



# STANDARD EQUIPMENT LIST FOR DIFFERENT LEVELS OF HEALTHCARE FACILITIES

WITH SETS COMPOSITIONS AND SPECIFICATIONS

MINISTRY OF HEALTH AND SANITATION AND UNICEF  
CMS COMPOUND, NEW ENGLAND, FREETOWN | SIERRA LEONE



Foreign, Commonwealth  
& Development Office

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## FOREWORD

With great honour, I congratulate the concerned MOHS Directorates and Program Offices, together with Health Development Partners (HDP), for coming up with this timely and useful document called Standard Equipment List (SEL) for Sierra Leone Public Health Facilities. I understand that this document has undergone several reviews and vetting by various medical specialists and experts from different fields and specialisations. I refer in particular to the main key players, the Hospital and Ambulance Services and Health System Strengthening and UNICEF, for spearheading the activities leading to the completion and finalisation of this SEL.

I should add that this SEL is an embodiment of the National Policy on Management and Maintenance of Medical Equipment and Devices, which was published and promulgated in February 2021. Policy 2: 'Establish evidence-based procurement'; Strategy 2.2 "Standardise the acquisition of medical equipment and devices". With this background, I am assured this SEL is firmly grounded on approved 'Policy' and, therefore, in the right direction.

With the SEL, concern Directorates and Office of the MOHS and the HDP are guided in acquiring and donating much-needed, expensive medical equipment and other health physical assets and infrastructure. It can also be the main reference material for other well-meaning donors and philanthropists on which equipment and items to donate based on the needs and health facility category. Wasteful and extravagant donations because of 'inappropriateness' can be avoided and prevented.

I, therefore, encourage the concerned MOHS Directorate, the Senior Managers, Procurement Units, the DMOs and MSs, including the equipment users and biomedical maintenance technicians, to use this document optimally in your day-to-day activities and decision-making. The same goes for HDPs planning to support the health facility with medical equipment and other physical health assets.

Likewise, it is my wish that the same group of people should review and update when necessary; this SEL every 2-3 years as technology, especially in the medical fields and the equipment attendant to it, is rapidly evolving and advancing at an unprecedented pace.

Again, my congratulations. Kudos and special thanks to UNICEF!

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Dr. Sartie M. Kenneh, MD, MPH  
Ag. CMO, MOHS

## ACRONYMS

ANC	Antenatal Care
BEmONC	Basic Emergency Obstetric and Neonatal Care
BPEHS	Basic Package of Essential Health Services
CEmONC	Comprehensive Emergency Obstetric and Neonatal Care
CHA	Community Health Assistant
CHC	Community Health Center
CHO	Community Health Officer
CHP	Community Health Post
CHP	Community Health Program
CHW	Community Health Worker
CSO	Civil Society Organization
CVD	Cardio-Vascular Disease
DHIS	District Health Information System
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DMO	District Health Officer
EHS	Essential Health Services
EmONC	Emergency Obstetric and Neonatal Care
ENT	Ear, Nose, and Throat
EPI	Expanded Program for Immunization
FMC	Facility Management Committee
GoSL	Government of Sierra Leone
HDP	Health Development Partners
HIV/AIDS	Human Immunodeficiency Virus / Auto-immune Deficiency Syndrome
HRH	Human Resources for Health
HSCC	Health Sector Coordinating Committee
iCCM	Integrated Community Case Management
IDSR	Integrated Disease Surveillance and Reporting
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IPC	Infection Prevention and Control
IYCF(N)	Infant and Young Child Feeding (Nutrition)
MCH Aide	Maternal and Child Health Aide
MCHP	Maternal and Child Health Post
MDG	Millennium Development Goals
MoHS	Ministry of Health and Sanitation
MS	Medical Superintendent
NCD	Non-Communicable Disease
NGO	Non-Governmental Organization
NHSSP	National Health Sector Strategic Plan
PHU	Peripheral Health Unit
PNC	Post-natal care
SECHN	State-Enrolled Community Health Nurse
SEL	Standard Equipment List
STI	Sexually Transmitted Infection
TB	Tuberculosis
UN	United Nations
UNICEF	United Nations Children's Emergency Fund
WHO	World Health Organization

TABLE OF CONTENTS

I. FOREWORD .....i

II. ACRONYM .....ii

III. TABLE OF CONTENTS .....iii

IV. INTRODUCTION .....1-6

PART I STANDARD EQUIPMENT LIST.....7

    PRIMARY HEALTH CARE FACILITY .....8-38

    SECONDARY HEALTH CARE FACILITY.....39-93

    TERTIARY HEALTH CARE FACILITY .....94-153

PART II SETS COMPOSITION AND EQUIPMENT SPECIFICATIONS.....153

    SETS COMPOSITION .....154-190

    EQUIPMENT SPECIFICATIONS .....191-333

        GENERAL AND COMMON EQUIPMENT .....192-213

        SOPHISTICATED AND COMPLEX .....214-244

        SPECIFIC SPECIALIZED EQUIPMENT .....244-270

        LABORATORY .....271-281

        ONCOLOGY,INTERNAL MEDICINE, INTENSIVE CARE UNIT  
AND OCCUPATIONAL THERAPY .....281-295

        EYE,EAR,NOSE AND THROAT .....295-304

        CASUALTY, ER,AND ICU .....304-308

        ACCIDENT AND EMERGENCY, AND HIGH DEPENANCY  
UNIT .....309-315

        UTILITIES .....315-320

        CUTLERY AND KITCHEN .....320-322

        DENTAL .....322-329

        NEPHROLOGY .....329-331

        PHYSIOTHERAPY .....331-333

REFERENCE .....334



## INTRODUCTION

Standard Equipment List (SEL) is introduced in the Ministry of Health and Sanitation (MOHS)-Sierra Leone as a reference list of suggested medical and non-medical equipment that should be made available in various health facilities across the country to ensure that quality health care is delivered at any given time. The overriding considerations in developing this list are efficiency and effectiveness, safety, affordability and sustainability in delivering culturally-acceptable and science-based health services.

Notwithstanding, the rapid advancement of technology has changed the landscape of medical sciences rendering most of the existing medical equipment and health infrastructure out-of-sync with the latest technology, thus 'obsolete'. Truth be told, this is not always the case. More often than not, 'appropriate technology' may not necessarily be 'obsolete'; however, it could be effective, efficient, and safe in many situations. This consideration is factored in the development of this list; hence, some may find it 'dull and unexciting'. Below are the considerations in the formulation of the list.

### Goal

- Efficiency and economy
- Standardise
- Quality of service
- Seamless referral system

### Bases

- Service package
- Health facility category
- Specialities and sub-specialities available and plans

Tertiary and speciality hospitals and, to some extent, secondary hospitals were treated with a broader perspective and given wider latitude in terms of future development; hence, various specialists from different departments were represented during the Workshop exercise.

However, the list should also be tempered with sometimes too high and advanced expectations from tech-savvy medical specialists and health experts. Since the list is dynamic, it is not designed as a tool to leap-frog from a developing health facility system to a first-world technologically - advanced health facility system. Hence, the list may look far from ideal to many because the development phase should be managed to a more reasonable and realistic step like in 5-10 years down the road.

Likewise, the existing health facilities, infrastructure, and utilities should also be considered, e.g. the physical dimension of the existing health facilities may not accommodate the suggested list; hence, in some instances, it may look futuristic. And this is the essence of this list to guide the decision-makers- health experts and specialists in managing the health system in its quest for its continuous development towards a more sustainable, effective, efficient and affordable public health system.

The other subtle intention of this list as one of the goals is to encourage standardisation in terms of specifications, quality and maintainability. With standardised specifications, built-in efficiency, spare availability and interchangeability, training of technicians and us

and familiarity of technicians and users in operation and maintenance. Further, there is the benefit of economy of scale as procurement can avail of cost reduction and other add-ons from the manufacturers and suppliers due to standardisation.

On the other hand, standardisation does not mean branding or limiting the number of certain equipment brands to 2-3, e.g. oxygen (O<sub>2</sub>) concentrator unit. Certainly not; it just means managing the technology introduced into the health system. In the same vein, the impact of the list is akin to the effect of standardisation; that is, the technology is appropriate in relation to health and human resources, culture-sensitive, outcome and cost-effective and safe.

### **PRIORITY SYSTEM**

The priority system used in this document is a simplified criterium to help set priorities and guides in procuring and acquiring medical and non-medical supplies and equipment and keeping inventory stocks. It is not meant to discriminate some items over others or, to put it simply, it is not intended to mean that other items are not as important as the other. On the contrary, all the items are important; hence they are included in the list. However, when faced with challenges like prioritisation, the high priority is given preference over the low or medium priorities. Categorising the items should be viewed relative to where the item is located or utilised and in that service area. The other way to look at it is the usefulness and contribution of that item relative to the delivery of health service in that particular area or department. Items are categorised as:

- High – items are crucial for providing basic health services.
- Medium – items are important but not crucial for providing basic health services.
- Low – items are used for a minor or self-limiting purpose.

High and medium items should be prioritised if funds are limited, and health facilities should always have these items in stock. Likewise, quantities indicate the needs, which can be fulfilled through many acquisition exercises. It also indicates the dimensions and sizes of the department or area where these items are used. Determination of quantities can be approximated using references like occupancy rate or admission rate in the hospital, utilisation rate of the health facilities and other similar indicators.

### **INTERPRETING THE DOCUMENTS**

The document is written so that the equipment is identified according to its standard nomenclatures like medical (medical anaesthesia, medical imaging and ultrasound), furniture ( medical furniture and office equipment) for ease of segregation, procurement, identification and classification. The equipment location is also differentiated by the common description of the location or areas in the health facility. These are described according to the building, department, and area description. Hence, the reader may find duplication of similar or same items repeated in different areas. The purpose of such is that, over time, MOHS eventually

expands and renovates its health facilities as the population increases and more people seek health services. This includes increasing the number of female examination rooms and wards, occupational therapy (OT) and intensive care unit (ICU). The SEL can be used as the guide as similar items can be made available in those additional areas or departments. The increase in the number of rooms and wards can be done with simplicity and relative accuracy by correspondingly increasing the quantity of the items with the number of rooms added. The expansion of health facilities as in increasing the number of rooms, areas, wards and buildings would require a corresponding increase in the quantity of medical and non-medical equipment, human resources, and the necessary utilities like electric power, water and communication facilities. In effect, the SEL has a bearing on the overall planning of establishing a new health facility or renovating and expanding existing ones in terms of its physical structure design and dimensions, human resource requirements, utilities and other inputs for its ergonomic and sustainable operation.

The documents are divided into two major components, part I is the equipment list, and part II is the standard specifications for common and sophisticated medical equipment and the composition of the sets. It should be remembered that technology is rapidly advancing and progressing at an unbelievable pace; hence, the list and specification should be revisited and adjusted to the needs of times and circumstances. Just make sure that the changes in the items are reflected in the specific areas where they should be.

It is worth noting that what comprises a diagnostic equipment set or hollow ware laboratory glass sets or instrument sets for anaesthesia, for example, are also included in Part II.

The principle of a referral system from primary health care units to the next higher level of health care is the overriding consideration in developing the SEL. Part 1 of the list is the minimum equipment that should be available in the primary health care facilities like Community Health Centres (CHC), Community Health Post (CHP), Maternal and Child Health Post (MCHP), the district, secondary and tertiary health facilities. This explains why the list of equipment in these levels of health care should also be hierarchical. It tells us that not all the items listed should be available in all the three categories of PHUs, and not all equipment for tertiary care should also be available at the secondary or district level. To distinguish the nuances, some items in the, like for CHCs and Basic Emergency Obstetric and Neonatal Care (BEmONC) sites only. It means these items should not be made available in the Community Health Post (CHP) and the Maternal and Child Health Posts (MCHP).

## **HEALTH SERVICES BY CATEGORY OF HEALTH FACILITY<sup>1</sup>**

### **I. PRIMARY HEALTH CARE**

<sup>2</sup>Primary-level hospital: few specialities—mainly internal medicine, obstetrics and gynaecology, paediatrics, and general surgery, or just general practice; limited laboratory services available for general but not specialised pathological analysis

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<sup>1</sup> SIERRA LEONE BASIC PACKAGE OF ESSENTIAL HEALTH SERVICES 2015-2020 pages 18-15

<sup>2</sup> Disease Control Priorities in Developing Countries | Martin Hensher, Max Price, and Sarah Adomakoh



- A. MATERNAL AND CHILD HEALTH POST (MCHP) – closest health facility to the community
  - Antenatal care, routine deliveries, immediate postnatal and neonatal care
  - Routine vaccination, treatment of childhood illnesses and malnutrition
  - Basic first aid
  - Community outreach services
  - Surveillance for epidemic-prone diseases
- B. COMMUNITY HEALTH POST (CHP) – Small towns
  - Some complicated pregnancies and complicated deliveries (may have a midwife on staff)
  - Treatment of some severe childhood illnesses
  - Surveillance for epidemic-prone diseases
- C. COMMUNITY HEALTH CENTRE (CHC) - Community Health Centre, Chiefdom level
  - BEmONC
  - Treatment of some severe childhood illness
  - Laboratory and pharmacy services
  - Screening and referrals for some NCDs
  - Surveillance and treatment of some epidemic-prone diseases

## II. SECONDARY HEALTH CARE

<sup>3</sup>Secondary-level hospital: highly differentiated by function with 5 to 10 clinical specialities; size ranges from 200 to 800 beds; often referred to as a provincial hospital

### A. DISTRICT HOSPITAL: District headquarter Town, near DHMT

- Comprehensive Emergency care, Obstetrics and Neonatal Care (CEmONC)
- Treatment of severe childhood illnesses, including severe acute malnutrition with complications
- Diagnosis and treatment of severe malaria
- Clinical management of NCDs
- Laboratory and pharmacy services, diagnostic imaging, blood services and surgery
- Surveillance, detection and treatment of epidemic-prone diseases
- Emergency triage

## III. TERTIARY HEALTH CARE

Tertiary Health care refers to **the third level of the health system**, in which specialised consultative care is provided, usually on referral from primary and secondary medical care. Examples of tertiary care services include cancer management, neurosurgery,

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<sup>3</sup> Disease Control Priorities in Developing Countries | Martin Hensher, Max Price, and Sarah Adomakoh

cardiac surgery, plastic surgery, treatment for severe burns, advanced neonatology services, palliative care, and other complex medical and surgical interventions.

<sup>4</sup>The primary function of the referral hospital is to provide complex clinical care to patients from lower levels; however, no agreed international definition exists of which specific services should be provided in secondary or tertiary hospitals in developing countries. The exact range of services offered tends to vary substantially, even between tertiary hospitals within the same country

Tertiary-level hospital: highly specialised staff and technical equipment— for example, cardiology, intensive care unit, and specialised imaging units; clinical services highly differentiated by function; could have teaching activities; size ranges from 300 to 1,500 beds.

- Comprehensive Emergency care, Obstetrics and Neonatal Care (CEmONC)
- Speciality and referral services
- Additional diagnostic imaging services
- Treatment of cancers and rare diseases

Some of the major departments are shown below.

- Surgery
  - General
  - Ortho
  - Urology
- Ob-gyn /Family Planning/Maternity
- Nephrology
- Laboratory and Blood bank
- Ear, Nose, and Throat (ENT)
- Pharmacy
- Dental
- Accident and Emergency (A&E) /minor theatre
- Maintenance Unit
- Intensive Care Unit (ICU)
- Laundry
- Pathology
- Paediatrics
- Cardiology
- Radiology
- Theatre; general and minor
- Central Sterile Services Department (CSSD)

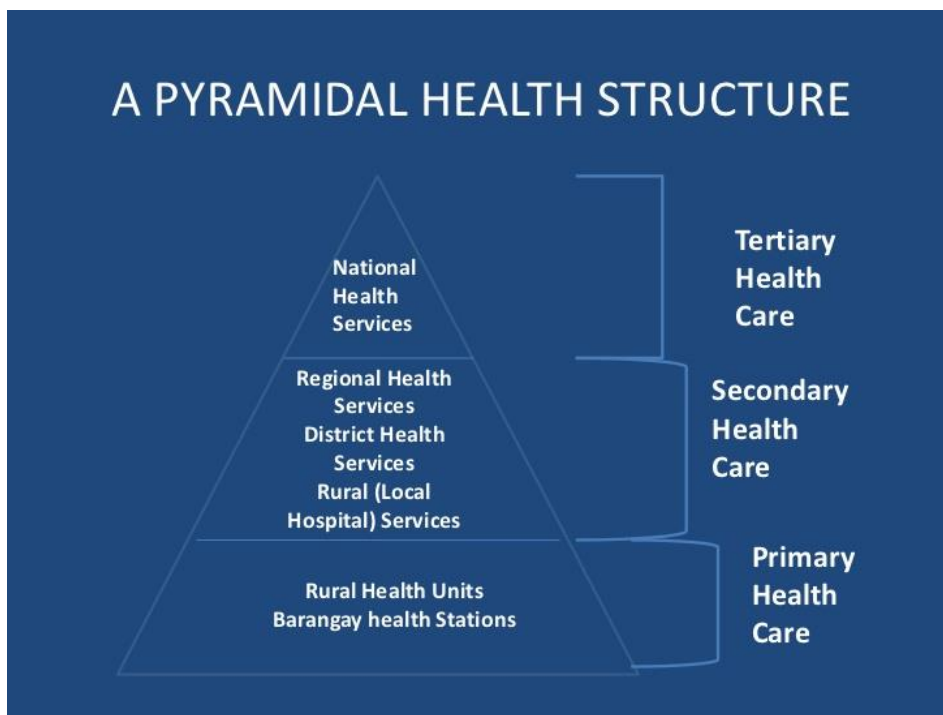
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<sup>4</sup> Disease Control Priorities in Developing Countries | Martin Hensher, Max Price, and Sarah Adomakoh

Source: Definitions from Mulligan and others 2003, 59 page 1230-31

- Eye
- Physiotherapy
- Kitchen/Dietary
- Mortuary
- Outpatient Department (OPD)
- Special Care Baby Unit (SCBU)

The typical pyramidal health structure is depicted below.



Note:

Rural Health Units and Barangay Health Stations are equivalent to PHUs.  
Courtesy of Philippine Government Ministry of Health/Department of Health

## PART I: Standard Equipment List

Serra Leone Public Primary, Secondary and Tertiary Public  
Healthcare Facilities

## Standard List of Equipment

### Archetypical Primary Health Care Facilities; Community Health Centers; Community Health Posts, and Maternal and Child Health Posts

Area: Triage and infection prevention and control

Nr	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Triage				
1	Chair, bench x 5, plastic	3	●		
2	Table, metal, 1300 x 700 mm	1	●		
3	Infrared thermometer	5	●		
4	Dustbin	2		●	
5	Veronica bucket	2	●		
6	Liquid soap	1			●
7	Bucket stand	2			●
8	Wastewater bowl	2	●		
9	Pulse oximeter, spot-check, handheld with respiratory rate (RR)	5	●		
10	Defibrillator, automated external defibrillators (AED)	2	●		
11	Examining lamp, angle-poise	5	●		
12	Resuscitator; manual	10	●		
13	Stethoscope	5	●		
14	Glucometer with microcuvettes	2	●		
15	Sphygmomanometer	5	●		
16	Wall clock	1	●		

Building: Outpatient Department

Department: Outpatient Department

Area: First Aid/Emergency

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Light, operating, mobile, LED; with rechargeable battery backup	1		●	
2	Light, operating, ceiling-mounted, LED, single dome head, 230 volts (V), 50 hertz (Hz)	1		●	
3	Table, operating, universal, mechanical, hydraulic; mobile operating table with manually operated functions; five-section	1		●	

	tabletop with separate pads of min 50 mm thickness for the head, back, seat and legs. Tabletop frame and column casting are entirely made of stainless chromium and nickel (Cr-Ni) steel, with solid base construction and a base cover made of CrNi steel.				
4	Oxygen concentrator; 10 litres per minute (LPM), 230 V, 50 Hz	1	●		
5	Sphygmomanometer, aneroid, desk type and on castors	1	●		
B. Equipment, medical, anaesthesia					
1	Resuscitator, manual, adult and infant, complete with mask	1	●		
2	Local anaesthesia (needle and syringe)	500	●		
C. Equipment, imaging, x-ray and ultrasound (for CHC and BEmOC sites)					
1	View box, x-ray	2	●		
2	X-ray machine; mobile, DR, battery-powered; 300 milliamperes (mA)	1	●		
3	Apron, leaded	2	●		
4	Ultrasound, portable, handphone compatible	1	●		
D. Equipment, medical, sterilisation					
1	Sterilizer, high-speed, tabletop, steam, semi-automatic, 230V, 50 Hz, 134 °C, 6-15 litres (L)	1	●	●	
E. Equipment, medical, surgical instruments					
1	Instrument set, dressing	2	●		
2	Instrument set, ENT, casualty (for CHC and BEmOC sites)	2	●		
3	Instrument set, stitch removing	2	●		
4	Instrument set, suture	2	●		
5	Chest drain set (for CHC and BEmOC sites).				
F. Equipment, Office					
1	Clock, digital, wall-mount, with day/date, temperature, °C/F and % RH; battery-operated, luminous even at daytime	1		●	
2	Kettle, water, boiling, 2 L, non-electric	1			●
G. Furniture, medical					
1	Cupboard, instrument, cabinet, metal frame, double, glass doors. Frame of 3mm mild steel. Sheet metal parts with epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. With 4 adjustable hardened glass shelves of 6 mm thickness. Dustproof. Door handles with security lock and 2 keys. Approximate size 750 (l) x 400 (w) x 1700 (h) mm	1		●	
2	Drip stand, height adjustable 1200-2200 mm, wide stance base with castors. Double hook rod includes a positive stop to avoid disengagement from the base rod. With metallic adjustable locking device. Epoxy finish, made of chrome-plated metal or stainless steel	5	●		

3	Screen, metal-framed four-sectioned mobile screen on castors. Approximate size 1800 mm height. 4 panels of 500 mm wide. Frame with chrome-plated or epoxy coating finish. Castors 50 mm diameter. Panels to have removable, washable cloth of 35% polyester and 65% cotton	5	●		
4	Bowl, kick, with stand and anti-static castors material 18/10 s/s. Mounted on 4 castors, diam. 40 mm.	2	●		
5	Stool, surgeon's, adjustable, anti-static cushion S/S; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm. On 5 anti-static swivel castors	3	●		
6	Stretcher, collapsible foldable emergency stretcher, made in anticorrosive, anodised aluminium with PVC-coated polyester sheet of 1 mm thickness to handle patient weight up to 130 kg. Fire retardant, foldable over width, approximate size (in open position): 2100 (l) x 500 (w) x 140 (h)mm	3	●		
7	Trolley, dressing, with shelves, 600 (l) x 450 (w) x 800 (h) mm tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Complete with: - Stainless steel bottle rack - Rectangular, detachable waste bin attached underneath the top shelf. Capacity of waste bin approximately 4 L - stainless steel bowl of approximately 320 mm diameter; approximately 4 L	2	●		
8	Wheelchair, adult; 4 wheels (2 rear wheels and 2 front swivel castors, seat and backrest providing sitting support for the wheelchair user, foot supports, armrests, rear wheel locks (to park the wheelchair),; folding frame, push handles integrated seat and backrest upholstery, preset tilt head support, wheels and castors two (2) larger rear wheels of 12" or greater single (12" or greater) or dual (7" or greater) front castors COG frame adjustments	2	●		
9	Hand washing, bucket with cover and tap, stand and basin, plastic, 4 L	1	●		
H.	Furniture, Office				
1	Bench, 4 seats, plastic	10		●	
2	Cupboard, lockable for drugs, storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard is to be in two separate sections, divided horizontally, each section with two doors. The upper section is prepared for tablet and dangerous drugs storage, and the lower for 500ml 5l stock bottles of medicines.	2	●		
3	Chair, armchair, with backrest, cushioned, back and seat	4		●	
4	Table, wood with 3 drawers, lockable	2		●	

5	Dust bin	2			●
6	Hollow ware set	1		●	
7	Tray instrument, set of 3 sizes with cover, S/S	2		●	

Area: Outpatient Department, Examination Room (Consultation Room)

Nr	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Chart, eye, vision testing, Snellen, alphabet/iLate	1		●	
2	Weighing scale, adult, physician, metric, 140 kg x 100 g; with height measurement in metric	1	●		
3	Weighing scale, baby, basin type, 10 kg, 10 grams scale; digital; battery and power adaptor supply	1	●		
4	Weighing scale, toddler, spring type	1	●		
5	Reflex hammer, rubber, solid	1			
6	Suction machine; electric and manual; 1-jar. With accessories and spares	1			●
7	Proctoscope, adult and child	1		●	
8	Speculum, vaginal, small, medium, large	1		●	
9	Depressor, tongue, adult/child; wooden	5	●		
10	Sphygmomanometer, aneroid type	2	●		
11	Poised lamp, free standing	2		●	
B. Equipment, office					
1	Clock, wall, digital, with day/date, temperature, °C/F and % RH; battery-operated, luminous even at daytime	1		●	
2	Kettle, electric water heater	1			
C. Equipment, medical instruments					
1	Diagnostic set	1	●		
2	Tonometer (for CHC and BEmOC sites)	1		●	
D. Furniture, medical					
1	Examination couch, with polyurethane covered-mattress, adjustable; 2 sections (knock-down construction): 1800 mm (l) x 750 mm (w) x 760 mm (h). Folding table with top in two sections. Drop leaf section (headpiece) 490 mm (l) x 750 mm (w). Removable and adjustable by ratchet type frame. Frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2 mm thickness. With crossbars for stability. Square section ends to be fitted with rubber or plastic bungs. Sheet metal parts minimum 1.5 mm thickness.	2	●		
2	Screen, four-fold, on castors; Metal framed four-sectioned mobile screen. Approximate size 1800 mm height. 4 panels of 500 mm wide. Frame with chrome-plated or epoxy coating finish. Castors 50 mm diameter. Panels to have removable, washable cloth of 35% polyester and 65% cotton.	4	●		



3	Hand washing; water container with a tap, on the stand; 20 L, with basin	1			●
4	Trolley, instruments with S/S shelves, anti-static castors, 600 x 450 x 850	1	●		
E. Furniture, Office					
1	Chair, arm, plastic; monoblock	2		●	
2	Cupboard, high, metal with glass and lock and key	1	●		
3	Desk, wood, 3 side drawers	1		●	
4	Filing cabinet, 4 drawers; steel, with lock	1		●	
5	Chair, armchair office, with backrest; adjustable height	1		●	
6	Bench, 4 seats, plastic, fabricated	3			●
7	Basket, waste, paper	1			●
F. Hollow ware/containers					
1	Dust bin	2			●
2	Hollow ware, set, consulting room	1		●	
G. Equipment, medical, laboratory					
1	Glucometer	2	●		
2	Hemoglobinometer	2	●		

Area: Outpatient Department treatment/medical observation room (general consultation for Community Health Officer)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Light, examination, LED, articulated, floor standing on castors, 230 V, 50 Hz	1	●		
2	Suction machine, electric, 2-jar, 1.5 l, 230 V, 50 Hz, mobile	1		●	
3	Suction machine, manual, 1-jar, portable	1	●		
4	Nebulizer, electric, 230 V, 50 Hz	1		●	
5	Sphygmomanometer, aneroid type, tabletop, mobile on castors and wall-mount	2	●		
B. Equipment, medical, surgical instruments					
1	Instrument set, dressing	2	●		
2	Instrument set, ENT, casualty (for CHC and BEmOC sites)	2	●		
3	Instrument set, stitch removing	2	●		
4	Instrument set, suture	3	●		
C. Furniture, medical					
1	Bed with mattress and bedside table	3	●		
2	Cupboard, instrument	1		●	
3	Drip, stand	3		●	
4	Screen, four-fold	2		●	
5	Bowl, stand, kickabout	2		●	

E.	Hollow ware/containers				
1	Dust bib, S/S, pedal, 15 L	1			●
2	Tray, instruments, S/S, 3 sets of 3 sizes	1		●	

Area: Outpatient Department, Family Planning (Maternal and Child Health)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical and surgical instruments				
1	Instrument set, insertion/removal, IUCD	2		●	
2	Sphygmomanometer; aneroid type	2		●	
3	Norplant set	2		●	
4	Diagnostic Set	2		●	
5	Forceps, sponge, holding	5		●	
6	Gallipots; reusable, polypropylene or S/S; autoclavable up to 135 °C	4		●	
7	Drum, sterilising, small and medium	2		●	
8	Forceps, curved artery, small	4		●	
9	Forceps, straight, artery, small and large	4		●	
10	Bowl, medium size	3		●	
11	Receiver, medium size	3		●	
12	Tray, S/S	2		●	
13	Forceps, cheatle, S/S	2		●	
14	Holder, cheatle; S/S or hard plastic	3		●	
15	Scissors, curved and straight, S/S	2		●	
16	Tubal ligation and vasectomy sets	1			●
17	Speculum, small; S/S	5		●	
18	Stethoscope, Littman type	2		●	
19	Foetal, monaural	1			●
20	Pinard, plastic	1			●
21	Scope, vaginal and foetal	1	●		
22	HPV screening set	1	●		
B.	Equipment; medical				
1	Weighing scale, bathroom type, metric, 125 kg x 500 g	1		●	
2	Light, examining, floor standing, articulated, LED, 230 V, 50 Hz	1		●	
C.	Furniture, medical				
1	Examination couch, local, with stirrups; steel, with polyurethane covered-mattress, adjustable	1		●	
2	Stool, s/s; adjustable height	1		●	
3	Screen, four-fold, with anti-static castors	1		●	
D.	Furniture, office				
1	Chair, arm, plastic; monoblock	2		●	

2	Desk, wood, with 2 x drawers 1600x750 mm	1		●	
3	Chair, armchair office, with backrest; adjustable height	1		●	
4	Shelves, aluminium, customised	1		●	
E. Hollow-ware / containers					
1	Dustbin	1			●
2	Hollow ware set, laboratory	1		●	
F. Equipment, glassware					
1	Glassware set, laboratory, EAU	1		●	
G. Equipment, medical, laboratory					
1	Centrifuge, electric, 4-8 buckets, with graduated tubes	1	●		
2	Centrifuge, manual, 4 buckets, with graduated tubes	1	●		
3	Hemoglobinometer; Hemocue type. +301 with micro cuvettes	1	●		
4	Glucometer, Hemocue type, +201 with microcuvettes	2	●		
5	Rack, staining for 25 slides	1		●	
6	Slide holder, microscope	1		●	
7	Forceps, stainless steel	1	●		
8	Rack, S/S, 12-hole	1	●		
9	Refrigerator, 12 cu. ft	1			●
10	RVS testing machine	2	●		
H. Equipment, medical, sterilisation					
1	Sterilising unit, pressure cooker type, steam, double rack, fire-heated	1		●	
I. Furniture, medical					
1	Hand washing, water container with a tap, on the stand, with basin	1			●

Area: Outpatient Department, Store/ Expanded Program for Immunisation

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, refrigeration					
1	Cold box, insulated, vaccine storage, 27 L	6	●		
2	Refrigerator, electric/solar; gas;	1	●		
3	Vaccine carrier; 3 L. 4 icepacks	2	●		
4	Vaccine refrigerator; solar-powered; compressor-less	2	●		
B. Furniture, office					
1	Cupboard, high, metal with glass and lock and key	1		●	
2	Shelves, aluminium; customised	1		●	
3	Desk, wood, with 2 x drawers 1600 x 750 mm	1		●	
4	Chair, arm, plastic; monoblock	3		●	
C. Sundries, domestic					
1	Cleaning utensils, set	2		●	
	Sponges and scourers	2		●	

	Yellow dusters/microfibre cloths	2		●	
	Glass polishing cloths	2		●	
	Cleaning brushes	4		●	
	Mop and bucket	1		●	
	Dustpan and brush	1		●	
	Gloves; Protective; rubberised/latex pairs	10		●	
	Plastic caddy to carry the essentials	1			●
	Zip-lock bag; packets	10		●	
D.	Equipment, communication, office				
	iPod or desktop computer, or laptop	1	●		

Area: Outpatient Department, Treatment Room (Under-five Consultation Room)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, domestic, kitchen				
1	Stove, kerosene, 1.2 L; single burner; wick type, with 3 spares; 4-6 L tank capacity; up to 8 kg weight; adjustable thermostat	1	●		
2	Kettle, boiling water, 2 L	1	●		
B.	Equipment, medical				
1	Oxygen Concentrator; 10 LPM with accessories and spare parts; 230 V, 50 Hz	1	●		
2	Light, examining, floor standing, articulated, LED, 230 V, 50 Hz	1		●	
3	Suction machine, manual; 1-jar with accessories and spares	1	●		
C.	Equipment, medical, sterilisation				
1	Sterilising unit, steam, non-vacuum, vertical, fire-heated, medium, 39 L	1	●		
2	Drum, sterilisation, medium	1	●		
3	Drum, sterilisation, small	1	●		
D.	Equipment, medical instruments				
1	Diagnostic equipment set	2	●		
2	Instrument set, dental, tooth extraction, basic	1	●		
3	Instrument set, dressing	1	●		
4	Instrument set, foreign body removal	1	●		
5	Instrument set, incision and drainage of abscess	1	●		
6	Instrument set, stitch removing	1	●		
7	Instrument set, suture	1	●		
8	Manual vacuum aspirator (MVA)	1	●		
9	Cheatle forceps in a container	1	●		
E.	Furniture, medical				
1	Drip stand, double hook, adjustable height, on castors	2	●		
2	Screen, four-fold, on castors	2	●		
3	Stand, bowl, kick-about; Made from 18/10 stainless steel. Mounted on 4 casters y 40 mm.	2	●		

4	Stretcher, collapsible; Foldable emergency stretcher, made in anti-corrosive, anodised aluminium with PVC-coated polyester sheet of 1 mm thickness. For the maximum patient weight of 130 kg. Fire-resistant, folding-over; width, approximate size (in open position): 2100 (l) x 500 (w) x 140 (h) mm	2	●		
5	Water container with a tap, on the stand, Capacity of container 20 L, with basin	1		●	
6	Trolley, instrument, with shelves, S/S, large, 900 (l) x 600 (w) x 800 (h) mm. 600L x 450W x 800H mm; Tubular or rectangular frame with 2 fixed S/S shelves, 150 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Size: approximately 900 (l) x 600 (w) x 800 (h) mm	1		●	
7	Operating Table, gynaecological and surgical; mechanical; hydraulic; manual motion; mattress 2 inches; adjustment, length of tabletop: 204 cm, width of tabletop: 52 cm.; Safe Operating Load including mattress and accessories): 180 kg; weight: approximately 150 kg; Patient Straps: 2; Foot and hand Control: Activates all motion	1	●		
8	Wheelchair, adult; 4 wheels (2 rear wheels and 2 front swivel castors, Seat and backrest providing sitting support for the wheelchair user, foot supports, armrests, rear wheel locks (to park the wheelchair); Folding frame, push handles integrated seat and backrest upholstery, Preset tilt Head support, Wheels and Castors Two (2) larger rear wheels of 12" or greater Single (12" or greater) or dual (7" or greater) front castors clinical oncology group (COG) frame adjustments	2	●		
F. Furniture, office					
1	Cupboard, high, metal with glass and lock and key	1		●	
2	Stool, S/S; adjustable height	2		●	
G. Hollow-ware/containers					
1	Box, instruments, S/S, w/knobbed cover, 300x200x50 mm	1			●
2	Container, for sharps, for approximately 250 needles	5		●	
3	Dustbin	1			●
4	Hollow ware, set, treatment room	1		●	
5	Tray, instrument, set of 3 sizes, covered, s/s, 305 x 254 x 51mm	1		●	

Department: Maternity (for Community Health Centres and Basic Emergency Obstetric and Neonatal Care Sites)

Area: Nurse Duty Station/Changing Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, domestic					
1	Fan; electric, 16 inches blade, 230 V; 50 Hz	1	●		
2	Lamp, table; emergency; LED; rechargeable	1		●	

B.	Furniture, medical				
1	Hand washing; water container with a tap, on the stand; 20 L, with basin	1			
C.	Furniture, office				
1	Dust bin	1			●
2	Bench, wood, small; 4 seats; fabricated	1		●	
3	Chair, armchair office, with backrest; adjustable height	2		●	
4	Chair, arm, plastic; monoblock	2		●	
5	Desk, wood, with 2 x drawers 1600 x 750 mm	1		●	

Area: Sluice Room; Observation Ward, Maternity

Nr	ITEM/DESCRIPTION	QT Y	PRIORITY		
			H	M	L
A.	Furniture, medical				
1	Trolley, distribution, laundry, rails & shelves, Tubular or rectangular frame with three fixed S/S shelves, 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1.5 mm thickness. Steel tubing frame with epoxy coating finish, three fixed S/S shelves, swivel castors. Diameter castors 200 mm Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	1		●	
2	Trolley, soiled linen, double bag; Tubular or rectangular frame on 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of chromium-plated or S/S. Thickness of tubing 2 mm. Provision to hang 2 removable collection bags of 450 mm diameter, Collection bags of linen canvas. With one spare bag. Size: approximately 900 (l) x 450 (w) x 950 (h) mm.	2		●	
B.	Hollow ware/containers				
1	Dustbin	1			●
C.	Sundries, domestic				
1.	Cleaning utensils, set	1			●
	Sponges and scourers				
	Yellow dusters/microfibre cloths				
	Glass polishing cloths				
	Cleaning brushes				
	Mop and bucket				
	Dustpan and brush				
	Protective gloves				
	Plastic caddy to carry the essentials				
2.	Laundry/linen bag	1		●	

Area: Store, Observation Ward, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Shelves, plastic; customised	3		●	
2	Ladder, 3-4 steps, aluminium; single	1			●
3	Racks, storage, set	2		●	

Area: First Stage Labour, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Detector, foetal heart, ultrasonic, portable, Doppler	5	●		
2	Stethoscope, foetal monaural, Pinard, plastic	3	●		
3	Weighing scale, adult, bathroom type, digital, kg/lbs. up to 150 kg/300 lbs, 0.5 kg/1 lbs graduation	3	●		
4	Oxygen Concentrator, 10 LPM with flow splitter and accessories	2		●	
5	Cylinder, 40 L, oxygen, complete with regulator, flowmeter and humidifier	1		●	
6	Stool	3	●		
7	Handwashing, bucket, 20 L, with a tap, stand and basin	2			●
8	Sphygmomanometer, aneroid, portable and on castor	2	●		
	Sphygmomanometer; Cradle type	3	●		
9	Thermometer, digital, non-mercury	3	●		
	Thermometer, Infrared, non-contact	3	●		
B.	Equipment, medical, surgical instruments				
1	Diagnostic set	1	●		
C.	Furniture, medical				
1	Drip stand, double hook	3	●		
2	Hospital bed, adult	3	●		
3	Mattress for hospital bed, adult, washable, 4 inches thick, polyurethane material	3	●		

Area: Midwife Office, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Dustbin with cover	2			●
2	Chair, office, seat, arm and backrest cushion, on castors	1		●	

3	Chair, stackable, metal, with backrest, and cushion, seat, and backrest	4		●	
4	Cupboard (metal cabinet – large)	1		●	
5	Desk, wood, with drawers	1		●	
6	Kettle, boiling, 2 L	1			●
7	Tiling	1			●
8	Clock; battery operated	1			●
9	Computer and accessories or laptop	1		●	
10	Wall Fan, 16 inches	1			●

Area: Delivery Room, Ward, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, domestic				
1	Lamp, pressure, paraffin, 400mm, 1.1 L	3		●	
2	Lamp, LED; rechargeable; solar	2	●		
3	AC, split type; 230V, 50 Hz, 1KW	1			●
B.	Equipment, domestic, kitchen				
1	LP Gas and stove	1		●	
C.	Equipment, domestic, lighting				
1	Light, emergency, solar, rechargeable	1	●		
2	Standby generator; 10 KVA; 3-phase, 400/230 V; 50 HZ, 1500 rpm	1	●		
D.	Equipment, medical				
1	Delivery bed; three-sectioned impervious covered, 100m deep anti-static mattress. Frame made of tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2mm thickness. Frame to be made of mild steel with an epoxy coating or stainless steel. Square section ends to be fitted with rubber or plastic bungs. Trendelenberg and sitting position achievable. Mattress section to be removable; adjustable bracket to raise to approximately 70°. Accessories include detachable side rails, lock-in lithotomy poles with straps, a deep s/s swab receptacle on a sliding bracket and an IV pole. Approximate size 1900(l) x 800(w) x 800(h) mm, width not < 800 mm	5	●		
2	Weighing scale, baby, basin type, 10 kg, 10 grams scale; digital; battery and power adaptor supply	2	●		
3	Suction machine, manual; 1-jar with accessories and spares	5	●		
4	Suction machine, electric; 2-jar with accessories and spares	1			●
5	Vacuum extractor; with the case, S/S, Bird's modification of maelstrom	2		●	
6	Kiwi -plastic disposable - accessory to a vacuum extractor	5		●	
7	Light, operating, mobile, LED, 60-80 K Lux at a distance 1 meter from the light source; luminance field adjustable, 15-25 cm; on castor	2	●		



7	Resuscitation Table with warmer; 230 V, 50 Hz ( for CHCs and BEmOC centres)	2	●		
8	Detector, foetal heart, ultrasonic, portable, Doppler	4	●		
9	Wheelchair, adult	2		●	
10	Stretcher, collapsible	1		●	
11	Delivery kit consisting of 2 small and large kidney dishes each, episiotomy scissors, stitch scissor, 2 cord clamps, dissecting forceps and needle holder; sutures; cord ligatures and consumables	4	●		
12	Obstetric forceps; Wrigleys and mid-cavity forceps, e.g. Neville Barnes or Anderson's	4	●		
13	Speculum, artery	4	●		
E. Equipment, medical, anaesthesia					
1	Resuscitator, manual (Ambu bag), infant and neonatal with a mask of various sizes	3	●		
2	Resuscitator, manual (Ambu bag) – adult size	2	●		
3	Oxygen Concentrator; 230 V, 50 Hz; 10 LPM, with spares and accessories and flow splitter	1	●		
4	Cylinder, 40 L, oxygen, with pressure regulator, flowmeter, 0-10 LPM and humidifier bottle	2		●	
5	Suction machine; 2-jar, 2.5 L, electric, 230 V, 50 Hz, mobile	1		●	
6	Suction machine; 1-jar, 2.5 L, manual, 230 V, portable	1		●	
F. Equipment, medical, sterilisation					
1	Sterilising unit, steam, pressure cooker type, double rack, fire-heated; non-vacuum	1	●		
2	Autoclave, table-top type, steam; semi-auto; high speed; 4-10 minutes; 134 °C max temperature, Class III, timer 0-60 minutes; sterilizing plate 3 pieces; 5 L; CE, ISO13485	1	●		
G. Equipment, medical instruments and surgical					
1	Diagnostic equipment set	2	●		
2	Instrument set, delivery and suturing	5	●		
3	Instrument set, episiotomy and tears, extra	3	●		
4	CS set; several kinds of scissors (bandage, Metzenbaum, straight and curved Mayo), several kinds of clamps (Kelly, Kocher, Allis, Babcock), sponge forceps, several kinds of tissue forceps (Adson, Russian, Ferris Smith, smooth), retractors (bladder blade, Army Navy, Richardson), knife handles, needle	2	●		
5	Instrument set, dressing	4	●		
6	Needle holders	4	●		
7	Dissecting forceps	5	●		
8	Cord clamps	20	●		
H. Equipment, office					
1	Clock, wall type, digital, battery-operated, with Temperature C/F, % RH, Alarm, day/date, luminous, even daytime	1		●	

I.	Furniture, medical				
1	Cot, baby (bassinet) with mattress with cleanable cover and trolley; plexiglass bed; epoxy-coated steel tube or electrostatic powder-coated metal frame, 4-wheel castor with brakes	4	●		
2	Drip stand, double hook, adjustable height, on castors	3	●		
3	Screen, four-fold, on anti-static castors	4		●	
4	Stool, surgeon's, adjustable height, S/S				
5	Trolley, an instrument with S/S shelves, anti-static 150 mm swivel castors, Tubular or rectangular frame with two fixed S/S shelves. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	2	●		
6	Instrument trays	4	●		
7	Water container with a tap, on the stand, Capacity of container 20 L, with basin	1	●		
J.	Furniture, office				
1	Cupboard, high, metal with glass and lock and key	1	●		
2	Chair, stackable, with backrest, metal frame, cushion seat and backrest	1	●		
K.	Hollowware/containers				
1	Container, for sharps, for 250 needles/blades approximately plastic/carton; round or rectangular-shaped opening	10	●		
2	Dustbin with bin bags /biohazard plastic	3			●
3	Hollow ware, set, delivery room	1		●	
4	Tray, instruments	3	●		

Area: Holding Room (Antenatal Room), Wards, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, medical and diagnostic instruments				
1	Bedside locker/table; wood, with lock and key drawer; Formica-covered top; open cabinet	5	●		
2	Drip stand, double hook, adjustable height, on anti-static castors	2	●		
3	Hospital bed, adult; 2000 (l) x 900 (w) x 600 (h) mm, with backrest is adjustable up to 30° in 3 steps of approximately. 10°; Mesh size and bed reinforcement to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm. Bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. Square section ends to be fitted with rubber or plastic bungs. The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively. Epoxy	5	●		

	finish. Collapsible slide rail with spring hook security system; with washable covered- mattress; 4-inch thick				
4	Sphygmomanometer	4	●		
5	Examination, couch	2	●		
6	Thermometer; infrared	3	●		
7	Thermometer; digital	3	●		
8	Portable Scanner/Ultrasound compatible with handphone	1		●	
B.	Hollowware/containers				
1	Dustbin	2			●
2	Hollow ware set for duty station	3		●	
C.	Textile, domestic				
1	Bed net, mosquito, single bed; white polyester material; 65% cotton	15		●	
2	Bed linen – cotton	15	●		

Area: Manual Vacuum Aspiartor Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, medical and equipment medical				
1	Lamp/light, angle poised; LED headlight	3	●		
2	Trolley, instruments	1	●		
3	Trolley, medicine/drugs; tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm. With push handle and lockable drawer fixed underneath a top-shelf. Size of drawer approximately 250 (w) x 250 (h) x 450 (d). mm. All S/S sheet metal of 1,5 mm thickness.	1	●		
4	Stool, surgeon's, adjustable height	2	●		
5	Examining couch, with stirrups; 2 section (knock-down construction): 1800 mm (l) x 750 mm (w) x 760 mm (h). Folding table with top in two sections. Drop leaf section (headpiece) 490 mm (l) x 750 mm (w). Removable and adjustable by ratchet type frame. Frame made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. With crossbars for stability. Square section ends to be fitted with rubber or plastic bungs. Sheet metal parts minimum 1.5 mm thickness.	1	●		
6	Bin, pedal	2	●		
7	Cupboard with transparent doors and fitted on the wall top	1	●		
8	Sphygmomanometer, aneroid, portable and mobile on castors	2	●		
9	Thermometer, digital, clinical	1	●		
10	Drip stand, double hook	1	●		
11	Infusion pumps	1	●		
12	Suction machine, electric and manual	1	●		

B.	Equipment, medical instruments				
1	MVA sets	2	●		
C	Hollow ware/containers				
1	Instrument tray	2	●		
2	Instrument sets	2	●		

### Department: Laboratory

Area: Counter/Reception

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Basket, waste, paper	1			●
2	Stool, with backrest; wood, seat and backrest with cushion; with footrest; Stainless steel; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm. On 5 anti-static swivel castors (4 for other PHUs; 6 for CHCs)	6	●		
3	Bin, waste; non-biodegradable	2			●

Area: Main Laboratory (for Community Health Care Centres and Basic Emergency Obstetric and Neonatal Care Site)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, domestic				
1	Thermometer; wall mounted, digital; room temperature; °C/°F; battery operated; day/date, % RH	1		●	
B.	Equipment, domestic, kitchen				
1	Hot plate; heating plate size: 250 x 300mm; mild steel sheet powder coated body, heating element placed underneath, insulated; up to 150 °C, power regulator controller	1			●
C.	Equipment, glassware				
1	Glassware/plasticware, set, laboratory	2	●		
2	Level Pipetter, volumetric, graduated (2, 10, 20ul)	2	●		
3	Stethoscope	2		●	
4	Sphygmomanometer; digital	2		●	
D.	Equipment, medical, laboratory (only for CHCs and BEmOC sites)				
1	Balance, laboratory, single pan, 2500 g / 0.1 g	1	●		

2	Balance, laboratory, single pan, precision, 300g/0.01g	1	●		
3	Burner, Bunsen	1	●		
4	Centrifuge, bench type, electric, 12-placer; 230 V, 50 Hz	1	●		
5	Centrifuge, haematocrit, electric, with a reader	1	●		
6	Counter, differential, mechanical, 8-keys	1	●		
7	Counting chamber, Fuchs-Rosenthal ruling	1	●		
8	Distilling unit, electric, 4 L/h	1	●		
9	Haemoglobinometer, Hemocue +301 type; with micro cuvettes	1	●		
13	Microscope, laboratory, binocular, moving mechanical stage, objectives: 10x, 40x, 100x; ocular: 10x; electric	2	●		
14	Pipette, volumetric, micro, set	1	●		
15	Shaker, VDRL, rotator variable, electric, VDRL tests	1			●
16	Tally counter	1	●		
17	Timer, interval, digital, 60 minx1min, with signal, spring-wound	1		●	
18	Urinometer, specific gravity, with test glass and sticks	1	●		
19	Rapid Test Kit – HIV	1	●		
20	Incubator 40 ltr, temperature range 10-100c	1	●		
21	Mixer, vortex, mechanical; 0-3,000 rpm; continuous or touch operating modes; 230 V, 50 Hz	1	●		
22	Glucometer; Hemocue type +201 with microcuvette	1	●		
E. Equipment, medical, sterilisation					
1	Sterilising unit, dry heat, medium, 20 L	1	●		
2	Sterilising unit, steam, non-vacuum, vertical, electric, medium, 39 L	1	●		
F. Equipment, medical instruments					
1	Instrument set, laboratory, basic	1	●		
G. Equipment, office					
1	Clock, wall type, digital, battery-operated, with Temperature C/F, % RH, Alarm, day/date, luminous, even daytime	1		●	
2	Desktop Computer set with printer; Uninterrupted power supply; Automatic voltage regulator	1		●	
3	Desk calculator	1		●	
H. Equipment, refrigeration					
1	Refrigerator, electrical, compressor type, 220 L	1	●		
2	Refrigerator-freezer, electric/gas, absorption-cycle, 230ltr	1	●		
3	Thermometer, fridge-freezing equipment	1	●		
I. Furniture, medical					
1	Water container with tap, capacity of container 10-25 L, with basin	1		●	
J. Furniture, office					
1	Basket, waste, paper	1	●		
2	Bench, plastic, 4 seats, fabricated	2	●		

3	Chair, stackable, with backrest, metal frame, cushion seat and backrest	1	●		
4	Cupboard; lockable storage. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors.	1	●		
5	Stool; Stainless steel; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm, on 5 anti-static swivel castors.	1	●		
6	Office Desk; metal/aluminum material, with 2 x drawers 1600 x 750 mm; lockable	1	●		
7	Computer Desk; wood; with 2 x drawers, 1600 x 750 mm; lockable		●		
8	Filing cabinet, metal, 4 drawers; lockable	1		●	
9	Specimen carrier	2		●	
K.	Hollow ware/container				
1	Hollowware set, laboratory	1		●	
L.	Tools, miscellaneous				
1	stroboscope, handheld	1			●

Area: Store, Laboratory

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Racks, storage, set; shelves, metal, angular-shaped bars with holes; adjustable shelves height	3	●		

Area: Blood Bank (for Community Health Centres and Basic Emergency Obstetric and Neonatal Care Sites)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, refrigeration and medical				
1	Blood bank refrigerator with 24-hr recorder; thermostat control - 2 °C to 6 °C; audio and visual temperature failure setting alarm; 230 V, 50 Hz, with AVR 169-250 V range, 1000 W, lockable; transparent door, with shelves and analogue thermometer reader, 12-16 cu. ft	1	●		
2	Water bath; 230 V, 50 Hz with AVR 500 W;	1		●	
3	Serology centrifuge; 230 V, 50 Hz, with AVR 500 W; 24-placer	1	●		
4	Deep Freezer; chest type, 2-door, transparent; lockable; 230 V, 50 Hz, with AVR 169-250 V range, 1000 W				

5	Cold chain boxes; 100 mm thick;6-15 L capacity; CFC-free polyurethane insulation material, LLDPE material, with locks and ice packs, 0.4 L, HDPE material	2		●	
6	Thermometer, dial type, analogue, 2-3 diameter	3	●		
<b>B. Equipment, medical</b>					
1	Weighing scale, adult, bathroom type, mechanical or digital, settable to Kg and Lbs.; 0-150 kgs; 0.5 kg/1 lbs. scale	1	●		
2	Blood grouping tiles	1	●		
3	Blood weighing scales	1	●		
<b>C. Furniture, Office</b>					
1	Donor bleeding couch	1	●		
2	Chair	1		●	
3	Table	1			●

Area: Treatment Room, Dental Department (for Community Health Centres and Basic Emergency Obstetric and Neonatal Care Sites)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
<b>A. Equipment, medical (for CHC and BEmOC sites)</b>					
1	Light, examining, articulated, LED, floor standing on castor	1	●		
2	Suction machine, portable, 1-jar, electric, 230 V, 50 Hz, with vacuum pressure adjustment, complete with accessories and spares	1	●		
3	Sphygmomanometer, aneroid type, floor standing on castor	1	●		
<b>B. Equipment, medical, anaesthesia and imaging x-ray</b>					
1	Gags, mouth	1		●	
2	Panoramic, wall-mounted	1		●	
3	Film processor, tabletop, manual	1		●	
4	Film viewer	1		●	
5	View box	1			●
<b>C. Equipment, medical, dental</b>					
1	Dental chair, hydraulic, mechanical/electric	1	●		
2	Dental Unit; complete with cuspidor, air compressor, LED operating view light, air turbine and handpieces, suction unit and table mayo	1	●		
3	Amalgamator	1	●		
4	Ultrasonic scaler	1	●		
5	UV light, composite curing machine	1	●		
<b>D. Equipment, medical, sterilisation</b>					
1	Sterilising unit, steam, non-vacuum, vertical, electric, medium, 39 L	1			
<b>E. Equipment, medical, surgical instruments</b>					

1	Instrument set, dental, hand	1	●		
2	ART instrument set (Atraumatic Restorative Treatment)	1		●	
3	Scissors, Mayo	1	●		
4	Forceps, wire	1	●		
5	Forceps, tissue holder	1	●		
6	Scalpel blades	1	●		
F. Furniture, medical					
1	Cupboard, instruments; Lockable storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard is to be in two separate sections, divided horizontally, each section with two doors.	1		●	
2	Stool, surgeon; Stainless steel; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm. On 5 anti-static swivel castors	1		●	
3	Trolley, instruments; Tubular or rectangular frame with two fixed S/S shelves, 150 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	1		●	
4	Desk	1			●
5	Chair, stackable	1			●
6	Cabinet, instrument	1	●		
G. Furniture, Office					
1	Chair	1	●		
2	Desk	1	●		
3	Cupboard	1		●	
4	Dust bin	1		●	
5	Hollow ware instrument	1		●	
6	Tray, instrument set of 3 sets cover, S/S, 305 x 254 x 51 mm	1		●	

**Department: Radiology (for Community Health Centres and Basic Emergency Obstetric and Neonatal Care Sites)**

Area: X-ray Reception

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Bench	1	●		
2	Chair	1	●		
3	Desk	1	●		
4	Cabinet, filing	1		●	
5	Basket, waste, paper	1			●



6	Cupboard	1		●	
7	Stool	1		●	

Area: X-ray Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical, imaging x-ray					
1	Light, examination, table model, articulated	1	●		
2	X-ray unit, Mobile; HF, DR, Battery-powered	1	●		
B. Equipment, office					
1	Clock, wall-mounted (same specs)	1			●
2	Desk-type computer; with printer, UPS and voltage stabiliser	1	●		
C. Furniture, medical					
1	Examination couch	1	●		
D. Hollowware/containers					
1	Dust bin, pedal, S/S, 5 L	1			●
2	Textile, clothing	1	●		
3	Apron, protective, x-ray, lead	1	●		

Area: Ultrasound Room (for Community Health Centres and Basic Emergency Obstetric and Neonatal Care sites)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Cupboard	1		●	
2	Chair, office	1		●	
3	Desk	1		●	
4	AC, split type, 1.5 kW, 230 V, 50 Hz	1		●	
5	Shelves, customised, wood/aluminium	1		●	
6	Bench, 4 seats, steel, fabricated	1		●	
B. Equipment, medical					
1	Ultrasound machine; ISO13485 certified; 3D, upgradable to 4D, colour doppler, on cart and castor, System Power: 200-240V, AC, 50Hz; with 3 KVA Online UPS, USB Color Laser Printer of reputed brand with built-in image management Software.	1	●		
C. Furniture, medical					
1	Couch, examining; 2-section (knock-down construction): 1800 mm (l) x 750 mm (w) x 760 mm (h). Folding table with top in two sections. Drop leaf section (headpiece) 490 mm (l) x 750 mm	1	●		

	(w). Removable and adjustable by ratchet type frame. Frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with minimum 2 mm thickness. With crossbars for stability. Square section ends to be fitted with rubber or plastic bungs. Sheet metal parts minimum 1.5 mm thickness.				
2	Stool, surgeon, adjustable height	1	●		

Area: Storeroom

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.					
1	Cupboard	1	●		
2	Racks, storage, set	1	●		

Area: Waiting Area; Patients

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.					
1	Bench x 5 seats	2	●		
2	Chair	3	●		
3	Desk	1	●		

**Department: Surgery (for Community Health Centres and Basic Emergency Obstetric and Neonatal Care sites)**

Area: Operating Theatre, Main

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Light, operating, ceiling-mounted, single or 2 dome heads, LED, 160,000 lux; shadow-less; electric; 230 V, 50 Hz	1	●		
2	Light, operating, ceiling-mounted, single dome heads, LED, 160,000 lux; shadow-less; mobile, battery-powered, 12 V DC	1	●		
3	Oxygen Concentrator, 10 LPM, with accessories and spares	2	●		
4	Suction machine; 230 V, 50 Hz, 2-jar, 2,5 L, auto shut-off float valve, mobile on castor wheel	1		●	
5	Suction machine; manual, 1-jar, 2. r L, portable	1		●	
6	Table, operating, universal, 3-sections, hydraulic, mechanical adjust and movement, with washable mattress, 4 inches, straps	1	●		
7	Diathermy machine (ESU); monopolar and bipolar; foot-operated and hand-operated	1	●		
8	Monitor, physiologic, Multi-parameter, Pulse oximeter; BP, temperature and ECG	1	●		
B	Equipment, medical, resuscitation				

1.	Anaesthesia machine; with rotameter/flowmeter for O <sub>2</sub> , NO <sub>2</sub> and air, rebreathing circuit and CO <sub>2</sub> absorber, temperature-controlled vaporiser or draw-over vaporiser or OMV, With oxygen flush at least 50 mL. With pin-index oxygen cylinder connected as a backup supply		●		
2	Cylinder, oxygen with pressure regulator, flow regulator and humidifier	2	●		
3	Oxygen outlets, piped, humidifier and flow regulator	4	●		
4	Instrument sets, anaesthesia, general equipment	1	●		
5	Resuscitator, manual, adult and infant	2		●	
6	Resuscitation table with warmer; 230 V, 50 Hz; temperature setting, skin probe, AGPAR, with work light, on castors with drawers	1		●	
7	Warmer, radiant, infant; 230 V, 50 Hz; manual and servo mode, with a skin probe, alarms and indicators; on castors	1		●	
C. Equipment, refrigeration					
1	Refrigerator for drugs; 12 cu ft, electric, compressor type, 230 V, 50 Hz, inverter technology	1			●
D. Furniture, medical					
1	Cupboard, dangerous drugs, Lockable storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors. The upper section is prepared for tablet and dangerous drugs storage, and the lower for 500ml 5 L stock bottles of medicines.	1		●	
2	Cupboard, instruments	1		●	
3	Drip stand	3		●	
4	Stool, surgeon, adjustable height	2	●		
5	Table, Mayo, adjustable height with a telescopic column from approximately 750-1400 mm. Stainless steel construction. Removable tray approximately 500(l) x 400(w) x 25 (h)mm. With a 5-prong base and 60 mm anti-static castors.				
6	Trolley, instruments	1		●	
7	Trolley, patient, with removable stretcher, trolley frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2mm thickness. Stretcher size approximately 2000 (l) x 650 (w) mm. Height of trolley 800 mm. Frame with chromium-plated or epoxy coating finish, with four free-running, antistatic, swivel castors of 200 mm diameter. Bumpers to all four corners, with drop-down rails, IV pole and oxygen tank holder. With 9° Trendelenburg and 14° reverse Trendelenburg tilting mechanism.	1		●	
E. Hollow ware/container					

1	Hollow ware set, theatre	1	●		
2	Bin, waste	1			●
F. Sundries, medical					
1	Boots, operating, white with a black sole, size 10, 9, 8, 7	2		●	
2	Clogs, theatre, white size, 10, 9, 8, 7	2		●	
G. Equipment, instruments, medical and surgical					
1	Diagnostic equipment set	1	●		
2	Instrument set, anaesthesia, intubation	1	●		
3	Instrument set, anaesthesia, local/regional drug techniques	2	●		
4	Instrument set, anaesthesia, paediatrics, valves and masks	1	●		
5	Instrument set, anaesthesia, Caesarian section	1	●		
6	Instrument set, anaesthesia, dilatation and curettage	1	●		
7	Instrument set, anaesthesia, general surgery, large	1	●		
8	Instrument set, anaesthesia, hernia/hydrocoelelectomy	1	●		
9	Instrument set, anaesthesia, IV cut-down	1	●		
10	Instrument set, anaesthesia, lumbar, fracture, adult	1	●		
11	Instrument set, anaesthesia, stitch removing	1	●		
12	Instrument set, anaesthesia, tracheostomy	1	●		
13	Instrument set, anaesthesia, tubal ligation	1	●		

Area: Changing Room/Locker Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Bench, 4 seats, S/S, fabricated	1		●	
2	Locker, 5 compartments, with lock and key, metal	1		●	

Area: Store; Department of Surgery

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Sundries, domestic					
1	Cleaning utensils; set	1			●

Area: Recovery Room (for Community Health Centres and Basic Emergency Obstetric and Neonatal Care sites)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Suction machine, 2-jar, electric, 230 v, 50 Hz, mobile	1		●	
2	Suction machine, 1-jar, manual, portable	1		●	

3	Sphygmomanometer, aneroid, portable and on castors	2	●		
4	Pulse oximeter; internal, rechargeable; fully charged in 6 hours. Approximately 4-5 hours of continuous use, 3-digit LED (light-emitting diodes) display, Range 0-100% Accuracy: ±2% at 70-100%, ±3% at 50-69% Averaging: 4.8- or 16-pulse beat average. - Pulse rate: Range 30-254 bpm - Accuracy: ±2% at 30-254bpm - Averaging: 8 or 16-second average. LED flashes to alert the operator to check the sensor placement; Operating temperature is 0 to 45°C	2	●		
5	Monitor, physiologic, multi-parameter, 230 V, 50 Hz	2	●		
B. Furniture, medical					
1	Hospital bed, adult, with side rail, measuring 2000 (l) x 900 (w) x 600 (h) mm. With a backrest adjustable up to 30° in 3 steps of approximately 10°. Mesh size and reinforcement of bed to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm. Bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. Square section ends to be fitted with rubber or plastic bungs. The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively. Epoxy finish. Collapsible slide rails with spring hook security system	2	●		
2	Drip stand, double hook	2	●		
C. Furniture, office					
1	Chair, office, stackable	4			●
2	Cupboard	1		●	
3	Desk, wood	1		●	
4	AC, split type, 230 V, 50 Hz, 1.5 kW	1		●	
5	TV, 230 V, 50 Z, flat, LED, 32 inches	1			●

Area: Sluice Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, medical					
1	Trolley, laundry; soiled linen, double bag, tubular or rectangular frame on 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of chromium-plated or stainless steel. Thickness of tubing 2 mm. Provision to hang 2 removable collection bags of 450 mm diameter, Collection bags of linen canvas. With one spare bag. Size: approximately 900 (l) x 450 (w) x 950 (h) mm.	2		●	
B. Hollow ware/containers					
1	Dust bin	1			●
2	Basin, wash, plastic; 40 cm. diameter	1			●

**Department: Ophthalmology/Eye Clinic (for Community Health Centres and Basic Emergency Obstetric and Neonatal Care Sites)**

Area: Examination/Consultation Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Chart, eye, vision testing, Snellen, alphabet/iLate	1	●		
2	Chart, eye, vision testing, Near chart	1	●		
3	Chart, eye, vision testing, Snellen, E chart	1	●		
4	Light, examining	1	●		
5	Sphygmomanometer	1	●		
6	Stethoscope	1	●		
7	Thermometer, clinical, digital	1	●		
8	Tonometer	1	●		
9	Screen, four-fold, on castors	1		●	
10	Weighing scale, adult, physician, with height measurement, metric, 140kgx100g	1		●	
11	Weighing scale, toddler, digital	1		●	
B. Equipment, medical, ophthalmology					
1	Slit lamp	1	●		
2	Magnifying loop	1	●		
3	Trial set with trial frame, small	1	●		
4	Lensometer	1	●		
C. Equipment, medical, Surgical Instruments					
1	Diagnostic equipment set	1	●		
D. Furniture, medical					
1	Examination couch	1		●	
E. Sundries, Miscellaneous					
1	Torch, penlight, with extra bulb	1			●

Area: Treatment Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Chalazion Set	1	●		
2	Instrument set, foreign body removal	1	●		
3	Instrument set, suturing	1	●		
4	Instrument set, Entropion	1	●		
5	Instrument set, Enucleation	1	●		
6	Instrument set, Suture removal set	1	●		

7	Instrument set I &D	1	●		
8	Instrument set, cataract	1	●		
9	Scissors, stitch	1	●		
10	Scissors, curved, small	1	●		
11	Scissors, curved, medium	1	●		
12	Needle holders	1	●		
13	Epilation forceps	1	●		
14	Lid retractors adult	1	●		
15	Lid retractors, children	1	●		
16	Desmarres eyelid retractors, adult, size 3, 5.5"	1	●		
17	Desmarres eyelid retractors, children, size 0, 5.5"	1	●		
18	Forceps, artery curved, small	1	●		
19	Forceps, artery straight, small	1	●		
20	Forceps, dissecting, toothed, small	1	●		
21	Forceps, dissecting, non-toothed	1	●		
22	Knife handle, surgical, Bard-Parker 3	1	●		
23	Knife handle, surgical, Bard-Parker 4	1	●		
24	Cheatle Forceps, 270mm	1	●		
B. Equipment, medical					
1	Trolley, dressing, with shelves, s/s, 600L x 450W x 800H mm	1		●	
2	Wheelchair	1		●	
C. Furniture, medical					
1	Drip stand, double hook, adjustable height, on castors	1		●	
D. Furniture, office					
1	Bin, pedal	1		●	
2	Clock, wall type, digital	1		●	
3	Kettle, boiling, 2 L	1		●	
4	Chair, armchair, office	1		●	
5	Basket, waste, paper	1		●	
6	Bench, wood	1	●		
7	Stool, adjustable with cushion	1	●		
8	Cupboard	1	●		
9	Table, office	1	●		
10	Desk, computer, CPU, keyboard, monitor and printer with AVR				
E. Equipment, glassware					
1	Bottle, eye dropper, glass 60 ml	1	●		
2	Eyeball glass	1	●		
3	Measure medicine glass	1	●		
F. Equipment, sterilisation					
1	Steriliser, autoclave, steam, high-speed, semi-auto, 134 °C	1	●		
G. Hallow ware/containers					
1	Basin, dispensing, s/s 25ml	1	●		
2	Bowl s/s 152mm	1	●		
3	Bowl s/s 255mm	1	●		

4	Gallipot, p/p, 75mm diameter	1	●		
5	Gallipot, s/s, 57ml	1	●		
6	Jug, measuring, various sizes, S/S	1	●		
7	Kidney dish, s/s, 203mm with cover	1	●		
8	Kidney dish, s/s, 152mm, with cover	1	●		
9	Kidney dish, medium with cover	1	●		
10	Measure, medium, p/p 50ml	1	●		
11	Brush, surgeon's, scrub, autoclavable, nylon bristles	1	●		
12	Jar, anaerobic, 2,5 L with baskets	1	●		
13	Instrument trays with covers	1	●		
14	Sponging holding forceps, small	1	●		
15	Urinal male PP (Polypropylene)	1	●		
16	Bedpan S/S	1	●		
17	Mayo tray and stand	1	●		
18	Bowl, kick, s/s, with stand and anti-static castors	1	●		

Area: Waiting Room/Area

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Chair, monoblock, plastic	3		●	

**Department: Administration**

Area: Conference Room/Library

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, Office, Information, teaching aids				
1	Projector, LCD	1			●
2	Sound system, Bluetooth, FM/AM, 500 Watts, 230 V. 50Hz, CD/Video player, USB port	1			●
3	TV/Monitor, 32 in, flat, LED	1			●
4	Screen, projector, roll-up	1			●
5	Whiteboard, 4 x 8 ft	1			●
6	Microphone, table	1			●
7	AC, split type, inverter, 2 KW, 230 V, 50 Hz	1		●	
B.	Furniture, office				
1	Chair, office, armchair	1		●	
2	Chair, basic, metal, stackable	1		●	
3	Cupboard	1		●	
4	Table, conference, wood, customized to the size and shape of the room; 20-25 seater	1		●	



Area: Community Health/Community Health Admin Office

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Cabinet, with lock and keys	1		●	
2	Chair, office, armchair, visitor	1		●	
3	Chair, executive, swivel	1		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	1		●	
6	Shelves, wood, customized	1		●	
7	Basket, waste, paper	1		●	
8	Conference table and chairs, small, 5-6 seater	1		●	
B. Equipment, office					
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1	●		
2	AC, split type, inverter, 2 kW, 230 V, 50 Hz	1	●		
C. Equipment, domestics					
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1			●
2	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1			●

Area: Head Nurse/Sr. Office

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, Office					
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1	●		
2	AC, split type, inverter, 2 kW, 230 V, 50 Hz	1	●		
B. Equipment, domestics					
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1		●	
2	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1			●
C. Furniture, office					
1	Cabinet, with lock and keys	1		●	
2	Chair, office, armchair, visitor	1		●	
3	Chair, executive, swivel	1		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	1		●	
6	Shelves, aluminium, customised	1		●	
7	Basket, waste, paper	1		●	

Area: Workshop; Maintenance Unit/Motor pool (for Community Health Centres and Basic Emergency Obstetric and Neonatal Care Sites)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Tools, carpentry					
1	Tool kit, carpentry	1		●	
B. Tools, electrician					
1	Tool kit, electrician	1		●	
C. Tools, biomedical technician					
1	Tool kit, electronic/biomedical technician	1		●	
D. Tools, mechanic/welder					
1	Tool kit, mechanic	1		●	
E. Tools, plumbing					
1	Tool kit, plumbing	1		●	

**Department: Solid Waste Management/Environmental Health and Sanitation (for Community Health Centres and Basic Emergency Obstetric and Neonatal Care Sites)**

Area: Store

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Shelves, metal/aluminium, customised	1		●	
2	Cupboard	1		●	

Area: Office; Environmental Health Officer

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture and Equipment, Office					
1	Rack, storage, sets	1			
2	Table, metal, 1300 x 700 mm	1		●	
3	Basket, waste, paper	1			●
4	Cupboard	1		●	
5	Chair, basic, metal, visitors	1		●	
6	Desk, metal, 1300 x 700 mm	1		●	
7	Chair, executive, swivel on castors	1		●	
8	AC, 1.5 KW, inverter, split type, 230 V, 50 Hz	1		●	
9	Desktop computer, with UPS and monitor	1		●	

Area: Waste Management Area

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, waste management				
1	Incinerator, Diesel-fired: Refuse Collector, Capacity: 20kg/h incinerator, Fuel: Diesel fuel incinerator, Function: Recycle Metal, Power Supply: 220V/50HZ)	1	●		
2	<b>De Montfort (brick-type)</b> - high-temperature dry oxidation at > 850° C in the primary chamber and 1,100°C in the secondary chamber with a retention time of two seconds to avoid the formation of dioxins and furans	1	●		
3	Bin, waste, with wheel, foot-operated cover	5	●		
4	Gloves, rubberized; pair, heat resistant, elbow length	10	●		
5	Apron, heat resistant, washable, knee-length	5	●		
6	Boots; pair, high-cut gum-like, a mix of rubber and plastic materials, slip-free, waterproof, heat resistant	5	●		
7	Goggle; clear and transparent material, scratch-resistant, to cover the whole face, Velcro fittings	5	●		
8	Shovel, big, metal, rust-free	2	●		
9	Wheel Burrow; metal, rubberized wheel	2	●		
10	Bucket, veronica	1		●	

BASIC ASSUMPTIONS

1. BEmONC will be the base reference for PHC facilities plan development and upgrading
2. Facilities shall be flexible regarding equipment, structure and human resources in consideration of emergencies, epidemics, and other abnormal health calamities wherein unexpected large volumes of patients must be managed.
3. The availability, quantity and priority of some of this equipment can be determined by size, demand, and type of stations. The human resources (the equipment users) also count a lot.

UTILITIES

- A. Powerhouse:
  - 1) 1 x 50 KVA, 400/230 V; 0.8 pf; 50 Hz, 1500 rpm as stand-by/prime source of electric power to the facility
  - 2) 1 x 5 KW Solar PV source as a backup power source, complete with MPPT, inverter, charger, and battery bank for critical equipment.
- B. Elevated water tank; 5,000 L; connected to submersible pump from the water well, borehole, or government water source and with cistern. This elevated water tank supplies water to the facility for good measure by gravity.

## Standard List of Equipment

### Archetypical Secondary Health Care Facility; Regional and District Hospitals

Area: Triage and Infection Prevention and Control

Nr	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Triage				
1	Chair, bench x 5; plastic	3	●		
2	Table, metal, 1300 x 700 mm	1	●		
3	Infrared Thermometer	5	●		
4	Dustbin	2		●	
5	Veronica bucket	2	●		
6	Liquid soap	1			●
7	Bucket stand	2	●		
8	Wastewater Bowl	2			●
9	Pulse oximeter, spot-check, hand-held with RR	5	●		
10	Defibrillator, AED	2	●		
11	Examining lamp, angle-poise	5	●		
12	Resuscitator; manual	10	●		
13	Stethoscope	5	●		
14	Glucometer with microcuvettes	2	●		
15	Sphygmomanometer	3			
16	Clock, wall	1	●		

**Department: Outpatient Department**

Area: First Aid/Emergency

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
<b>A. Equipment, medical</b>					
1	Light, operating, mobile, LED; with rechargeable battery back-up	2	●		
2	Light, operating, ceiling-mounted, LED, single dome head, 230 V, 50 Hz	2	●		
3	Table, operating, universal, mechanical, hydraulic; Mobile operating table with manual operated functions, Five section table top with separate pads of min 50 mm thickness for the head, back, seat and legs, Table top frame and column casting made of stainless CrNi steel, with solid base construction, base cover made of CrNi steel	2	●		
4	Oxygen concentrator; 10 LPM, 230 V, 50 Hz	5	●		
5	Cylinder, oxygen, 40 L, mobile, with pressure regulator, Flow meter, 10 LPM and humidifier bottle	5	●		
6	Oxygen sockets, AFNOR or equivalent, Flow meter, 10 LPM and humidifier bottle	5	●		
7	Sphygmomanometer, aneroid, desk type and on castors	10	●		
	Aneroid				
8	Pulse Oximeter	2	●		
<b>B. Equipment, medical, anaesthesia</b>					
1	Cylinder, oxygen, 40 L, mobile, with pressure regulator, Flow meter, 10 LPM and humidifier bottle	2			
2	Resuscitator, manual, adult and infant, complete with mask	2	●		
3	Anaesthesia Machine; re-breathing system, vaporiser for halothane, and draw-over system	1		●	
<b>C. Equipment, imaging, x-ray</b>					
1	View box, x-ray	1	●		
2	X-ray machine; mobile, DR, battery-powered; 300 mA	1	●		
3	Apron, leaded	2	●		
<b>D. Equipment, medical, sterilization</b>					
1	Sterilizer, high-speed, tabletop, steam, semi-automatic, 230V, 50 Hz, 134 °C, 6-15 ltr	2	●		
2	Autoclave	1	●		
<b>E. Equipment, medical, surgical instruments</b>					
1	Instrument set, dressing	5	●		
2	Instrument set, ENT, casualty	2	●		
3	Instrument set, stitch removing	5	●		

4	Instrument set, suture	5	●		
5	Chest drain set	2	●		
6	Chest tubes Plus Under Water System (SET)	10	●		
F. Equipment, Office					
1	Clock, digital, wall-mount, with day/date, temperature, °C/F and % RH; battery-operated, luminous even at daytime	5		●	
2	Kettle, water, boiling, 2 L, electric	2		●	
G. Furniture, medical					
1	Cupboard, instrument, cabinet, metal frame, double, glass doors. Frame of 3mm mild steel. Sheet metal parts with epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. With 4 adjustable hardened glass shelves of 6 mm thickness. Dustproof. Door handles with security lock and 2 keys. Approximate size 750 (l) x 400 (w) x 1700 (h) mm	1	●		
2	Dripstand, Height adjustable 1200-2200 mm, wide stance base with castors. Double hook rod includes a positive stop to avoid disengagement from the base rod. With metallic adjustable locking device. Epoxy finish, made of chrome-plated metal or stainless steel	5	●		
3	Screen, metal-framed four-sectioned mobile screen on castors. Approximate size 1800 mm height. 4 panels of 500 mm wide. Frame with chrome-plated or epoxy coating finish. Castors 50 mm diameter. Panels to have removable, washable cloth of 35% polyester and 65% cotton	5	●		
4	Bowl, kick, with stand and anti-static castors Material 18/10 S/S. Mounted on 4 castors, diam. 40 mm.	5	●		
5	Stool, surgeon's, adjustable, anti-static cushion S/S; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm. On 5 anti-static swivel castors	2	●		
6	Stretcher, collapsible Foldable emergency stretcher, made in anticorrosive, anodised aluminium with PVC-coated polyester sheet of 1 mm thickness to handle patient weight up to 130 kg. Fire retardant, foldable over width, approximate size (in open position): 2100 (l) x 500 (w) x 140 (h)mm	5	●		
7	Trolley, dressing, with shelves, 600 (l) x 450 (w) x 800 (h) mm tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Complete with: - Stainless steel bottle rack - Rectangular, detachable waste bin attached underneath the top shelf. Capacity of waste bin approximately 4 L - Stainless steel bowl of approximately 320 mm diameter; approximately 4 L	4	●		
8	Wheelchair, adult; 4 wheels (2 rear wheels and 2 front swivel castors, Seat and backrest providing sitting support for the wheelchair user, Foot supports, Armrests, Rear wheel locks (to	5	●		

	park the wheelchair);; Folding frame, Push handles Integrated seat and backrest upholstery, Preset tilt Head support, Wheels and Castors Two (2) larger rear wheels of 12" or greater Single (12" or greater) or dual (7" or greater) front castors COG frame adjustments				
9	Hand washing, bucket with cover and tap, stand and basin, plastic, 4 L	2		●	
H. Furniture, office					
1	Bench, 4 seats, wood, fabricated	6	●		
2	Cupboard, lockable for drugs, storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors. The upper section is prepared for tablet and dangerous drugs storage, and the lower for 500ml 5 L stock bottles of medicines.	1	●		
3	Chair, armchair, with backrest, cushioned, back and seat	5	●		
4	Table, wood with 3 drawers, lockable	5	●		
5	Dust bin with foot pedal	6	●		
6	Hollow ware set	5	●		
7	Tray instrument, set of 3 sizes with cover, S/S	4	●		

Area: Outpatient Department Dispensing

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, Office					
1	Basket, waste, paper	1	●		
2	Cupboard, high, metal with glass and lock and key; Lockable storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors.	1	●		
3	Shelves, wood; customised	5	●		
4	Chair, arm, plastic; monoblock	3	●		
5	Stool, stainless steel, adjustable height	2	●		
6	Desk, wood, 3 side drawers	1	●		
7	Hand washing; water container with a tap, on the stand; 20 L, with basin	1	●		

Area: Outpatient Department, Examination Room (Consultation Room)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY
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			H	M	L
A.	Equipment, medical				
1	Chart, eye, vision testing, Snellen, alphabet/iLLate	4	●		
2	Weighing scale, adult, physician, metric, 140kg x 100g; with height measurement in metric	2	●		
3	Weighing scale, baby, basin type, 10 kg, 10grams scale; digital; battery and power adaptor supply	3	●		
4	Weighing scale, toddler, spring type	3	●		
5	Reflex hammer, rubber, solid	5	●		
6	Suction machine; electric and manual; 1-jar. With accessories and spares	5	●		
7	Proctoscope, adult and child	2	●		
8	Speculum, vaginal, small, medium, large( metal)	3	●		
9	Depressor, tongue, adult/child (set)	4	●		
10	Sphygmomanometer, aneroid type	6	●		
11	Poised lamp, free standing	6	●		
B.	Equipment, Office				
1	Clock, wall, digital, with day/date, temperature, °C/F and % RH; battery-operated, luminous even at daytime	5	●		
C.	Equipment, medical instruments				
1	Diagnostic equipment set	5	●		
2	Tonometer	5		●	
3	Diagnostic set	5	●		
D.	Furniture, Medical				
1	Examination couch, with polyurethane covered-mattress, adjustable; 2 sections (knock-down construction): 1800 mm (l) x 750 mm (w) x 760 mm (h). Folding table with top in two sections. Drop leaf section (headpiece) 490 mm (l) x 750 mm (w). Removable and adjustable by ratchet type frame. Frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2 mm thickness. With crossbars for stability. Square section ends to be fitted with rubber or plastic bungs. Sheet metal parts minimum 1.5 mm thickness.	5	●		
2	Screen, four-fold, on castors; Metal framed four-sectioned mobile screen. Approximate size 1800 mm height. 4 panels of 500 mm wide. Frame with chrome-plated or epoxy coating finish. Castors 50 mm diameter. Panels to have removable, washable cloth of 35% polyester and 65% cotton.	5	●		
3	Hand washing; water container with a tap, on a stand; 20 L, with basin	5	●		
4	Trolley, instruments, with s/s shelves, anti-static castors, 600 x 450 x 850 mm	5	●		
E.	Furniture, Office				
1	Chair, arm, plastic; monoblock	3	●		



2	Cupboard, high, metal with glass and lock and key	1	●		
3	Desk, wood, 3 side drawers	1	●		
4	Filing cabinet, 4 drawers; steel, with lock	1	●		
5	Chair, armchair office, with backrest; adjustable height	1	●		
6	Bench, 4 seats, wood, fabricated				
7	Basket, waste, paper	1		●	
F. Hollow ware/Containers					
1	Dust bin	2	●		
2	Hollow ware, set, consulting room	1	●		
G. Equipment, medical, imaging					
1	View box, x-ray	1	●		
H. Equipment, medical, laboratory					
1	Glucometer	5	●		
2	Hemoglobinometer (301)	5	●		

Area: Outpatient Department treatment/medical observation room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Light, examination, LED, articulated, floor standing on castors, 230 V, 50 Hz	5	●		
2	Suction machine, electric, 2-jar, 1.5 L, 230 V, 50 Hz, mobile	2	●		
3	Suction machine, manual, 1-jar, portable	2	●		
4	Nebulizer, electric, 230 V, 50 Hz	1		●	
5	Sphygmomanometer, aneroid type, tabletop, mobile on castors and wall-mount	6	●		
6	Oxygen concentrator	2	●		
7	Patient Bedside Monitor; multi-parameter	2			
8	Pulse Oximeter	2	●		
B. Equipment, medical, surgical instruments					
-					
1	Instrument set, dressing	2	●		
2	Instrument set, ENT, casualty	2	●		
3	Instrument set, stitch removing	2	●		
4	Instrument set, suture	2	●		
C. Furniture, medical					
1	Cupboard, instrument	1		●	
2	Drip, stand	4		●	
3	Screen, four-fold	4		●	
4	Bowl, stand, kickabout	2			●
5	Stool, surgeon's, adjustable height	2		●	
6	Stretcher, collapsible	4	●		
7	Trolley, dressing	2		●	

E.	Hollow ware/containers				
1	Dust bib, S/S, pedal, 15 L	1			●
2	Tray, instruments, S/S, 3 sets of 3 sizes	2		●	

Area: Outpatient Department, Family Planning (MCH)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical and surgical instruments				
1	Instrument set, insertion/removal, IUCD	5		●	
2	Sphygmomanometer; aneroid type	2	●		
3	Norplant set	50		●	
4	Diagnostic Set ( pregnancy test – box)	50	●		
5	Forceps, sponge, holding	10	●		
6	Gallipots; reusable, polypropylene or S/S; autoclavable up to 135 °C	5	●		
7	Drum, sterilizing, small and medium	5	●		
8	Forceps, curved artery, small	10	●		
9	Forceps, straight, artery, small and large	10	●		
10	Bowl, medium size	5	●		
11	Receiver, medium size	10		●	
12	Tray, S/S	5	●		
13	Forceps, Cheatle, S/S	10	●		
14	Holder, Cheatle; S/S or hard plastic	5	●		
15	Scissors, curved and straight, S/S	10	●		
16	Tubal ligation and vasectomy sets	5	●		
17	Speculum, small; S/S	5	●		
18	Stethoscope, Littman type	5	●		
19	Foetal, monaural	5	●		
20	Pinard, plastic	5		●	
21	Scope, vaginal and foetal	1		●	
22	Tubal ligation and vasectomy sets	1		●	
B.	Equipment; medical				
1	Weighing scale, bathroom type, metric, 125kg x 500g	2	●		
2	Light, examining, floor standing, articulated, LED, 230 V, 50 Hz	5		●	
C.	Furniture, medical				
1	Examination couch, local, with stirrups; steel, with polyurethane covered-mattress, adjustable	2	●		
2	Stool, s/s; adjustable height	2	●		
3	Screen, four-fold, with anti-static castors	2		●	
D.	Furniture, office				
1	Chair, arm, plastic; monoblock	1		●	
2	Desk, wood, with 2 x drawers 1600x750 mm	1		●	
3	Chair, armchair office, with backrest; adjustable height	1		●	
4	Shelves, customised	1		●	

E.	Hollow-ware / containers				
1	Dustbin	1		●	
2	Hollow ware set, laboratory	1		●	
F.	Equipment, glassware				
1	Glassware set, laboratory, EAU	1		●	
G.	Equipment, medical, laboratory				
1	Centrifuge, electric, 4-8 buckets, with graduated tubes	1		●	
2	Centrifuge, manual, 4 buckets, with graduated tubes	1		●	
3	Hemoglobinometer; Hemocue type. +301 with micro cuvettes	1		●	
4	Glucometer, Hemocue type, +201 with microcuvettes	1		●	
5	Rack, staining for 25 slides	2		●	
6	Slide holder, microscope	1		●	
7	Forceps, steel	1		●	
8	Rack, S/S, 12-hole	1		●	
9	Refrigerator, 12 cu. ft	1	●		
H.	Equipment, medical, sterilization				
1	Sterilizing unit, pressure cooker type, steam, double rack, fire-heated	1	●		
I.	Furniture, medical				
1	Hand washing, water container with a tap, on a stand, with basin	1		●	

Area: Outpatient Department Laboratory

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, glassware				
1	Glassware set, laboratory	1		●	
B.	Equipment, medical, laboratory				
1	Centrifuge, manual, 4-bucket, hand-operated with graduated tubes	1		●	
2	Haemoglobinometer, Hemocue+301 type with micro cuvettes	1		●	
3	Timer, interval, digital, battery-operated, 60 min x 1 min, with signal	1		●	
4	Centrifuge, electrical, 4-bucket	1		●	
5	Glucometer; Hemocue +201 type; with microcuvettes	1		●	
6	Rack, staining, microscope slide staining for 25 slides	1		●	
7	Microscope slide holder	1		●	
8	Stainless Steel test-tube Forceps	1		●	
9	Rack, test tube, metal, 12-tube	1		●	
10	Refrigerator; solar; electrical	1		●	
11	Spirit Burner/lamp	1		●	

12	Incubator, 18--20L -65 °C – Bacteria, 120V/50Hz	1		●	
13	CO <sub>2</sub> Incubator 155000 – 2	1		●	
14	Inoculation Loop Wire & Holders 6" & 8"	1		●	
15	Drying Oven, thermostat controlled,	1		●	
16	Adjustable Volume Single channel Pipettes, 1000, 200, 100, 50, 20, 5µl	1		●	
17	Heating Block, magnetic, mixer, 300W, 220V	1		●	
18	Adjustable Multichannel Pipettor 12-Channel 0. 2-10 mL	1		●	
19	Autoclave 25 – 50L	1		●	
20	Bunsen Burner with Gas, Electric	1		●	
21	Weighing Balance, Digital	1		●	
22	Pipette Holder	1		●	
23	Hematology Analyzer 5 Part, DC 220V	1		●	
24	Biochemistry Analyzer Open System	1		●	
		1		●	
D.	Equipment, medical, sterilization				
1	Sterilizing unit, steam, pressure cooker type, double rack, fuel heated	1		●	
E.	Furniture, medical				
1	Water container with tap, on a stand, Capacity of container 20 Litre, with basin	1		●	
F.	Furniture, office				
1	Chair, arm, plastic; monoblock	2		●	
2	Cupboard, high, metal with glass and lock and key	1		●	
3	Shelves, wood; customised	2		●	
4	Desk, wood, with 2 x drawers 1600x750 mm	1		●	
5	Stool, s/s; adjustable height	2		●	
G.	Hollow-ware / containers				
1	Dustbin	1		●	
2	Hollow ware set, laboratory	1		●	

Area: Outpatient Department, Store/ Expanded Program for Immunization

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, refrigeration				
1	Cold box, insulated, vaccine storage, 27 ltr	2	●		
2	Refrigerator, electrical/solar; gas;	1	●		
3	Vaccine carrier; 3 L. 4 icepacks	10	●		
B.	Furniture, office				
1	Cupboard, high, metal with glass and lock and key	1	●		
2	Shelves, wood; customised	2	●		
3	Desk, wood, with 2 x drawers 1600x750 mm	1	●		
4	Chair, arm, plastic; monoblock	3			

C.	Sundries, domestic				
1	Cleaning utensils, set	3	●		
	Sponges and scourers				
	Yellow dusters/microfibre cloths				
	Glass polishing cloths				
	Cleaning brushes				
	Mop and bucket				
	Dustpan and brush				
	Protective gloves				
	Plastic caddy to carry the essentials				

Area: Outpatient Department, Treatment Room (for Comprehensive Emergency Obstetric and Neonatal Care Sites)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, domestic, kitchen				
1	Stove, gas/ electric, 1.2 L; single burner;	1	●		
2	Kettle, boiling, water, 2ltr( electric)	1	●		
B.	Equipment, medical				
1	Oxygen Concentrator; 10 LPM with accessories and spare parts; 230 V, 50 Hz	2	●		
2	Light, examining, floor standing, articulated, LED, 230 V, 50 Hz	1	●		
3	Suction machine, manual; 1-jar with accessories and spares	2	●		
C.	Equipment, medical, sterilization				
1	Sterilizing unit, steam, non-vacuum, vertical, fire-heated, medium, 39 L	2	●		
2	Drum, sterilization, medium	1		●	
3	Drum, sterilization, small	1		●	
D.	Equipment, medical instruments				
1	Diagnostic equipment set	1	●		
2	Instrument set, dental, tooth extraction, basic	2	●		
3	Instrument set, dressing	2	●		
4	Instrument set, foreign body removal	2	●		
5	Instrument set, incision and drainage of abscess	2	●		
6	Instrument set, stitch removing	2		●	
7	Instrument set, suture	5	●		
8	Manual vacuum aspirator (MVA)	1		●	
9	Cheatle forceps in a container	1	●		
E.	Furniture, medical				
1	Drip stand, double hook, adjustable height, on castors	5	●		
2	Screen, four-fold, on castors	5	●		
3	Stand, bowl, kick-about; Made from 18/10 stainless steel. Mounted on 4 casters ý 40 mm.	2		●	

4	Stretcher, collapsible; Foldable emergency stretcher, made in anticorrosive, anodised aluminium with PVC-coated polyester sheet of 1 mm thickness. For the maximum patient weight of 130 kg. Fire retardant, foldable over width, approximate size (in open position): 2100 (l) x 500 (w) x 140 (h)mm	2		●	
5	Water container with tap, on a stand, capacity of container 20 L, with basin	1		●	
6	Trolley, instrument, with shelves, s/s, large, 900 (l) x 600 (w) x 800 (h) mm.600L x 450W x 800H mm; Tubular or rectangular frame with 2 fixed S/S shelves, 150 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Size: approximately 900 (l) x 600 (w) x 800 (h) mm	2		●	
7	Operating table, gynaecological and surgical; mechanical; hydraulic; manual motion; mattress 2 inches; adjustment, length of tabletop: 204 cm, width of tabletop: 52 cm.; Safe Operating Load including mattress and accessories): 180 kg; weight: approximately 150 kg; Patient Straps: 2; Foot and hand control: Activates all motion	1	●		
8	Wheelchair, adult; 4 wheels (2 rear wheels and 2 front swivel castors, Seat and backrest providing sitting support for the wheelchair user, Foot supports, armrests, rear wheel locks (to park the wheelchair),; Folding frame, Push handles Integrated seat and backrest upholstery, preset tilt head support, wheels and Castors two (2) larger rear wheels of 12" or greater Single (12" or greater) or dual (7" or greater) front castors COG frame adjustments	2	●		
F. Furniture, office					
1	Cupboard, high, metal with glass and lock and key	1	●		
2	Stool, s/s; adjustable height	2	●		
G, Hollow-ware/containers					
1	Box, instruments, s/s, w/knobbed cover, 300x200x50 mm	1			●
2	Container, for sharps, for approximately 250 needles	5	●		
3	Dustbin	1		●	
4	Hollow ware, set, treatment room	1		●	
5	Tray, instrument, set of 3 sizes, covered, S/S, 305x254x51mm	1		●	

**Department: Maternity (for Comprehensive Emergency Obstetric and Neonatal Care Sites)**

Area: Ward, Maternity, Nurse Duty Station

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, domestic					
1	Fan; electric, 16 inches blade, 230 V; 50 Hz	2	●		
2	Lamp, table; emergency; LED; rechargeable	2	●		

B.	Equipment, medical instruments				
1	Instrument set, stitch removing	3	●		
C.	Furniture, medical				
1	Cupboard, high, metal with glass and lock and key; dangerous drugs	1	●		
2	Volumetric Pump (infusion Pump); 230V 50 Hz/9-12 V DC; with accessories and supplies	2	●		
3	Hand washing; water container with a tap, on a stand; 20 L, with basin	1	●		
D.	Furniture, office				
1	Dust bin	2	●		
2	Bench, metal, small; 4 seats; fabricated(substitute with plastic chairs)	2	●		
3	Chair, armchair office, with backrest; adjustable height	2	●		
4	Chair, arm, plastic; monoblock	2	●		
5	Desk, wood, with 2 x drawers 1600x750 mm	1	●		
E.	Hollowware/containers				
1	Container, for sharps, for 250 needles/blades approximately, plastic/carton; round or rectangular-shaped opening	4	●		

Area: Sluice Room; Ward, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, medical				
1	Trolley, distribution, laundry, rails & shelves, Tubular or rectangular frame with three fixed S/S shelves, 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1.5 mm thickness. Steel tubing frame with epoxy coating finish, three fixed S/S shelves, swivel castors. Diameter castors 200 mm Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	2	●		
2	Trolley, soiled linen, double bag; Tubular or rectangular frame on 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of chromium-plated or S/S. Thickness of tubing 2 mm. Provision to hang 2 removable collection bags of 450 mm diameter, Collection bags of linen canvas. With one spare bag. Size: approximately 900 (l) x 450 (w) x 950 (h) mm.	2	●		
B.	Hollowware/containers				
1	Dustbin	4	●		
C.	Sundries, domestic				

1.	Cleaning utensils, set	2	●		
	Sponges and scourers	2	●		
	Yellow dusters/microfibre cloths	2	●		
	Glass polishing cloths	2	●		
	Cleaning brushes	2	●		
	Mop and bucket	2	●		
	Dustpan and brush	2	●		
	Protective gloves	2	●		
	Plastic caddy to carry the essentials	2	●		
2	Laundry/linen bag				

Area: Store, Ward, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Shelves, stainless steel; customised	2	●		
2	Ladder, 3-4 steps, aluminium; single	2	●		
3	Racks, storage, set	2		●	

Area: First Stage Labour, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Detector, foetal heart, ultrasonic, portable, Doppler	4	●		
2	Stethoscope, foetal monaural, Pinard, plastic	4	●		
3	Weighing scale, adult, bathroom type, digital, kg/lbs. up to 150 kg/300 lbs, 0.5 kg/1 lbs graduation	2	●		
4	Oxygen Concentrator, 10 LPM	5	●		
5	Cylinder, 40 L, oxygen, complete with regulator, flowmeter and humidifier	2	●		
6	Stool	5	●		
7	Handwashing, bucket, 20 L, with a tap, a stand and basin	2	●		
8	Sphygmomanometer, aneroid, portable and on castor	6	●		
9	Thermometer, digital, non-mercury	5	●		
B.	Equipment, medical, surgical instruments				
1	Diagnostic set	3	●		
C.	Furniture, medical				
1	Drip stand, double hook	4	●		
2	Hospital bed, adult	5	●		
3	Mattress for hospital bed, adult, washable, 4 inches thick, polyurethane material	7	●		



Area: Midwife Office, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, Office				
1	Dustbin with cover	1		●	
2	Chair, office, seat, arm and backrest cushion, on castors	1		●	
3	Chair, stackable, metal, with backrest, and cushion, seat, and backrest	1		●	
4	Cupboard	1		●	
5	Desk, wood, with drawers	1		●	
6	Kettle, boiling, 2 L	1		●	

Area: Delivery Room, Ward, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
B.	Equipment, domestic				
2	Lamp, LED; rechargeable; solar	3	●		
3	AC, split-type; 230V, 50 Hz, 1KW	2	●		
B.	Equipment, domestic, kitchen				
1	Stove, kerosene, 1.2 L; single burner( Electric Stove); wick type, with 3 spares; 4-6 L tank capacity; up to 8 kg weight; adjustable thermostat	2			●
C.	Equipment, domestic, lighting				
1	Light, emergency, solar, rechargeable	2		●	
D.	Equipment, medical				
1	Delivery bed; three-sectioned impervious covered, 100m deep anti-static mattress. Frame made of tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2 mm thickness. Frame to be made of mild steel with an epoxy coating or stainless steel. Square section ends to be fitted with rubber or plastic bungs. Trendelenberg and sitting position achievable. Mattress section to be removable; adjustable bracket to rise to approximately 70°. Accessories include detachable side rails, lock-in lithotomy poles with straps, a deep S/S swab receptacle on a sliding bracket and an IV pole. Approximate size 1900 (l) x 800 (w) x 800 (h) mm,width not < 800 mm	4	●		
2	Weighing scale, baby, basin type, 10 kg, 10 grams scale; digital; battery and power adaptor supply	2	●		
3	Suction machine, manual; 1-jar with accessories and spares	2	●		
4	Suction machine, electric; 2-jar with accessories and spares	2	●		

5	Vacuum extractor; with a case, S/S, Bird's modification of Maelstrom	2	●		
6	Light, operating, mobile, LED, 60-80 K Lux at a distance 1 meter from a light source; luminance field adjustable, 15-25 cm	2	●		
7	Resuscitation Table with warmer; 230 V, 50 Hz	2	●		
8	Detector, foetal heart, ultrasonic, portable, Doppler	4	●		
9	Wheelchair, adult	3	●		
10	Stretcher, collapsible	2	●		
11	Weighing scale for placenta, digital, 0-5 kg, battery operated/power adaptor, 230 V, 50 H/ 9-12 V DC	2	●		
12	Delivery packs/set consisting of 2 small and large kidney dishes each, episiotomy scissors, stitch scissor, 2 cord clamps, dissecting forceps and needle holder	4	●		
13	Obstetric Forceps; Wrigleys and mid-cavity forceps, e.g. Neville Barnes or Anderson's	2	●		
E. Equipment, medical, anaesthesia					
1	Resuscitator, manual (Ambu bag), an infant with masks of various sizes	4	●		
2	Oxygen Concentrator; 230 V, 50 Hz; 2 LPM, with spares and accessories	2	●		
3	Cylinder, 40 L, oxygen, with pressure regulator, flowmeter, 0-10 LPM and humidifier bottle	1	●		
4	Oxygen sockets (central); 4 Bar, with flowmeter 0-10 LPM and humidifier bottle	2	●		
5	Suction machine; 2-jar, 2.5 L, electric, 230 V, 50 Hz, mobile	2	●		
6	Suction machine; 1-jar, 2.5 L, manual, 230 V, portable	2	●		
F. Equipment, medical, sterilization					
1	Sterilizing unit, steam, pressure cooker type, double rack, fire-heated; non-vacuum	1		●	
2	Autoclave, table-top type, steam; semi-auto; high speed; 4-10 minutes; 134 °C max temperature, Class III, timer 0-60 minutes; sterilizing plate 3 pieces; 5L; CE, ISO13485	1	●		
G. Equipment, medical instruments and surgical					
1	Diagnostic equipment set	2	●		
2	Instrument set, delivery and suturing	3	●		
3	Instrument set, episiotomy and tears, extra	3	●		
4	Instrument set, dressing	3	●		
5	Needle holders	10	●		
6	Dissecting forceps	10	●		
7	Cord clamps	10	●		
H. Equipment, office					
1	Clock, wall type, digital, battery-operated, with Temperature C/F, % RH, Alarm, day/date, luminous, even daytime	2		●	
I. Furniture, medical					

1	Cot, baby (bassinet) with mattress with cleanable cover and trolley; plexiglass bed; epoxy-coated steel tube or electrostatic powder-coated metal frame, 4-wheel castor with brakes	4	●		
2	Drip stand, double hook, adjustable height, on castors	4	●		
3	Screen, four-fold, on anti-static castors	4	●		
4	Stool, surgeon's, adjustable height, S/S	2	●		
5	Trolley, instrument, with s/s shelves, anti-static 150 mm swivel castors, Tubular or rectangular frame with two fixed S/S shelves. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	2	●		
6	Water container with tap, on a stand, Capacity of container 20 L, with basin	2		●	
J. Furniture, office					
1	Cupboard, high, metal with glass and lock and key	2	●		
2	Chair, stackable, with backrest, metal frame, cushion seat and backrest	4	●		
K. Hollowware/containers					
1	Container, for sharps, for 250 needles/blades approximately, plastic/carton; round or rectangular-shaped opening	4		●	
2	Dustbin	4			●
3	Hollow ware, set, delivery room	2		●	

Area: Holding Room (Antenatal Room), Wards, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, medical					
1	Bedside locker/table; metal or aluminium, with lock and key drawer; Formica-covered top; open cabinet	5	●		
2	Drip stand, double hook, adjustable height, on anti-static castors	5	●		
3	Hospital bed, adult; 2000 (l) x 900 (w) x 600 (h) mm. With an adjustable backrest up to 30° in 3 steps of approximately 10°, Mesh size and bed reinforcement be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm. Bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. Square section ends to be fitted with rubber or plastic bungs. The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively. Epoxy finish. Collapsible slide rail with spring hook security system; with washable covered- mattress; 4-inch thick	5	●		
B. Hollowware/containers					

1	Dustbin	4	●		
2	Hollow ware set for duty station	2		●	
C.	Textile, domestic				
1	Bed net, mosquito, single bed; white polyester material; 65% cotton	10	●		

Area: Manual Vacuum Aspirator Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, medical				
1	Lamp/light, angle poised	2	●		
2	Trolley, instruments	2	●		
3	Trolley, medicine/drugs; Tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm. With push handle and lockable drawer fixed underneath the top shelf. Size of drawer approximately 250 (w) x 250 (h) x 450 (d). mm. All S/S sheet metal of 1,5 mm thickness.	1	●		
4	Stool, surgeon's, adjustable height	2	●		
5	Examining couch, with stirrups; 2 section (knock-down construction): 1800 mm (l) x 750 mm (w) x 760 mm (h). Folding table with top in two sections. Drop leaf section (headpiece) 490 mm (l) x 750 mm (w). Removable and adjustable by ratchet type frame. Frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2 mm thickness. With crossbars for stability. Square section ends to be fitted with rubber or plastic bungs. Sheet metal parts minimum 1.5 mm thickness.	1	●		
6	Bin, pedal	2			●
7	Cupboard	2		●	
8	Sphygmomanometer, aneroid, portable and mobile on castors	2	●		
9	Thermometer, digital, clinical	2	●		
10	Drip stand, double hook	2	●		
11	Infusion pumps	1		●	
12	Suction machine, electric and manual	2		●	
B.	Equipment, medical instruments				
1	MVA sets	3	●		
C	Hollow ware/containers				
1	Instrument tray	2	●		
2	Instrument sets	2	●		
	Large kidney dish	4	●		

	Vaginal speculum;	6	●		
	Bilabial (Cuscus) and Sims	6	●		
	Auvard speculum	1		●	
	Galipot	4	●		
	Vulsellum forceps	4	●		
	Cheatles forceps	2	●		
	Forceps holder	2	●		

Area: Wards, Maternity

Nr	ITEM/DESCRIPTION	QT Y	PRIORITY		
			H	M	L
<b>A. Furniture, medical</b>					
1	Bedside locker/table; Stainless steel or aluminium, with lock and key drawer; Formica-covered top; open cabinet	30	●		
2	Drip stand, double hook, adjustable height, anti-static castors; Height adjustable 1200-2200 mm, wide stance base with castors. Double hook and rod made of chrome-plated metal or stainless steel. Double hook rod includes a positive stop to avoid disengagement from the base rod. With metallic adjustable locking device. Epoxy finish.	20	●		
3	Hospital bed, adult (same specs)	30	●		
4	Screen, four-fold, on castors	10		●	
5	Water container with tap, on a stand, capacity of container 20 L, with basin	2		●	
6.	Oxygen Concentrator, 10 LPM with accessories and spares	4	●		
7	Cylinder, 40 L, oxygen, complete with a regulator, flow meter (10 LPM) and humidifier	4		●	
8	Oxygen sockets, with flow meter (10 LPM) and humidifier; per bed	1		●	
<b>B. Furniture, office</b>					
1	Chair, stackable, with backrest, metal frame, cushion seat and backrest	1	●		
		1	●		
<b>C. Hollowware/containers</b>					
1	Basin, wash, plastic, 400 mm diameter	1	●		
2	Dustbin	4	●		
<b>D. Textile, domestic</b>					
1	Bed net, mosquito, single bed; white; polyester materials, 65% cotton; per bed		●		

Area: Special Baby Care Unit; Inborn and Outborn Units

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Infant incubators	4	●		
2	Radiant warmer with Resuscitation Table	4	●		
3	Infant Radiant warmer	4	●		
4	Pulse oximeter, portable, w/access	6	●		
5	Phototherapy lamp with stand	4	●		
6	Syringe pump, with accessories	2	●		
7	Oxygen Concentrators with flow splitter	6	●		
8	Pump, suction, surgical, 1 bottle, w/access	2	●		
9	Scale, baby, electronic, 10kg, min grad 5g	2	●		
10	Infusion pumps	6	●		
11	B-CPAP	2	●		
12	Resuscitator (Ambu-bag); manual	4	●		
13	Patient Monitor; Multi parameter with sensors/probes	4	●		
14	Thermometer, clinical, digital	4	●		
15	Pump, breast, manual, w/access	6	●		
16	Oxygen sockets, with flow meter (10 LPM) and humidifier	10	●		
B. Furniture, medical					
1	Cot, baby, hospital, w/bassinet, on castors	8		●	
2	Cupboard, Cabinet, instruments, double door	2		●	
3	Cupboard, Cabinet, medicine, double door	2		●	
C. Equipment, medical, laboratory					
1	Glucometer, Hemocue 201 and Microcuvette, 201+/BOX-100 (glucose strip)	2	●		
2	Hemoglobinometer, HemoCue Hb 301+/SET with micro cuvettes	2	●		
D. Equipment, office					
1	Stand Fan electrical, 16 inches blade, 230 V, 50 Hz	4	●		
2	Wall clock with room thermometer, %RH, day/date (digital)	2	●		
3	Extension cables, 13 A, 5 sockets	4	●		
4	Voltage regulator; 195-250 V/230 V, 5 KW	6	●		
5	Laptop, ThinkPad, T460s (UNICEF IMAGE is not required)	1	●		
6	AC; Split type; 2 KW, 230 V, 50 Hz, Inverter	2	●		
E. Equipment, medical, sterilization					
1	Sterilizer (Autoclave); cooker type, with burner,	1	●		

Area: Sluice Room, ward

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Racks, storage, metal, set	2		●	
2	Shelves, wood, customized, fabricated	2		●	
3	Bin, auto, with wheels	2			●
4	Trolley, laundry with rails and shelves; Tubular or rectangular frame with three fixed S/S shelves, 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of S/S. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Steel tubing frame with epoxy coating finish, three fixed S/S shelves, swivel castors. Diameter castors 200 mm Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	4		●	

**Area:** Ward, Regular/Standard; for Female and Male and Paediatrics

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Suction machine, electric and manual	2	●		
2	Resuscitator, manual	6	●		
3	Nebulizer; 230 V, 50 Hz, Ultrasonic frequency: at least 1.7 MHz + 10%, Mist particle: approximately 1- 5 microns, Nebulizing volume: approximately 1-5 ml/min + 10%, Bacteria filter: filtered down to 0.3-micron bacteria, Water level alarm: automatically nebulization stop and warning light in case of water level decreasing in the reservoir, Floor stand or with stand: stainless steel or PVC powder-coated, 5-wheels roller-stand, Power supply: 220 - 240 V + 10%, 50 Hz	3	●		
4	Oxygen Concentrator; 10 LPM, complete with accessories and spares	10	●		
5	Cylinder, 40 L, oxygen, complete with the regulator, flowmeter, 10 LPM and humidifier	2	●		
6	Infusion pumps; 230 V/power adaptors 9-12 V DC	4	●		
7	Light, examination, LED, 230 V, 50 Hz	2	●		
8	Handwashing, with stand, bucket 20 L with tap and basin	6			●
B. Equipment, medical, sterilization					
1	Sterilizer, steam, high-speed, tabletop, semi-automatic, 6-15 L, 230 V, 50 Hz	2	●		
C. Equipment, medical, surgical instruments					
1	Diagnostic equipment set	2	●		
2	Instrument set, dressing	2	●		

3	Instrument set, IV cut-down	2	●		
4	Instrument set, stitch removing	2	●		
5	Instrument set, suture	2	●		
D. Furniture, medical					
1	Bedside table, drawer, cabinet with lock and key; per bed	30	●		
2	Drip stand, double hook, per bed	10	●		
3	Hospital bed, adult; two sections, measuring 2000 (l) x 900 (w) x 600 (h) mm. With a backrest adjustable up to 30° in 3 steps of approximately 10°. Mesh size and reinforcement of bed to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm. The bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. Square section ends to be fitted with rubber or plastic bungs. The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively—epoxy finish.	30	●		
4	Hospital bed, child, with sliding side rails, measuring 650 (w) x 1400 (l) mm; 1000 mm high. With removable and adjustable (5-90°) backrest/board, footboard, and steel tubing vertically adjustable/sliding side rails with safety lock. Steel tubing frame, mattress support made of weld mesh, with one intermediate tubing support, suitable to fit up to 150 mm thick mattress. Epoxy coating or Chrome plated steel finished	30	●		
5	Cradle, bumpers for paediatrics ward	30	●		
6	Mattress for a hospital bed for adults; length and width to match the bed size of the hospital bed for adults. Thickness 12,5cm Mattress should have a waterproof, urine-proof cover—high-density foam filling; minimum density of 30kg/m3.	30	●		
7	Mattress for a hospital bed for children; Length and width to match the bed size of the hospital bed for children. Thickness 125 mm Mattress should have a waterproof, urine-proof cover. High-density foam filling; minimum density of 30kg/m3.	30	●		
8	Screen, four-fold, on castors	15		●	
9	Bowl, stand, kick about, S/S	10		●	
10	Trolley, dressing; tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm.	5	●		
11	Wheelchair, adult	10		●	
12	Stretcher, collapsible	4		●	
D. Equipment, Domestic, kitchen					
1	Kettle, water boiling, 2 L	2		●	
2	Basin, plastic	5		●	
E. Furniture, medical					
1	Cupboard, instruments	1	●		



2	Cupboard drug/medicines	2			
F	Equipment, domestic				
1	Fan, Electric, stand, 16 inches blade, 230 V, 50 Hz	2		●	
2	Light, emergency, LED, rechargeable	2		●	

Area: Intensive Care Unit/ Isolation Ward

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Suction machine, electric and manual	5	●		
2	Resuscitator, manual	4	●		
3	Nebulizer; 230 V, 50 Hz	3		●	
4	Oxygen Concentrator; 10 LPM, complete with accessories and spares	5	●		
5	Cylinder, 40 L, oxygen, complete with a regulator, flowmeter, 10 LPM and humidifier	2		●	
5a	Oxygen, medical, piped, sockets with flow meter, 10 LPM and humidifier (manifold or direct from oxygen plant)			●	
6	Infusion pumps; 230 V/power adaptors 9-12 V DC	3	●		
7	Light, examination, LED, 230 V, 50 Hz	2	●		
8	Hand washing, with stand, bucket 20 L with tap and basin	4	●		
9	Ventilator, mechanical/electronic, SIMV, pressure, volume and time-cycled; adult/pediatric, in castors/mobile, built-in compressors, Breathing frequency: 5 - 40 times/min, Trigger sensitivity: -0.5 - 5 cm H <sub>2</sub> O, PEEP/CPAP: 0 - 20 cm H <sub>2</sub> O, I/E ratio: 1/3 - 3/1; Ventilators status displayed: pressure, breathing timing, volume, PEEP, trigger sensitivity, alarm setting, respiratory rate, tidal volume, % oxygen, peak flow, battery level and others, Power supply: 220 - 240 V + 10%, 50 Hz	3	●		
10	Monitor, multi-parameter, physiologic; Bedside monitor 3-lead ECG, Resp, IBP, NIBP, SpO <sub>2</sub> , Temp, EtCO <sub>2</sub> ; high-resolution colour display with a screen size of at least 12" diagonal, 24 Hours of trend data in one-minute resolution for all monitored parameters to be displayed graphically or in tabular form, Audible and Visual alarms shall be available for all parameters monitored, and the upper and lower limits shall be user-adjustable, Monitor shall have battery operation of at least 1 hour,	2	●		
11	ECG; 3-6 channel, 12 leads; standard; Sensitivity: 10 and 20 mm/mV, Record format: 3 channels auto, manual, Record device: thermal array printer, Paper speed: approximately 25 and 50mm/s, Power supply: 220 - 240 V + 10%/ 50 Hz and battery 12V, internal charger unit, Display: large-sized LCD,	2	●		
12	Defibrillator, synchronized ECG; ECG cable: 5 leads, Output energy: approximately. 2 - 360 joules, Charging switch: on paddles or keyboard, Charging time: < 10 s at 360 J, Charging	2	●		

	indication: acoustical and optical, Output waveform: single-phase pulse, Monitor: ECG waveform, SpO2, NIPPB, Temperature, LCD screen, Speed: 25 and 50 mm/sec or similar, Recorder: paper speed: approximately 25 mm/s, Power supply: 220 - 240 V + 10%, 50 Hz, Internal rechargeable battery: operating time:> 4 hours under nominal conditions				
13	Capnograph	1	●		
14	ABG Analyzer	1	●		
B. Equipment, medical, sterilization					
1	Sterilizer, steam, high-speed, tabletop, semi-automatic, 6-15 L, 230 V, 50 Hz	1	●		
C. Equipment, medical, surgical instruments					
1	Diagnostic equipment set	1	●		
2	Instrument set, dressing	1	●		
3	Instrument set, IV cut-down	1	●		
4	Instrument set, stitch removing	1	●		
5	Instrument set, suture	1	●		
D. Furniture, medical					
1	Bedside table, drawer, cabinet with lock and key, per bed	5	●		
2	Drip stand, double hook	5	●		
3	Hospital bed, adult; two sections, measuring 2000 (l) x 900 (w) x 600 (h) mm. With a backrest adjustable up to 30° in 3 steps of approximately 10°. Mesh size and reinforcement of bed to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm. The bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. Square section ends to be fitted with rubber or plastic bungs. The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively—epoxy finish.	5	●		
4	Hospital bed, child, with sliding side rails, measuring 650 (w) x 1400 (l) mm; 1000 mm high. With removable and adjustable (5-90°) backrest/board, footboard, and steel tubing vertically adjustable/sliding side rails with safety lock. Steel tubing frame, mattress support made of weld mesh, with one intermediate tubing support, suitable to fit up to 150 mm thick mattress. Epoxy coating or Chrome plated steel finish	5	●		
5	Mattress for hospital bed adult; Length and width to match the bed size of a hospital bed, adult. Thickness 12,5cm Mattress should have a waterproof, urine-proof cover, high-density foam filling, and a minimum density of 30kg/m3.	5	●		
6	Mattress for hospital bed, child; length and width to match the bed size of the hospital bed, child. Thickness 125 mm Mattress should have a waterproof, urine-proof cover. High-density foam filling; minimum density of 30kg/m3.	5	●		
7	Screen, four-fold, on castors	2		●	

8	Bowl, stand, kick about, S/S	2		●	
9	Trolley, dressing; tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm.	2		●	
10	Wheelchair, adult	2			
11	Stretcher, collapsible	2		●	
12	X-ray, DR, mobile, battery-operated	1	●		
D. Equipment, domestic, kitchen					
1	Kettle, water boiling, 2 L	1		●	
2	Basin, plastic	1		●	
E. Furniture, medical					
1	Cupboard, instruments	1		●	
2	Cupboard drug/medicines	1		●	
F. Equipment, domestic					
1	Fan, Electric, stand, 16 inches blade, 230 V, 50 Hz	2		●	
2	Light, emergency, LED, rechargeable	2		●	

**Department: Laboratory**

Area: Counter/Reception

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Basket, waste, paper	2		●	
2	Stool, with backrest; wood, seat and backrest with cushion; with footrest; Stainless steel; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm. On 5 anti-static swivel castors	2		●	
3	Bin waste; for non-biodegradable	2		●	

Area: Main Laboratory

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, domestic					
1	Thermometer; wall mounted, digital; room temperature; °C/°F; battery operated; day/date, % RH	1		●	
B. Equipment, domestic, kitchen					

1	Hot plate; heating plate size: 250 x 300mm; mild steel sheet powder coated body, heating element placed underneath, insulated; up to 150 °C, power regulator controller	1		●	
C. Equipment, glassware					
1	Glassware/plasticware, set, laboratory	1	●		
2	Level Pipetter, volumetric, graduated (2, 10, 20ul)	2	●		
3	Hot air, electric oven, 40 L (glass drying cabinet)	1	●		
4	Sphygmomanometer; digital	1		●	
5	Stethoscope	1		●	
6	Measuring cylinder 100,200,500 and 1000 ml	1		●	
7	Conical flasks 100,200 ml	1		●	
8	Petri dishes ( in carton)	5		●	
9	Reaction tubes for biochemical analysis in boxes	5		●	
10	Media preparation bottles	10		●	
11	Reaction tubes for clotting time analysis inbox	5		●	
12	Plastic loops	5		●	
13	Gauze, cotton wool, tissue	5		●	
D. Equipment, medical, laboratory					
1	Balance, laboratory, single pan, 2500 g / 0.1 g	2		●	
2	Balance, laboratory, single pan, precision, 300g/0.01g	2		●	
3	Burner, Bunsen	2	●		
4	Centrifuge, bench type, electric, 12-placer; 230 V, 50Hz	2	●		
5	Centrifuge, haematocrit, electric, with the reader	2			
6	Colourimeter, with concentration reading	2	●		
7	Counter, differential, mechanical, 8-keys	2	●		
8	Counting chamber, Fuchs-Rosenthal ruling	2	●		
9	Counting chamber, Neubauer ruling, improved	2	●		
10	Distilling unit, electric, 4 L/h	2	●		
11	ESR apparatus, Westergren, stand & pipettes	2	●		
12	Haemoglobinometer, Hemocue +301 type; with micro cuvettes	2	●		
13	Microscope, laboratory, binocular, moving mechanical stage,objectives: 10x, 40x, 100x; ocular: 10x; electric	2	●		
14	Pipette, volumetric, micro, set	2	●		
15	Shaker, VDRL, rotator variable, electric, VDRL tests	2	●		
16	Tally counter	2	●		
17	Timer, interval, digital, 60 minx1min, with signal,spring-wound	2	●		
18	Urinometer, specific gravity, with test glass	3	●		
19	Water bath, with thermostat, 10 L	1	●		
20	Haematology analyzer 12 parameters; with printer and keyboard	2	●		

21	Microscope, binocular, fluorescence CD4 Counter	2	●		
22	Viral load equipment	2	●		
23	Biosafety cabinet, class 1	2	●		
24	Incubator 40 ltr, temperature range 10-100c	2	●		
25	Mixer, vortex, mechanical; 0-3,000 rpm; continuous or touch operating modes; 230 V, 50 Hz	2	●		
26	Mixer, blood sample	2	●		
27	Glucometer; Hemocue type +201 with microcuvette	2	●		
28	Slide Filling cabinet	1			●
29	Slide drying Bench, electric; 230 V, 50 Hz	2	●		
30	Stirrer, magnetic, with a hot plate	2		●	
31	Analyser, blood (FBC Machine)	2	●		
32	Analyser, chemistry	2	●		
33	Balance, digital 0.2-600g	2	●		
34	Water bath; 10 L, 50 °C maximum temperature range, mechanical controller	1	●		
E. Equipment, medical, sterilization					
1	Sterilizing unit, dry heat, medium, 20 L	2	●		
2	Sterilizing unit, steam, non-vacuum, vertical, electric, medium, 39 L	2	●		
3	Instrument set, laboratory, basic	1	●		
F. Equipment, medical instruments					
1	Instrument set, laboratory, basic	1	●		
G. Equipment, office					
1	Clock, wall type, digital, battery-operated, with Temperature C/F, % RH, Alarm, day/date, luminous, even daytime	1			●
2	Desktop Computer set with printer; Uninterrupted power supply; Automatic voltage regulator	1		●	
3	Desk calculator	1		●	
H. Equipment, refrigeration					
1	Refrigerator, electrical, compressor type, 220 L	1	●		
2	Refrigerator-freezer, electric/gas, absorption-cycle, 230ltr	1	●		
3	Thermometer, fridge-freezing equipment	1	●		
I. Furniture, medical					
1	Water container with a tap, capacity of container 10-25L, with basin	1		●	
J. Furniture, office					

1	Basket, waste, paper	1		●	
2	Bench, wood, 4 seats, fabricated	-			
3	Chair, stackable, with backrest, metal frame, cushion seat and backrest	3	●		
4	Cupboard; lockable storage. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors.	1	●		
5	Stool; Stainless steel; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm, on 5 anti-static swivel castors.	1	●		
6	Office Desk; wood, with 2 x drawers 1600x750 mm; lockable	1	●		
7	Computer Desk; wood; with 2 x drawers, 1600 x 750 mm; lockable	1	●		
8	Filing cabinet, metal, 4 drawers; lockable	1	●		
K. Hollowware/containers					
1	Hollowware set, laboratory	1	●		
L. Tools, Miscellaneous					
1	Stroboscope, handheld	1			●

Area: Store, Laboratory

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Racks, storage, set; shelves, metal, angular-shaped bars with holes; adjustable shelves height	1	●		

Area: Blood Bank

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, refrigeration and medical					
1	Blood bank refrigerator with 24-hr recorder; thermostat control - 2 °C to 6 °C; audio and visual temperature failure setting alarm; 230 V, 50 Hz, with AVR 169-250 V range, 1000 W, lockable; transparent door, with shelves and analogue thermometer reader, 12-16 cu. ft	2	●		
2	Water bath; 230 V, 50 Hz with AVR 500 W;	2	●		
3	Serology centrifuge; 230 V, 50 Hz, with AVR 500 W; 24-placer	2	●		

4	Deep Freezer; chest type, 2-door, transparent; lockable; 230 V, 50 Hz, with AVR 169-250 V range, 1000 W	1	●		
5	Cold chain boxes; 100 mm thick;6-15 L capacity; CFC-free polyurethane insulation material, LLDPE material, with locks and ice packs, 0.4 L, HDPE material	5	●		
6	Thermometer, dial type, analogue, 2-3 diameter	2	●		
7	Binocular microscope, laboratory; 230 V, 50 Hz, with 4 objectives oil-immersed, 4x, 10x, 40x 100; mechanical stage, fine/course adjustment	2	●		
8	Racks, test tube holder, S/S with handle, 10 holes	2	●		
9	Test tubes, EU standards or equivalent	20	●		
B. Equipment, medical					
1	Weighing scale, adult, bathroom type, mechanical or digital, settable to Kg and Lbs.; 0-150 kgs; 0.5 kg/1 lbs. scale	2	●		
2	Blood grouping tiles	5			
3	Blood weighing scales	2	●		
C. Furniture, Office					
1	Donor bleeding couch	2	●		
2	Chair	2	●		
3	Table	1	●		

Area: Treatment Room, Dental Department

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Light, examining, articulated, LED, floor standing on castor	3	●		
2	Suction machine, portable, 1-jar, electric, 230 V, 50 Hz, with vacuum pressure adjustment, complete with accessories and spares	2	●		
3	Sphygmomanometer, aneroid type, floor standing on castor	2	●		
B. Equipment, medical, anaesthesia and imaging x-ray					
1	Gags, mouth	2	●		
2	Panoramic, wall-mounted	1	●		
3	Film processor, tabletop, manual	1	●		
4	Film viewer	2	●		
5	View box	-			
6	X-ray hangers	2		●	
C. Equipment, medical, dental					
1	Dental chair, hydraulic, mechanical/electric	2	●		

2	Dental Unit; complete with cuspidor, air compressor, LED operating view light, air turbine and handpieces, suction unit and table mayo	1	●		
3	Amalgamator	2	●		
4	Ultrasonic scaler	2	●		
5	UV light, composite curing machine	2	●		
D. Equipment, medical, sterilization					
1	Sterilizing Unit, steam, non-vacuum, vertical, electric, medium, 39 L	1	●		
E. Equipment, medical, surgical instruments					
1	Instrument set, dental, hand	2	●		
2	ART instrument set (Atraumatic Restorative Treatment)	2	●		
3	Scissors, Mayo	10	●		
4	Forceps, wire	10	●		
5	Forceps, tissue holder	10	●		
6	Scalpel blades	20	●		
F. Furniture, medical					
1	Cupboard, instruments; Lockable storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard is to be in two separate sections, divided horizontally, each section with two doors.	2	●		
2	Stool, surgeon; Stainless steel; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm. On 5 anti-static swivel castors	2	●		
3	Trolley, instruments; Tubular or rectangular frame with two fixed S/S shelves, 150 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	2	●		
4	Desk	2	●		
5	Chair, stackable	2	●		
6	Trolley, laundry; Tubular or rectangular frame on 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of chromium-plated or stainless steel. Thickness of tubing 2 mm. Provision to hang 2 removable collection bags of 450 mm diameter, Collection bags of linen canvas. With one spare bag. Size: approximately 900 (l) x 450 (w) x 950 (h) mm	2	●		
7	Trolley, dressing; Tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm. With push handle. All S/S sheet metal of 1,5 mm	2	●		



	thickness. Complete with S/S bottle rack - rectangular, detachable waste bin attached underneath the top shelf. Capacity of waste bin approximately 4 L; S/S bowl of approximately. 320 mm diameter; capacity of approximately 4 L				
8	Cabinet, instrument	1	●		
G. Furniture, Office					
1	Chair	4	●		
2	Desk	2	●		
3	Cupboard	1	●		
4	Dust bin	4			●
5	Hollow ware instrument	1		●	
6	Tray, instrument set of 3 sets cover, S/S, 305 x 254 x 51 mm	2	●		

**Department: Radiology**

Area: X-ray Reception

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Bench SS material 316	5	●		
2	Chair	2		●	
3	Desk	1		●	
4	Cabinet, filing	1	●		
5	Basket, waste, paper	2			●
6	Cupboard	1	●		
7	Stool	2		●	

Area: X-ray Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical, imaging x-ray					
1	Light, examination, table model, articulated	2	●		
2	X-ray unit, Mobile; HF, DR, Battery-powered	1	●		
3	X-ray Lead shields (in-built or mobile)	1	●		
B. Equipment, office					
1	Clock, wall-mounted (same specs)	1			●
2	Desk-type computer; with printer, UPS and voltage stabilizer	1		●	
C. Furniture, medical					
1	Examination couch	1	●		
2	Chair	2	●		
D. Hollowware/containers					

1	Dustbin, pedal, S/S, 5 L	1	●		
2	Textile, clothing	1	●		
3	Apron, protective, x-ray, lead	1		●	

Area: Ultrasound Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Cupboard	1	●		
2	Chair, office	2	●		
3	Desk	1	●		
4	AC, split type, 1.5 kW, 230 V, 50 Hz	1	●		
5	Shelves, customized, wood	1	●		
6	Bench, 4 seats, wood, fabricated	1	●		
B. Equipment, medical					
1	Ultrasound machine; ISO13485 certified; 3D, upgradable to 4D, colour doppler, on cart and castor, system Power: 200-240V, AC, 50Hz; with 3 KVA Online UPS, USB Color Laser Printer of reputed brand with built-in image management Software.	1	●		
C. Furniture, medical					
1	Couch, examining; 2-section (knock-down construction): 1800 mm (l) x 750 mm (w) x 760 mm (h). Folding table with top in two sections. Drop leaf section (headpiece) 490 mm (l) x 750 mm (w). Removable and adjustable by ratchet type frame. Frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with minimum 2 mm thickness. With crossbars for stability. Square section ends to be fitted with rubber or plastic bungs. Sheet metal parts minimum 1.5 mm thickness.	1	●		
2	Stool, surgeon, adjustable height	1		●	

Area: Storeroom

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Cupboard	1		●	
2	Racks, storage, set	1			●

Area: Waiting Area; Patients

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Bench	5		●	
2	Chair	1		●	
3	Desk	1		●	

**Department: Surgery**

Area: Operating Theatre, Main

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Light, operating, ceiling-mounted, single or 2 dome heads, LED, 160,000 lux; shadow-less; electric; 230 V, 50 Hz	2	●		
2	Light, operating, ceiling-mounted, single dome heads, LED, 160,000 lux; shadow-less; mobile, battery-powered, 12 V DC	2	●		
3	Oxygen Concentrator, 10 LPM, with accessories and spares	2	●		
4	Suction machine; 230 V, 50 Hz, 2-jar, 2,5 litre, auto shut-off float valve, mobile on castor wheel	2		●	
5	Suction machine; manual, 1-jar, 2. r litre, portable	2	●		
6	Table, operating, universal, 3-sections, hydraulic, mechanical adjust and movement, with washable mattress, 4 inches, straps	2	●		
7	Diathermy machine (ESU); monopolar and bipolar; foot-operated and hand-operated	2	●		
8	Monitor, physiologic, Multi-parameter, Pulse oximeter; BP, temperature and ECG	2	●		
B.	Equipment, medical, anaesthesia				
1.	Anaesthesia machine; rotameter/flowmeter for O <sub>2</sub> , NO <sub>2</sub> and air, rebreathing circuit and CO <sub>2</sub> absorber, temperature-controlled vaporizer or draw-over vaporizer or OMV, or TEC-7 equivalent, isoflurane and sevoflurane, and tray-mounted for equipment and instrumentation; US FDA approved or European CE mark. On a powder-coated trolley on castor, with drawers, safety features and a mechanism for accidental oxygen supply deficiency with alarm. With oxygen, flush at least 50 mL. With pin-index oxygen cylinder connected as a backup supply	2	●		
2	Cylinder, oxygen with pressure regulator, flow regulator and humidifier	3		●	
3	Oxygen, sockets, piped, humidifier and flow regulator	1		●	
4	Instrument sets, anaesthesia, general surgery	4	●		
5	Resuscitator, manual, adult and infant	2	●		

6	Resuscitation table with warmer; 230 V, 50 Hz; temperature setting, skin probe, AGPAR, with work light, on castors with drawers	1	●		
7	Warmer, radiant, infant; 230 V, 50 Hz; manual and servo mode, with a skin probe, alarms and indicators; on castors	1	●		
C. Equipment, refrigeration					
1	Refrigerator for drugs; 12 cu ft, electric, compressor type, 230 V, 50 Hz, inverter technology	1	●		
D. Furniture, medical					
1	Cupboard, dangerous drugs, Lockable storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors. The upper section is prepared for tablet and dangerous drugs storage, and the lower for 500ml 5 L stock bottles of medicines.	1		●	
2	Cupboard, instruments	1		●	
3	Drip stand	5	●		
4	Stool, surgeon, adjustable height	2	●		
5	Table, Mayo, adjustable height with a telescopic column from approximately 750-1400 mm. Stainless steel construction. Removable tray approximately 500(l) x 400(w) x 25 (h)mm. With a 5-prong base and 60 mm anti-static castors.	2		●	
6	Trolley, instruments	5		●	
7	Trolley, patient, with removable stretcher, trolley frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2mm thickness. Stretcher size approximately 2000 (l) x 650 (w) mm. Height of trolley 800 mm. Frame with chromium-plated or epoxy coating finish, with four free-running, antistatic, swivel castors of 200 mm diameter. Bumpers to all four corners, with drop-down rails, IV pole and oxygen tank holder. With 9° Trendelenburg and 14° reverse Trendelenburg tilting mechanism.	2		●	
E. Hollow ware/containers					
1	Hollow ware set, theatre	2		●	
2	Bin, waste	4			●
F. Sundries, medical					
1	Boots, operating, white with a black sole, size 10, 9, 8 and 7	10	●		
2	Clogs, theatre, white sizes 10, 9, 8 and 7	10	●		
G. Equipment, medical, surgical instruments					
1	Diagnostic equipment set	2	●		
2	Instrument set, anaesthesia, intubation	4	●		
3	Instrument set, anaesthesia, local/regional drug techniques	4	●		

4	Instrument set, anaesthesia, paediatrics, valves and masks	2	●		
5	Instrument set, anaesthesia, Caesarian section	5	●		
6	Instrument set, anaesthesia, dilatation and curettage	2	●		
7	Instrument set, anaesthesia, general surgery, large	4	●		
8	Instrument set, anaesthesia, hernia/hydrocoelelectomy	2	●		
9	Instrument set, anaesthesia, hysterectomy	2	●		
10	Instrument set, anaesthesia, IV cut-down	3	●		
11	Instrument set, anaesthesia, laparotomy	4	●		
12	Instrument set, anaesthesia, lumbar, fracture, adult	4	●		
13	Instrument set, anaesthesia, orthopaedic	4	●		
14	Instrument set, anaesthesia, skin biopsy	2	●		
15	Instrument set, anaesthesia, skin graft	2	●		
16	Instrument set, anaesthesia, stitch removing	2	●		
17	Instrument set, anaesthesia, tracheostomy	3	●		
18	Instrument set, anaesthesia, tubal ligation	5	●		
19	Instrument set, anaesthesia, urology	5	●		
20	Instrument set, anaesthesia, vasectomy	2	●		

Area: Changing Room/Locker Room for Female and Male

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Bench, 4 seats, plastic	3		●	
2	Locker, 10 compartments, with lock and key, metal	2	●		

Area: Store

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A	Sundries, domestic				
1	Cleaning utensils; set	2		●	

Area: Recovery Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A	Equipment, medical				
1	Suction machine, 2-jar, electric, 230v, 50 Hz, mobile	2		●	
2	Suction machine, 1-jar, manual, portable	2		●	
3	Sphygmomanometer, aneroid, portable and on castors	2	●		
4	Pulse oximeter; internal, rechargeable; fully charged in 6 hours. Approximately 4-5 hours of continuous use, 3-digit LED (light-emitting diodes) display, Range 0-100% Accuracy: ±2% at 70-100%, ±3% at 50-69% Averaging: 4.8- or 16-pulse beat average. - Pulse rate: Range 30-254 bpm - Accuracy: ±2% at	5	●		

	30-254bpm - Averaging: 8 or 16-second average. LED flashes to alert the operator to check the sensor placement; Operating temperature is 0 to 45°C				
5	Monitor, physiologic, multi-parameter, 230 V, 50 Hz	2	●		
<b>B Furniture, medical</b>					
1	Hospital bed, adult, with side rail, measuring 2000 (l) x 900 (w) x 600 (h) mm. With a backrest adjustable up to 30° in 3 steps of approximately 10°. Mesh size and reinforcement of bed to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm. Bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. Square section ends to be fitted with rubber or plastic bungs. The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively. Epoxy finish. Collapsible slide rails with spring hook security system	10	●		
2	Drip stand, double hook	10		●	
<b>C. Furniture, office</b>					
1	Chair, office, stackable	3			●
2	Cupboard	1		●	
3	Desk, wood	1		●	
4	AC, split type, 230 V, 50 Hz, 1.5 kW	1		●	
5	TV, 230 V, 50 Z, flat, LED, 32 inches	1			

Area: Sluice Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
<b>A. Furniture, medical</b>					
1	Trolley, laundry; soiled linen, double bag, tubular or rectangular frame on 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of chromium-plated or stainless steel. Thickness of tubing 2 mm. Provision to hang 2 removable collection bags of 450 mm diameter, Collection bags of linen canvas. With one spare bag. Size: approximately 900 (l) x 450 (w) x 950 (h) mm.	5		●	
<b>B. Hollow ware/containers</b>					
1	Dust bin	1			●
2	Basin, wash, plastic; 40 cm. diameter	1			●

Other Areas: These areas may need similar Office furniture mentioned above

1. Surgeon's Office
2. Anaesthesia Office
3. Head Nurse's Office
4. Receptionist's office

**Department: Central Sterile Supply; Sterilization**

Area: Store, Sterile Department

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Racks, storage	1		●	

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A	Equipment, domestic, kitchen				
1	Hot plate, medium, 2,000 W, 230 V, 50 Hz	1		●	
2	Stove, kerosene, 1 burner, 2 L	1		●	
B.	Equipment, medical, sterilization				
1	Sterilizer units; a) steam, non-vacuum, vertical, fuel-fired, medium; 39L, b) tabletop, electric, semi-automatic, steam, up to 134 °C, 6-15 Ls, 3) steam, electric, fully automatic, vertical/horizontal 76 L	1	●		
C.	Furniture, medical				
1	Trolley, instruments	2		●	
D.	Furniture, Office				
1	Chair, metal	3		●	
2	Shelves, aluminium, customised	1		●	
3	Stool, metal, basic	1	●		
4	Table, metal	1	●		
E.	Hollowware/containers				
1	Dust bin	4			●
2	Tray, instruments, sets of 3 sizes with cover, 300 x 250 x 50 mm	2		●	

**Department: Burn**

Area: Treatment Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical, surgical instruments				
1	Instrument set, minor plastic/graft set	2	●		
2	Instrument set general plastic surgery for Burns re-construction	2	●		
3	Dermatome machine; electric	2	●		
4	Mesh graft machine	2	●		
5	Skin graft knife	2	●		
6	Skin hooks	2	●		

7	Fine instrument set	2	●		
8	Medium/amputation set	2	●		
9	Bone nibbler; straight and curved	2	●		
B. Equipment, domestic					
1	Blender	1			●
2	Kettle, boiling, 2 litres	1			●
C. Equipment, medical					
1	Bathtub, Mobile	1			●
2	Crutches, walker	5	●		
3	Bed, cradle	2	●		
4	Scale, weighing (chair or sit upscale)	1			●
5	Wheelchair	2	●		
6	Couch, examining	2	●		
D. Equipment, medical, sterilization					
1	Sterilizer, steam, high speed, semi-auto, tabletop, up to 134 °C, 230 V, 50 Hz	2	●		
E. Equipment, medical, sterilization packaging					
1	Drums, sterilizing, small, medium, large	4	●		

**Department: Orthopedic**

Area: Plaster Room

Nr	ITEM/DESCRIPTION	QT Y	PRIORITY		
			H	M	L
A. Furniture, medical					
1	Water container with tap, on a stand, Capacity of container 20 Litre, inclusive basin	2			●
2	Trolley, plaster	2			●
3	Footstep, 1x, wood	2			●
4	Cast cutter, electric, small, medium, large, Plaster of Paris	2	●		
5	Hand drill, electric and manual with a drill bit, various sizes	2	●		
6	Cupboard for cotton and bandages/instrument	1	●		
7	Cupboard	1	●		
8	Steinmann pins, threaded, various sizes; set	1	●		
9	Steinmann pins, unthreaded, various sizes; set	1	●		
8	Stirrups, traction	5	●		
10	Saw, amputation, small, large	2	●		
11	Saw, Gigli	1	●		
12	K-wire	1	●		
13	Frames, blounts	2	●		
14	Crutches of various sizes; 3	1	●		
15	Wheelchairs	2	●		



16	Frame, walking, various sizes	5	●			
17	Fragment set; Instruments, small and large	1	●			
18	Holman's retractors; various sizes; set	1	●			
19	Nibbler, bones, various sizes	5	●			
20	Curette, bone, various sizes	5	●			
21	Osteotomes, various sizes	2	●			
22	Chisels, various sizes	2	●			
23	Rasp Orthopaedic, S/S, various kinds	2	●			
24	Gouges set, various	1	●			
25	Forceps	15	●			
26	Drum, sterilizing	5	●			
27	Fork, tuning	2			●	
28	Tape, measuring	1			●	
29	Trigonometry	2			●	
30	Hooks, bone, various use	5	●			
31	Hammer, orthopaedics	2	●			
32	Shield, amputation	2	●			
33	Probes and handle	2			●	
34	Thomas splint, various sizes; set	5	●			
35	External fixator; large for lower limbs and small for upper limbs	5	●			
36	Weights; various;0.5-5 kg	1	●			
37	Trolley, dressing	2			●	
38	Elevator, orthopaedics, various use	2	●			
39	Shears/Scissors, Plaster of Paris	2	●			
40	Tourniquet, pneumatic	5			●	
41	Bandages, rubber, Esmarch	5			●	
42	Collar, neck, hard and soft	2	●			
43	Aprons					●
44	Goggles/visors				●	
45	View box, x-ray, 3 fields	2			●	
46	Chair, wood	5				●
<b>B. Equipment, office</b>						
1	Clock, wall, digital	1				●
2	Table, wood	1			●	
3	Chair, wood	2			●	
4	Chair, executive	1				●
5	Benches					●
6	Dust bin	1				●
<b>C. Equipment, medical instruments</b>						
1	Beds, orthopaedic, adjustable, with overhead traction beams, traction bars, pulleys	20	●			
2	Monitor, physiologic, multi-parameter, NIBP	2	●			
3	Pulse oximeters	5	●			
4	ECG monitors; 3-leads	3	●			
5	Instrument set, orthopaedic	5	●			
6	Instrument set, minor surgery	2	●			

7	Instrument set, suture	5	●		
8	Bed, ICU/HDU	5	●		
9	Glucometer	2	●		
10	Suction machine; electrical and manual	2		●	
11	Oxygen concentrators; 10-15 LPM	5		●	
12	Syringe Driver/pump	2	●		
13	Cylinders, oxygen, 40-50 L, medical	2		●	
14	Digital Thermometer			●	
15	Resuscitator; Manual	2	●		
16	Ventilator; mechanical/digital, 230 V, 50 Hz, built-in air compressor	2	●		
17	Plaster table, orthopaedic, fracture	1		●	
18	Oscillating plaster saw, electric; 230 V, 50 Hz	2	●		
19	Light, examining, mobile	2		●	
20	Screen, four-fold, on castors	2		●	
21	Treatment bed/operating table/ theatre bed	2	●		
22	Screen, four-fold, on castors	2	●		
23	Drip stand, double hook			●	
24	Cast cutter, electric	5	●		

Area: Theatre, Orthopaedic

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical, theatre set, orthopaedics					
1	Osteotomes, various sizes	2	●		
2	Mallets /hammers (various sizes)	2	●		
3	Holman retractors (various sizes)	2	●		
4	Periosteal elevators (various sizes)	2	●		
5	Bone nibblers	2	●		
6	Bone cutters (various sizes)	2	●		
7	Bone holding Clamps (various sizes)	2	●		
8	Bone hooks	2	●		
9	Bone spikes	2	●		
10	Bone gouges (various sizes)	2	●		
11	Bone wire cutters (various sizes)	2	●		
12	Pin cutters (various sizes)	2	●		
13	Bone curettes (various sizes)	2	●		
14	Pliers	2	●		
15	Gigli saw	1	●		
16	Amputation saw	2	●		
17	Amputation soft tissue place retractors	2	●		
18	Self-retaining soft tissue retractors (various sizes)	2	●		
B. Furniture, office					
1	Bin, pedal	1			●

2	Cupboard	1		●	
3	Fan, ceiling, electric, 2 ft blade	1			●
C. Equipment, medical, imaging, x-ray					
1	View box, x-ray 4 fields	1		●	
2	C-arm x-ray machine	1	●		
D. Equipment, medical, Instrument					
1	Plaster instrument set	1	●		

Area: Examination Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical, anaesthesia					
1	Cylinder, oxygen, medical, 40-50 L, complete with a regulator, flowmeter, 10 LPM and humidifier	1	●		
2	Oxygen Concentrator, 10 LPM	2	●		
3	Resuscitator, manual	1	●		
B. Equipment, medical, imaging, x-ray					
1	View box, X-ray, PVC Coated	1			●
C. Equipment, medical, instrument set					
1	Diagnostic set for Minor surgery	2	●		
2	Instrument set, Orthopaedic	2	●		
3	Instrument set, General Surgery, large	2	●		
4	Skin grafting set	1	●		
D. Equipment, office					
1	Clock, wall type	1			●
E. Furniture, medical					
1	Examination couch	1	●		
2	Screen, four-folds, with castors	1		●	
3	Drip stand, double hooked	2		●	
4	Stretcher	2	●		
5	Trolley, patient	2	●		
6	Trolley, dressing	2	●		
7	Wheelchair	1	●		
F. Furniture, office					
1	Chair, metal	2		●	
2	Chair, executive	1		●	
3	Desk, wood	1			●
4	Cupboard	1		●	
5	Bench, wood	1			●

6	Basket, waste, paper	1			●
7	Dust bin	1			●

**Department: Physiotherapy**

Area: Treatment Room, Physiotherapy

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Ball, physiotherapy, set	1	●		
2	Exercise, arm, muscle	3	●		
3	Exercise, foot, muscle	3	●		
4	Mattress, exercising, washable, foldable	3	●		
5	Mirror, physiotherapy	1	●		
6	Parallel bars, physiotherapy, metal, S/S coated	1	●		
7	Wheelchair; small, medium, large	3	●		
8	Screen, four-folds, on castors	4		●	
9	Combined wax sterilizer and wax bath	1	●		
10	Hard adjustable neck collar with chin pieces; small, medium, large	2	●		
11	Wrist braces (lock-up splint); small, medium, large	2	●		
12	Balance bench	2	●		
13	Medicine ball set	3	●		
14	Short wave unit; radiant	2	●		
15	TENS	5	●		
16	Pyramid, walking frame; small, medium, large; aluminium; with 2 wheels and without	3	●		
17	Mirror, posture	2	●		
18	Ergonometer	2	●		
19	Treadmill, motorized, with speed and incline adjustment	3	●		
20	Treadmill, manual	5	●		
21	Crutches, metallic, adjustable; small, medium, large	1	●		
22	Pedal bin	1			●
23	Stationary bike, with load adjustment	5		●	
24	Sphygmomanometer, aneroid type and stand type with castors	5	●		
25	Ultrasound machine	2	●		
26	Paraffin bath	1	●		
27	Dumbbells; 1 kg	5	●		
B.	Equipment, medical, refrigeration				
1	Chilling, freezer unit	1			●
C.	Furniture, medical				
1	Couch, examination, 2 sections	2	●		

D.	Furniture, office				
1	Bench, steel, chrome-plated, 4-seater, customised	2			●
2	Chair, basic, metal	4			●
3	Desk, wood	1		●	
E.	Equipment, office				
1	Fan, electric, ceiling, 2 ft blade, 230 V, 50 Hz	4		●	

Area: Waiting Area

Nr	ITEM/DESCRIPTION	QT Y	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Bench, steel, chrome plated, 4-seater, customised	2		●	
2	Chair, basic, metal	4			●
3	Desk, wood			●	
B.	Equipment, office				
1	Fan, electric, ceiling, 2 ft blade, 230 V, 50 Hz	4		●	

Department: Pharmacy

Area: Dispensary

Nr	ITEM/DESCRIPTION	QT Y	PRIORITY		
			H	M	L
A.	Equipment, glassware				
1	Hand washing, soap dispenser/sanitizer	1			●
2	Coat hook	2			●
3	Cylinder measuring glass; 10 ml; 100 ml	2	●		
4	Rod stirring, glass, 230 x 6 mm	2	●		
5	Counting device, tablet/capsule	2	●		
6	Photoelectric cell counters	1	●		
B.	Equipment, refrigeration				
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	2	●		
C.	Furniture, medical				
1	Cupboard, drugs/medicine	3	●		
D.	Furniture, office				
1	Basket, waste, paper	1			●
2	Chair, office, with armchair and backrest, cushioned, on castors, height adjustable	3		●	
3	Chair, metal, stackable, basic	2		●	
4	Cupboard	1	●		

5	Desk, metal, approximately 1600 x 750 mm	1	●		
6	Racks, storage, set	1		●	
7	AC, split type, 1.5 KW, inverter	1		●	
8	Bench, plastic or S/S, 4 seats,	2		●	

Area: Preparation Room, Pharmacy

Nr	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, glassware					
1	Glassware set, pharmacy	2	●		
B. Equipment, medical, laboratory					
1	Balance, chemical, 2 kg x 0.1 g; digital	1	●		
2	Balance, dispensing, 100 g x 10 mg	1	●		
3	Distilling unit; 100 L per 24 hours, self-desired volume, ASTM, type II water, 3000 W, 230 V, 50 Hz,	1	●		
4	Electric mixer; with timer, flow and weight measuring	2	●		
5	Bucket, 50 L	1			●
C. Equipment, refrigeration					
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1		●	
D. Furniture, office					
1	Chair, basic, metal, stackable	3		●	
2	Cupboard, drug	1		●	
3	Stool, basic, metal	1		●	

Area: Store, Pharmacy

Nr.	ITEM/DESCRIPTION	QTY	VPRIORITY		
			H	M	L
A. Furniture, office					
1	Rack, storage, set	2		●	
2	Desk, wood, with drawers and lock and key	1		●	
3	AC, split type, inverter, 2 KW, 230 V, 50 Hz	1		●	
4	Chair, office, armchair	3			●
5	Cupboard, drug	1	●		
6	Fan, electric, ceiling, 2 ft blade, 230 V, 50 Hz	1			●
7	Calculator, desk type, electronic, solar powered	1			●
8	Basket, waste, paper	1			●
9	Chair, monoblock, plastic	1			●
10	Clock	1			●
11	Computer, Desktop with UPS and AVR and printer	1		●	
B. Furniture, medical					

1	Trolley, dispensing; with shelves, 600 (l) x 450 (w) x 800 (h) mm, tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of S/S. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm.	2	●		
2	Trolley, flatform, truck	2	●		
3	Cupboard, drugs	1	●		
C. Equipment, refrigeration					
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1		●	
D. Equipment, domestic					
1	Ladder, aluminium, single, 3-steps, 4 ft.	1		●	

**Department: Ophthalmology**

Area: Examination/Consultation Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Chart, eye, vision testing, Snellen, alphabet/iLlate	2	●		
2	Chart, eye, vision testing, Near chart	2	●		
3	Chart, eye, vision testing, Snellen, E chart	2	●		
4	Light, examining	2	●		
5	Sphygmomanometer	3	●		
6	Stethoscope	4	●		
7	Thermometer, clinical, digital, Infrared	2		●	
8	Tonometer	2	●		
9	Screen, four-fold, on castors	2		●	
10	Weighing scale, adult, physician, with height measurement, metric, 140kgx100g	2		●	
11	Weighing scale, toddler, digital	2	●		
B. Equipment, medical, ophthalmology					
1	Slit lamp	2	●		
2	Magnifying loop	2	●		
3	Trial set with trial frame, small	1	●		
4	Lensometer	1	●		
C. Equipment, medical, surgical instruments					
1	Diagnostic equipment set	2	●		
D. Furniture, medical					
1	Examination couch	1	●		

E.	Sundries, miscellaneous				
1	Torch, penlight, with extra bulb	5		●	

Area: Treatment Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Chalazion Set	3	●		
2	Instrument set, foreign body removal	2	●		
3	Instrument set, suturing	2	●		
4	Instrument set, Entropion	3	●		
5	Instrument set, Enucleation	3	●		
6	Instrument set, Suture removal set	2	●		
7	Instrument set I & D	2	●		
8	Instrument set, cataract	4	●		
9	Scissors, stitch	4	●		
10	Scissors, curved, small	4	●		
11	Scissors, curved, medium	4	●		
12	Needle holders	4	●		
13	Epilation forceps	3	●		
14	Lid retractors adult	4	●		
15	Lid retractors, children	4	●		
16	Eyelid retractors, Desmarres, adult, size 3, 5.5 "	3	●		
17	Eyelid retractors, Desmarres, children, size 0, 5.5 "	3	●		
18	Forceps, artery curved, small	4	●		
19	Forceps, artery straight, small	4	●		
20	Forceps, dissecting, toothed, small	4	●		
21	Forceps, dissecting, non-toothed	4	●		
22	Knife handle, surgical, Bard-Parker 3	4	●		
23	Knife handle, surgical, Bard-Parker 4	4	●		
24	Forceps, Cheatle, 270mm	4	●		
B.	Equipment, medical				
1	Trolley, dressing, with shelves, s/s, 600L x 450W x 800H mm	2		●	
2	Wheelchair	1	●		
C.	Furniture, medical				
1	Drip stand, double hook, adjustable height, on castors	3		●	
D.	Furniture, office				
1	Bin, pedal	1			●
2	Clock, wall type, digital	1			●
3	Kettle, boiling, 2 L	1			●
4	Chair, armchair, office	3		●	
5	Basket, waste, paper	1			●
6	Bench, wood	1			●



7	Stool, adjustable with cushion	1			●	●
8	Cupboard	1			●	
9	Table, office	1			●	
10	Desk, computer, CPU, keyboard, monitor and printer with AVR	1			●	
E. Equipment, glassware						
1	Bottle, eye dropper, glass 60 ml	2	●			
2	Eyeball glass	1				●
3	Measure, medicine glass	2			●	
F. Equipment, sterilization						
1	Sterilizer, autoclave, steam, high-speed, semi-auto, 134 °C	3	●			
2	Drum, sterilizer	3	●			
G. Hallow ware/containers						
1	Basin, dispensing, s/s 25ml	1			●	
2	Bowl s/s 152mm	1			●	
3	Bowl s/s 255mm	1			●	
4	Gallipot, p/p, 75mm diameter	5			●	
5	Gallipot, s/s, 57ml	5			●	
6	Jug, measuring, various sizes, S/S	2			●	
7	Kidney dish, s/s, 203mm with cover	4			●	
8	Kidney dish, s/s, 152mm, with cover	4			●	
9	Kidney dish, medium with cover	4			●	
10	Measure, medium, p/p 50ml	3			●	
11	Brush, surgeon's, scrub, autoclavable, nylon bristles	2			●	
12	Jar, anaerobic, 2,5 L with baskets	2			●	
13	Instrument trays with covers	2			●	
14	Sponging holding forceps, small	10			●	
15	Urinal male PP (polypropylene)	2			●	
16	Bedpan S/S	5			●	
17	Mayo tray and stand	5			●	
18	Bowl, kick, s/s, with stand and anti-static castors	2			●	
19	Bucket, mop	4				●

Area: Waiting Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Chair, monoblock, plastic	3			●

**Department: Mortuary**

Area: Mortuary

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical, surgical instruments					
1	Instrument sets, post-mortem	2	●		
B. Equipment, medical, refrigerator					
1	Trolley, cadaver	2	●		
2	Refrigerated; 3 x 3 cabinet, cadaver	1	●		

Area: Mortuary, Office

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Basket, waste, paper	1			●
2	Chair, basic, metal	2		●	
3	Chair, office	1		●	
4	Cupboard, instrument	1		●	
5	Desk, metal	1		●	

Area: Store, Mortuary

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Cupboard	1		●	
2	Rack, storage, set	1		●	
3	Shelves, steel, customised	1			●
4	Ladder, aluminium, 3-step	1	●		

**Building: Administration****Department: Administration**

Area: Conference Room/Library

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, Office, Information, teaching aids					
1	Projector, LCD	1			●
2	Sound system, Bluetooth, FM/AM, 500 Watts, 230 V. 50Hz, CD/Video player, USB port	1			●
3	TV/Monitor, 32 in, flat, LED	1			●
4	Screen, projector, roll-up	1			●

5	Whiteboard, 4 x 8 ft	1			●
6	Microphone, table	1			●
7	AC, split type, inverter, 2 KW, 230 V, 50 Hz	1		●	
B.	Furniture, office				
1	Chair, office, armchair	3			●
2	Chair, basic, metal, stackable	10			●
3	Cupboard	1	●		
4	Table, conference, wood, customized to the size and shape of the room; 10-15 seater	1		●	

Area: Medical Superintendent Office, Administration

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Cabinet, with lock and keys	1			●
2	Chair, office, armchair, visitor	2			●
3	Chair, executive, swivel	1			●
4	Cupboard	1			●
5	Desk, metal/wood; 1600 x 700 mm	1			●
6	Shelves, wood, aluminium or steel, customised	1			●
7	Basket, waste, paper	1			●
8	Conference table and chairs, small, 5-6 seater	1			●
B.	Equipment, office				
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1			●
2	AC, split type, inverter, 2 kW, 230 V, 50 Hz	1			●
C.	Equipment, domestics				
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1			●
2	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1			●

Area: Hospital Secretary

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, office				
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	2	●		
2	AC, split type, inverter, 2 kW, 230 V, 50 Hz	1		●	
B.	Equipment, domestics				
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1			●
2	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1			●

C.	Furniture, office				
1	Cabinet, with lock and keys	1		●	
2	Chair, office, armchair, visitor	2		●	
3	Chair, executive, swivel	1		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	1		●	
6	Shelves, aluminium, customised	1			●
7	Basket, waste, paper	2			●

Area: Matron Office

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, office				
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1		●	
2	AC, split type, inverter, 2 kW, 230 V, 50 Hz	1		●	
B.	Equipment, domestics				
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1			●
2	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1			●
C.	Furniture, office				
1	Cabinet, with lock and keys	1		●	
2	Chair, office, armchair, visitor	2		●	
3	Chair, executive, swivel	1		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	1		●	
6	Shelves, wood, customised	1			●
7	Basket, waste, paper	1			●

Area: Reception, one for Medical Superintendent, HS and Matron

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, office				
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1			●
2	Fan, ceiling, electric, 2 ft blade, 230 C, 50 Hz	1	●		
B.	Equipment, domestics				
1	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1			●
C.	Furniture, office				
1	Cabinet, with lock and keys	1		●	

Commented [SD1]: Not clear on abbreviation?

2	Chair, office, armchair, visitor	2		●	
3	Chair, executive, swivel	1		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	1		●	
6	Shelves, wood, customised	1		●	
7	Basket, waste, paper	4			●

Area: Storeroom

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Shelves, wood, customised	1	●		
2	Cupboard	1		●	
B.	Equipment, office				
1	Chairs, metal, basic	2		●	
2	Ladder, aluminium, 4 ft, 3-steps	1		●	
3	Fan, electric, ceiling, 2 ft blade, 230 V, 50 Hz	1		●	

**Building: Laundry**

**Department: Laundry**

Area: Laundry

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, Domestic				
1	Sewing machine, electric, pedal, industrial type	2	●		
2	Scissors, linen, 8 inches, metal handle, industrial type	4	●		
B.	Equipment, laundry, domestic,				
1	Dryer, automatic, industrial, 20-25 kg, front-loading, time-controlled, electric, 230 V, 50 Hz	2	●		
2	Hydro extractor; automatic, industrial type, 20-25 kg, front-loading, time, controlled, electric, 230 V, 50 Hz	2	●		
3	Iron, electric, heavy-duty, 230 V, 50 Hz, steam and dry	2	●		
4	Ironing machine, industrial, roller type, 3 rollers	1	●		
5	Washing machine, 20-25 kg; industrial type, front-loading, time-controlled, automatic, 230 V, 50 Hz	2	●		
C.	Furniture, office				
1	Basket, waste, paper	1			●
2	Cupboard	1		●	
3	Chair, basic, metal	2		●	
4	Desk, metal	1		●	

Area: Storeroom, laundry,

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Rack, storage, set for clean	5	●		
2	Rack, storage, set for dirty	5	●		

**Department: Hospital Maintenance Unit**

Area: Generator and Solar Power Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Gen-set room					
1	Gen-set, stand-by, 250 KVA, 0.8 p.f., 3-phase, 400/380/230 V, 4-wire; 50 Hz, 1500 rpm	1	●		
2	Basic tools set for mechanics	1	●		
3	Jerrycan; plastic, 20 L	5	●		
B. Solar power plant					
1	15 KVA, 3-phase, 230 V, 50 Hz, solar power plant; MPPT, Inverter, battery banks	2	●		

Area: Office, Maintenance

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Basket, waste, paper	1			●
2	Cupboard	1	●		
3	Chair, basic, metal, visitors	3	●		
4	Desk, metal, 1300 x 700 mm	1	●		
5	Chair, executive, swivel on castors	1	●		
B. Equipment, office					
1	AC, 1.5 KW, inverter, split type, 230 V, 50 Hz	1	●		

Area: Storeroom

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Shelves, wood, customized	3	●		
2	Cupboard	1	●		
3	Racks, storage	5	●		

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Area: Reception

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, office					
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1		●	
2	Fan, ceiling, electric, 2 ft blade, 230 C, 50 Hz	1		●	
3	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1	●		
B. Equipment, domestics					
1	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1		●	
C. Furniture, office					
1	Cabinet, metal, with lock and keys	1	●		
2	Chair, basic, metal, visitor	3		●	
3	Chair, monoblock, plastic	2		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	1	●		
6	Shelves, metal, customised	2	●		
7	Basket, waste, paper	1			●

Area: Workshop; maintenance

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Tools, building					
1	Tool kit, mason/plasterer	2	●		
2	Workbenches	5	●		
B. Tools, carpentry					
1	Tool kit, carpentry	2	●		
C. Tools, electrician					
1	Tool kit, electrician	2	●		
2	Workbenches and stools (3 stools per bench)	5	●		
D. Tools, biomedical technician					
1	Tool kit, electronic/biomedical technician	2	●		
2	Workbenches and stools (3 stools per bench)	5		●	
E. Tools, mechanic/welder					
1	Tool kit, mechanic	2	●		
2	Welding machine, arc welding, spot welding, oxy-acetylene	1			

F.	Tools, plumbing				
1	Tool kit, plumbing	1	●		

**Building: Kitchen**

**Department: Dietary and Nutrition**

Area: Store, Kitchen

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Shelves, aluminium customised	10		●	
2	Cupboard	1		●	
3	Racks, storage	2		●	
4	Pallets	5			●
5	Platform scale, analogue	1	●		
6	Lifter	1			●
7	Scale, retail	2	●		
B.	Equipment, domestic, kitchen				
1	Serving ladles, wood	3		●	
2	Heavy duty, hotplate	1			●
3	Cooker, electric, 230 V, 50 Hz, 5 L	1	●	●	
4	Butcher knives; butcher knife, fluted	1			
5	Stirring sticks	12		●	
6	Food warmers	13	●		
7	Cooking pots, assorted aluminium	6	●		
8	Trolley, food, on castors, 3-inch	12	●		
9	Meat cutter, electric	1			●
10	Chopping board, complete with mallet	2	●		
11	Cook's knife	12	●		
12	Salmon serrated knife	1	●		
13	Chopping knife	1	●		
14	Cleavers arus knife	1	●		
15	Bread knife	2	●		
16	Steak knife	2	●		
17	Scale, hanging	1	●		
18	Chopping block	1	●		
19	Axe, hand	1			●
20	Basin, S/S, various sizes	8		●	
21	Slicer, meat	1		●	
C.	Refrigeration				
1	Cold room, 10 m <sup>3</sup>	1		●	
2	Refrigerator, domestic, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1	●		
3	Freezer, deep, with AVR	2	●		
4	Chiller	1	●		



Area: Cooking area

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, kitchen, domestic				
1	Cooking pots	4	●		
2	Large plate stove; electric	1	●		
3	Microwave Oven	1	●		
4	Deep fryers heavy duty with perforated baskets	1		●	
5	Frying pans	4		●	
6	Baine Marie	1		●	
7	Hot cupboard Baine Marie			●	
8	Food warming cabinet	1		●	
9	Boiling urns				●

Area: Preparation area, food

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, kitchen, domestic				
1	Potato masher	1		●	
2	Vegetable cutter	1		●	
3	Blender	2	●		
4	Whisk	2	●		
5	Ladles	12	●		
6	Portion server	20		●	
7	Perforated spoons	5	●		
8	Solid spoon	4		●	
9	Sided grater	2	●		
10	Carvery forks	2		●	
11	Grill fork lifter	2		●	
12	Tong salad square	-			●
13	Tong serving oval; solid ends	-			●
14	Chip basket; 5 x 2 sizes	1		●	
15	Egg lifter	1		●	
16	Egg wedger	1		●	
17	Can opener	2	●		
18	Tomato slicer	1		●	
19	Mixing bowl; 5 x different sizes	2	●		
20	Mixing machine	1		●	
21	Bulk food trolley	1	●		
22	Hospital food service trolley	4	●		
23	Soup warmer	1	●		
24	Vulcan pot	1	●		
25	Milk Jug	1	●		
26	Cutlery set	-1	●		
27	Plates	24	●		
28	Water glass	24	●		
29	Stock pots; 4 x 2 different sizes	1		●	

30	Saute pans	1			●
31	Casseroles with lid	1			
32	Tea trolley	1			●
33	Frying pans	1	●		
34	Conveyor toaster	1			●
35	Colander	1		●	
36	Conical strainer	1		●	
37	Plate warmer	1			●
38	Scoops; 20 x 3 different sizes	1		●	
39	Baking tins			●	
40	Baking trays			●	
41	Silicon moulds; 5 x 3 different sizes			●	
42	Drying racks		●		

Area: Office, Dietitian/Nutritionist

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Basket, waste, paper	1			●
2	Cupboard	1		●	
3	Chair, basic, metal, visitors	3		●	
4	Desk, metal, 1300 x 700 mm	1		●	
5	Chair, executive, swivel on castors	1		●	
B. Equipment, Office					
1	AC, 1.5 KW, inverter, split type, 230 V, 50 Hz	1	●		

Area: Wet area, Kitchen

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Rack, storage, sets	1		●	
2	Table, metal, 1300 x 700 mm	1		●	

### Building/Office

Department: Solid Waste Management/Environmental Health and Sanitation

Area: Store

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, Office					
1	Shelves, metal/aluminium, customised	1		●	
2	Cupboard	1		●	

Area: Office; Environmental Health Officer

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture and Equipment, Office				
1	Rack, storage, sets	1			
2	Table, metal, 1300 x 700 mm	1		●	
3	Basket, waste, paper	1			●
4	Cupboard	1		●	
5	Chair, basic, metal, visitors	1		●	
6	Desk, metal, 1300 x 700 mm	1		●	
7	Chair, executive, swivel on castors	1		●	
8	AC, 1.5 KW, inverter, split type, 230 V, 50 Hz	1		●	
9	Desktop computer, with UPS and monitor	1		●	

Area: Waste Management Area

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, waste management				
1	Incinerator, Diesel-fired: Refuse Collector, Capacity: 20kg/h incinerator, Fuel: Diesel fuel incinerator, Function: Recycle Metal, Power Supply: 220V/50HZ)	1	●		
2	<b>De Montfort (brick-type)</b> - high-temperature dry oxidation at > 850°C in the primary chamber and 1,100°C in the secondary chamber with a retention time of two seconds to avoid the formation of dioxins and furans	1	●		
3	<b>Autoclaves; Medical, biohazard, waste</b> (Horizontal Stainless Steel Pressure Steam Sterilizer, Working pressure: 0.22Mpa, Working temperature:134°C, Adjustment of temperature:40°C-134°C, Timer: 0-60min, Drying Time Range: 0-60min, Power: 9-18KW / AC 400/230V 50HZ	1	●		
4	Bin, waste, with wheel, foot-operated cover	5	●		
5	Gloves, rubberized; pair, heat resistant, elbow length	10	●		
6	Apron, heat resistant, washable, knee-length	5	●		
7	Boots; pair, high-cut gum-like, a mix of rubber and plastic materials, slip-free, waterproof, heat resistant	5	●		
8	Goggle; clear and transparent material, scratch-resistant, to cover the whole face, Velcro fittings	5	●		
9	Shovel, big, metal, rust-free	2	●		
10	Wheel Burrow; metal, rubberized wheel	2	●		

NOTE:

The services in each department may not be currently available in the service package; however, the listed equipment is geared towards expanding the service package of a district referral hospital or hospital to its optimum capability. Hence, the equipment is in anticipation of that vision.

Even the dietary services are geared towards providing the best nutrition the hospital can provide to its patients, as well as 24 hours on-duty medical officers and the surgery/OT department staff.

## Standard List of Equipment

### Archetypical Tertiary Health Care Facility; 250 above bed capacity

Area: Triage & IPC

Nr	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Triage				
1	Chair, bench x 5; plastic	3	●		
2	Table, metal, 1300 x 700 mm	1	●		
3	Infrared thermometer	5	●		
4	Dustbin	2		●	
5	Veronica bucket	2	●		
6	Liquid soap	1			●
7	Bucket stand	2			●
8	Wastewater bowl	2	●		
9	Pulse oximeter, spot-check, hand-held with RR	5	●		
10	Defibrillator, AED	2	●		
11	Examining lamp, angle-poise	5	●		
12	Resuscitator; manual	10	●		
13	Stethoscope	5	●		
14	Glucometer with microcuvettes	2	●		
15	Sphygmomanometer	5	●		
16	Clock, wall	2	●		

### Department: Outpatient Department

Area: First Aid/Emergency/ Accident and Emergency, and Medical Observation

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Light, operating, mobile, LED; with rechargeable battery back-up	2	●		
2	Light, operating, ceiling-mounted, LED, single dome head, 230 V, 50 Hz	1	●		
3	Table, operating, universal, mechanical, hydraulic; Mobile operating table with manual operated functions, Five section table top with separate pads of min 50 mm thickness for the head, back, seat and legs, Table top frame and column	2	●		

	casting made of stainless CrNi steel, with solid base construction, base cover made of CrNi steel				
4	Oxygen concentrator; 10 LPM, 230 V, 50 Hz	10			
5	Cylinder, oxygen, 40 L, mobile, with pressure regulator, Flow meter, 10 LPM and humidifier bottle	6	●		
6	Oxygen sockets, AFNOR or equivalent, Flow meter, 10 LPM and humidifier bottle	10	●		
7	Sphygmomanometer, aneroid, desk type and on castors	10	●		
8	Pulse oximeter, spot-check, hand-held with RR	5	●		
9	Defibrillator, AED	2	●		
10.	Examining lamp, angle-poise	5	●		
11	Resuscitator; manual	10	●		
12	Stethoscope	5	●		
13	IR thermometer	10	●		
14	Glucometer with microcuvettes	2	●		
B. Equipment, medical, anaesthesia					
1	Cylinder, oxygen, 40 L, mobile, with pressure regulator, Flow meter, 10 LPM and humidifier bottle	4	●		
2	Resuscitator, manual, adult and infant, complete with mask	5	●		
3	Anaesthesia Machine; Anaesthesia machine; with rotameter/flow meter, rebreathing circuit and CO <sub>2</sub> absorber, temperature-controlled vaporizer or draw-over vaporizer, and tray-mounted for equipment and instrumentation; US FDA approved or European CE mark. On a powder-coated trolley on castor, with drawers, safety features and a mechanism for accidental oxygen supply deficiency with alarm. With oxygen, flush at least 50 mL. With pin-index oxygen cylinder connected as a backup supply	2	●		
C. Equipment, imaging, x-ray					
1	View box, x-ray	2	●		
2	X-ray machine; mobile, DR, battery-powered; 300 mA	2	●		
3	Apron, leaded	2	●		
D. Equipment, medical, sterilization					
1	Sterilizer, high-speed, tabletop, steam, semi-automatic, 230V, 50 Hz, 134 °C, 6-15 ltr	2	●		
2	Disinfectant, boiling water type, electric, S/S, 5-10 L	1			●
E. Equipment, medical, surgical instruments					
1	Instrument set, dressing	3	●		
2	Instrument set, ENT, casualty	3	●		
3	Instrument set, stitch removing	3	●		
4	Instrument set, suture	3	●		
5	Chest drain set	3	●		
F. Equipment, Office					

1	Clock, digital, wall-mount, with day/date, temperature, °C/F and % RH; battery-operated, luminous even at daytime	2		●	
2	Kettle, water, boiling, 2 L, electric	2			●
G. Furniture, medical					
1	Cupboard, instrument, cabinet, metal frame, double, glass doors. Frame of 3mm mild steel. Sheet metal parts with epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. With 4 adjustable hardened glass shelves of 6 mm thickness. Dustproof. Door handles with security lock and 2 keys. Approximately size 750 (l) x 400 (w) x 1700 (h) mm	2		●	
2	Dripstand, Height adjustable 1200-2200 mm, wide stance base with castors. Double hook rod includes a positive stop to avoid disengagement from the base rod. With metallic adjustable locking device. Epoxy finish, made of chrome plated metal or stainless steel	10		●	
3	Screen, metal framed four-sectioned mobile screen on castors. Approximate size 1800 mm height. 4 panels of 500 mm wide. Frame with chrome plated or epoxy coating finish. Castors 50 mm diameter. Panels to have removable, washable cloth of 35% polyester and 65% cotton	10	●		
4	Bowl, kick, with stand and anti-static castors Material 18/10 S/S. Mounted on 4 castors, diam. 40 mm.	5	●		
5	Stool, surgeon's, adjustable, anti-static cushion S/S; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm. On 5 anti-static swivel castors	5	●		
6	Stretcher, collapsible, foldable emergency stretcher, made in anticorrosive, anodised aluminium with PVC-coated polyester sheet of 1 mm thickness to handle patient weight up to 130 kg. Fire retardant, foldable over width, approximately size (in open position): 2100 (l) x 500 (w) x 140 (h)mm	5	●		
7	Trolley, dressing, with shelves, 600 (l) x 450 (w) x 800 (h) mm tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Complete with: - Stainless steel bottle rack - Rectangular, detachable waste bin attached underneath the top shelf. Capacity of waste bin approximately 4 L- Stainless steel bowl of approximately 320 mm diameter; approximately 4 L	4	●		
8	Wheelchair, adult; 4 wheels (2 rear wheels and 2 front swivel castors, Seat and backrest providing sitting support for the wheelchair user, Foot supports, Armrests, Rear wheel locks (to park the wheelchair),; Folding frame, Push handles Integrated seat and backrest upholstery, preset tilt head support, wheels and Castors 2 larger rear wheels of 12" or	10	●		

	greater single (12" or greater) or dual (7" or greater) front castors COG frame adjustments				
9	Hand washing, bucket with cover and tap, stand and basin, plastic, 4 L	2		●	
H. Furniture, office					
1	Bench, 4 seats, steel/metal, fabricated	3		●	
2	Cupboard, lockable for drugs, storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors. The upper section is prepared for tablet and dangerous drugs storage, and the lower for 500ml 5 L stock bottles of medicines.	4	●		
3	Chair, armchair, with backrest, cushioned, back and seat	3		●	
4	Table, wood with 3 drawers, lockable	3		●	
5	Dust bin	3			●
6	Hollow ware set	3		●	
7	Tray instrument, set of 3 sizes with cover, S/S	2		●	

Area: Outpatient Department Dispensing

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, Office					
1	Basket, waste, paper	1			●
2	Cupboard, high, metal with glass and lock and key; Lockable storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors.	2	●		
3	Shelves, steel/metal/SS; customised	2	●		
4	Chair, arm, plastic; monoblock	5			●
5	Stool, stainless steel, adjustable height	2	●		
6	Desk, wood, 3 side drawers	2	●		
7	Hand washing; water container with a tap, on a stand; 20 L, with basin	2		●	

Area: Outpatient Department, examination room (consultation room)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY
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			H	M	L
<b>A. Equipment, Medical</b>					
1	Chart, eye, vision testing, Snellen, alphabet/iLLate	2	●		
2	Weighing scale, adult, physician, metric, 140kg x 100g; with height measurement in metric	3	●		
3	Weighing scale, baby, basin type, 10 kg, 10 grams scale; digital; battery and power adaptor supply	2	●		
4	Weighing scale, toddler, spring type	2	●		
5	Reflex hammer, rubber, solid	2		●	
6	Suction machine; electric and manual; 1-jar. With accessories and spares	3		●	
7	Proctoscope, adult and child	3	●		
8	Speculum, vaginal, small, medium, large	3	●		
9	Depressor, tongue, adult/child; disposable	100	●		
10	Sphygmomanometer, aneroid type	5	●		
11	Poised lamp, free standing	4	●		
<b>B. Equipment, Office</b>					
1	Clock, wall, digital, with day/date, temperature, °C/F and % RH; battery-operated, luminous even at daytime	2			●
<b>C. Equipment, medical instruments</b>					
1	Diagnostic equipment set	4	●		
2	Tonometer	4	●		
<b>D. Furniture, Medical</b>					
1	Examination couch, with polyurethane covered-mattress, adjustable; 2 sections (knock-down construction): 1800 mm (l) x 750 mm (w) x 760 mm (h). Folding table with top in two sections. Drop leaf section (headpiece) 490 mm (l) x 750 mm (w). Removable and adjustable by ratchet type frame. Frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2 mm thickness. With crossbars for stability. Square section ends to be fitted with rubber or plastic bungs. Sheet metal parts minimum 1.5 mm thickness.	4	●		
2	Screen, four-fold, on castors; Metal framed four-sectioned mobile screen. Approximate size 1800 mm height. 4 panels of 500 mm wide. Frame with chrome plated or epoxy coating finish. Castors 50 mm diameter. Panels to have removable, washable cloth of 35% polyester and 65% cotton.	4		●	
3	Hand washing; water container with a tap, on a stand; 20 L, with basin	2			●
4	Trolley, instruments, with s/s shelves, anti-static castors, 600 x 450 x 850 mm	2	●		
<b>E. Furniture, Office</b>					

1	Chair, arm, plastic; monoblock	4			●
2	Cupboard, high, metal with glass and lock and key	2		●	
3	Desk, wood, 3 side drawers	2		●	
4	Filing cabinet, 4 drawers; steel, with lock	2			
5	Chair, armchair office, with backrest; adjustable height	3		●	
6	Bench, 4 seats, PVC,	3			●
7	Basket, waste, paper	2			●
F. Hollow ware/Containers					
1	Dust bin	1			●
2	Hollow ware, set, consulting room	2		●	
G. Equipment, medical, imaging					
1	View box, x-ray	1		●	
H. Equipment, medical, laboratory					
1	Glucometer	2	●		
2	Hemoglobinometer	2	●		

Area: Outpatient Department treatment/medical observation room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Light, examination, LED, articulated, floor standing on castors, 230 V, 50 Hz	2	●		
2	Suction machine, electric, 2-jar, 1.5 L, 230 V, 50 Hz, mobile	2		●	
3	Suction machine, manual, 1-jar, portable	2		●	
4	Nebulizer, electric, 230 V, 50 Hz	5	●		
5	Sphygmomanometer, aneroid type, tabletop, mobile on castors and wall-mount	5	●		
B. Equipment, medical, sterilization					
1	Sterilizer, high-speed, tabletop, steam, semi-automatic, 230V, 50 Hz, 134 °C, 6-15 ltr	1		●	
2	Disinfector, boiling water type, electric, S/S, 5-10 L	1			●
C. Equipment, medical, surgical instruments					
1	Instrument set, dressing	2	●		
2	Instrument set, ENT, casualty	2	●		
3	Instrument set, stitch removing	2	●		
4	Instrument set, suture	2	●		
D. Furniture, medical					
1	Cupboard, instrument	2		●	
2	Drip, stand	4		●	
3	Screen, four-fold	4		●	

4	Bowl, stand, kickabout	5				●
5	Stool, surgeon's, adjustable height	3	●			
6	Stretcher, collapsible	3	●			
7	Trolley, dressing	2	●			
E. Hollow ware/containers						
1	Dust bin, S/S, pedal, 15 L	1				●
2	Tray, instruments, S/S, 3 sets of 3 sizes	2		●		

Area: Outpatient Department, Family Planning (MCH)

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical and surgical instruments					
1	Instrument set, insertion/removal, IUCD	2	●		
2	Sphygmomanometer; aneroid type	5	●		
3	Norplant set	2	●		
4	Diagnostic Set	2	●		
5	Forceps, sponge, holding	2	●		
6	Gallipots; reusable, polypropylene or S/S; autoclavable up to 135 °C	5	●		
7	Drum, sterilizing, small and medium	2	●		
8	Forceps, curved artery, small	2	●		
9	Forceps, straight, artery, small and large	2	●		
10	Bowl, medium size	2		●	
11	Receiver, medium size	2		●	
12	Tray, S/S	2		●	
13	Forceps, Cheatle, S/S	2	●		
14	Holder, Cheatle; S/S or hard plastic	2		●	
15	Scissors, curved and straight, S/S	4	●		
16	Tubal ligation and vasectomy sets	2	●		
17	Speculum, small; S/S	2	●		
18	Stethoscope, Littman type	2	●		
19	Foetal, monaural	2	●		
20	Pinard, plastic	2		●	
21	Scope, vaginal and foetal	2			●
B. Equipment; medical					
1	Weighing scale, bathroom type, metric, 125kg x 500g	2	●		
2	Light, examining, floor standing, articulated, LED, 230 V, 50 Hz	2	●		
C. Furniture, medical					
1	Examination couch, local, with stirrups; steel, with polyurethane covered-mattress, adjustable	2	●		
2	Stool, s/s; adjustable height	2	●		
3	Screen, four-fold, with anti-static castors	4		●	
D. Furniture, office					

1	Chair, arm, plastic; monoblock	2		●	
2	Desk, wood, with 2 x drawers 1600x750 mm	1		●	
3	Chair, armchair office, with backrest; adjustable height	1		●	
4	Shelves, customised	2			●
E. Hollow-ware / containers					
1	Dustbin	1			●
2	Hollow ware set, laboratory	1		●	
F. Equipment, glassware					
1	Glassware set, laboratory, EAU	1	●		
G. Equipment, medical, laboratory					
1	Centrifuge, electric, 4-8 buckets, with graduated tubes	2	●		
2	Hemoglobinometer; Hemocue type. +301 with micro cuvettes	2	●		
3	Glucometer, Hemocue type, +201 with microcuvettes	2	●		
4	Rack, staining for 25 slides	2		●	
5	Slide holder, microscope	1		●	
6	Forceps, steel	2	●		
7	Rack, S/S, 12-hole	2		●	
8	Refrigerator, 12 cu. Ft	1		●	
9	Microscope, clinical; binocular; 4 x objectives	1	●		
10	Water Bath; electric, 230 V, 50 Hz	1			
H. Equipment, medical, sterilization					
1	Sterilizing unit, steam, double rack, electric, semi-auto, high-speed	1		●	
I. Furniture, medical					
1	Hand washing, water container with a tap, on a stand, with basin	1		●	

Area: Outpatient Department Laboratory

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, glassware					
1	Glassware set, laboratory	1	●		
B. Equipment, medical, laboratory					
1	Centrifuge, electric, 8-bucket,	2	●		
2	Haemoglobinometer, Hemocue +301 type with micro cuvettes	2	●		
3	Timer, interval, digital, battery operated, 60 min x 1 min, with signal	1		●	
4	Glucometer; Hemocue +201 type; with micro cuvettes	2	●		
6	Rack, staining, microscope slide staining for 25 slides	2			

7	Microscope slide holder	1							
8	Stainless Steel test-tube Forceps	2							
9	Rack, test tube, metal, 12-tube	2							
10	Refrigerator; solar; electrical	1							
11	Spirit Burner/lamp	1							
C. Equipment, medical, sterilization									
1	Sterilizing unit, steam, pressure cooker type, double rack, fuel heated	1							
E. Furniture, medical									
1	Water container with tap, on a stand, Capacity of container 20 Litre, with basin	1							
F. Furniture, office									
1	Chair, arm, plastic; monoblock	2							
2	Cupboard, high, metal with glass and lock and key	2							
3	Shelves, wood; customised	2							
4	Desk, wood, with 2 x drawers 1600x750 mm	1							
5	Stool, s/s; adjustable height	4							
G. Hollow-ware / containers									
1	Dustbin	1							
2	Hollow ware set, laboratory	1							

Area: Outpatient Department, Store/ Expanded Program for Immunization

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, refrigeration					
1	Cold box, insulated, vaccine storage, 27 ltr	2			
2	Refrigerator, electrical/solar	2			
3	Vaccine carrier; 3 L. 4 icepacks	2			
B. Furniture, office					
1	Cupboard, high, metal with glass and lock and key	2			
2	Shelves, aluminium; customised	2			
3	Desk, wood, with 2 x drawers 1600x750 mm	1			
4	Chair, arm, plastic; monoblock	4			
C. Sundries, domestic					
1	Cleaning utensils, set	1			
	Sponges and scourers				
	Yellow dusters/microfibre cloths				
	Glass polishing cloths				

	Cleaning brushes			●	
	Mop and bucket			●	
	Dustpan and brush			●	
	Protective gloves			●	
	Plastic caddy to carry the essentials				

Area: Outpatient Department, Treatment Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, domestic, kitchen					
1	Stove, LPG, 1.2 ltr; single burner; wick type, with 3 spares; 4-6 L tank capacity; up to 8 kg weight; adjustable thermostat	1			●
2	Kettle, boiling water, 2 L	1		●	
B. Equipment, medical					
1	Oxygen Concentrator; 10 LPM with accessories and spare parts; 230 V, 50 Hz	10	●		
2	Light, examining, floor standing, articulated, LED, 230 V, 50 Hz	2	●		
3	Suction machine, 1-jar with accessories and spares (Electrical)	2		●	
C. Equipment, medical, sterilization					
1	Sterilizing unit, steam, vacuum, vertical, automatic, medium, 39 ltr	1	●		
D. Equipment, medical instruments					
1	Diagnostic equipment set	2	●		
2	Instrument set, dental, tooth extraction, basic	2	●		
3	Instrument set, dressing	2	●		
4	Instrument set, foreign body removal	2	●		
5	Instrument set, incision and drainage of abscess	2	●		
6	Instrument set, stitch removing	2	●		
7	Instrument set, suture	2	●		
8	MVA	2	●	●	
9	Cheatle forceps in a container	2		●	
10	Drum, sterilization, medium	2		●	
11	Drum, sterilization, small	2		●	
E. Furniture, medical					
1	Drip stand, double hook, adjustable height, on castors	8		●	
2	Screen, four-fold, on castors	4	●		
3	Stand, bowl, kick-about; Made from 18/10 stainless steel. Mounted on 4 casters ý 40 mm.	5		●	
4	Stretcher, collapsible; Foldable emergency stretcher, made in anti-corrosive, anodised aluminium with PVC-coated	3	●		

	polyester sheet of 1 mm thickness. For a maximum patient weight of 130 kg. Fire retardant, foldable over width, approximately size (in open position): 2100 (l) x 500 (w) x 140 (h)mm				
5	Water container with tap, on a stand, Capacity of container 20 L, with basin	1			
6	Trolley, instrument, with shelves, s/s, large, 900 (l) x 600 (w) x 800 (h) mm. 600L x 450W x 800H mm; Tubular or rectangular frame with 2 fixed S/S shelves, 150 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Size: approximately 900 (l) x 600 (w) x 800 (h) mm	2		●	
7	Operating Table, gynaecological and surgical; mechanical; hydraulic; manual motion; mattress 2 inches; adjustment, length of tabletop: 204 cm, width of tabletop: 52 cm.; Safe Operating Load including mattress and accessories): 180 kg; weight: approximately 150 kg; Patient Straps: 2; Foot and hand Control: Activates all motion	2	●		
8	Wheelchair, adult; 4 wheels (2 rear wheels and 2 front swivel castors, Seat and backrest providing sitting support for the wheelchair user, Foot supports, Armrests, Rear wheel locks (to park the wheelchair); Folding frame, Push handles Integrated seat and backrest upholstery, Preset tilt Head support, Wheels and Castors Two (2) larger rear wheels of 12" or greater Single (12" or greater) or dual (7" or greater) front castors COG frame adjustments	5	●		
F. Furniture, office					
1	Cupboard, high, metal with glass and lock and key	2		●	
2	Stool, s/s; adjustable height	2	●		
G. Hollow-ware/containers					
1	Box, instruments, s/s, w/knobbed cover, 300x200x50 mm	1	●		
2	Container, for sharps, for approximately 250 needles	2			●
3	Dustbin	1			●
4	Hollow ware, set, treatment room	2		●	
5	Tray, instrument, set of 3 sizes, covered, s/s, 305 x 254 x 51mm	2		●	

**Department: Maternity**

Area: Ward, Maternity, Nurse Duty Station

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, domestic					
1	Fan; electric, 16 inches blade, 230 V; 50 Hz	5		●	
2	Lamp, table; emergency; LED; rechargeable	2	●		

B.	Equipment, medical instruments				
1	Instrument set, stitch removing	2	●		
2	Volumetric pump,(Infusion pump) 230V 50Hz/9-12V DC; with accessories and supplies				
				●	
C.	Furniture, medical				
1	Cupboard, high, metal with glass and lock and key; dangerous drugs	2	●		
2	Volumetric Pump (infusion Pump); 230V 50 Hz/9-12 V DC; with accessories and supplies(x)	3			●
3	Hand washing; water container with a tap, on a stand; 20 L, with basin	1			
D.	Furniture, office				
1	Dust bin	1			●
2	Bench, PVC, small; 4 seats; plastic	1		●	
3	Chair, armchair office, with backrest; adjustable height	1	●		
4	Chair, arm, plastic; monoblock	4	●		
5	Desk, wood, with 2 x drawers 1600x750 mm	1		●	
E.	Hollowware/containers				
1	Container, for sharps, for 250 needles/blades approximately, plastic/carton; round or rectangular-shaped opening	2			●

Area: Sluice Room; Ward, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, medical				
1	Trolley, distribution, laundry, with rails & shelves, Tubular or rectangular frame with three fixed S/S shelves, 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1.5 mm thickness. Steel tubing frame with epoxy coating finish, with three fixed S/S shelves, swivel castors. Diameter castors 200 mm Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	2	●		
2	Trolley, soiled linen, double bag; Tubular or rectangular frame on 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of chromium-plated or S/S. Thickness of tubing 2 mm. Provision to hang 2 removable collection bags of 450 mm diameter, Collection bags of linen canvas. With one spare bag. Size: approximately 900 (l) x 450 (w) x 950 (h) mm.	2		●	
B.	Hollowware/containers				
1	Dustbin	2			●



C.	Sundries, domestic				
	Cleaning utensils, set	1		●	
	Sponges and scourers				
	Yellow dusters/microfibre cloths				
	Glass polishing cloths				
	Cleaning brushes				
	Mop and bucket				
	Dustpan and brush				
	Protective gloves				
	Plastic caddy to carry the essentials				
2	Laundry/linen bag	1		●	

Area: Store, Ward, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Shelves, wood; customised	1			●
2	Ladder, 3-4 steps, aluminium; single	1	●		
3	Racks, storage, set	2		●	

Area: First Stage Labour, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Detector, foetal heart, ultrasonic, portable, Doppler	2	●		
2	Stethoscope, foetal monaural, Pinard, plastic	5	●		
3	Weighing scale, adult, bathroom type, digital, kg/lbs. up to 150 kg/300 lbs, 0.5 kg/1 lbs graduation	2	●		
4	Oxygen Concentrator, 10 LPM	5	●		
5	Cylinder, 40 L, oxygen, complete with a regulator, flow meter and humidifier	4	●		
6	Stool	2		●	
7	Hand washing, bucket, 20 L, with a tap, stand and basin	2		●	
8	Sphygmomanometer, aneroid, portable and on castor	5	●	●	
9	Thermometer, digital, non-mercury	5		●	
B.	Equipment, medical, surgical instruments				
1	Diagnostic set	2	●		
C.	Furniture, medical				
1	Drip stand, double hook	4		●	
2	Hospital bed, adult	10	●	●	

3	Mattress for hospital bed, adult, washable, 4 inches thick, polyurethane material	10			

Area: Midwife office, Maternity

Nr.	ITEM/DESCRIPTION	QT Y	PRIORITY		
			H	M	L
1	Dustbin with cover	1			●
2	Chair, office, seat, arm and backrest cushion, on castors	1		●	
3	Chair, stackable, metal, with backrest, and cushion, seat, and backrest	3		●	
4	Cupboard	2		●	
5	Desk, wood, with drawers	1		●	
6	Kettle, boiling, 2 L	2		●	

Area: Delivery Room, Ward, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, domestic					
1	Lamp, LED; rechargeable; solar	2		●	
2	AC, split type; 230V, 50 Hz, 1KW	1		●	
B. Equipment, domestic, kitchen					
1	Stove, LPG, 1.2 L; single burner; wick type, with 3 spares; 4-6 L tank capacity; up to 8 kg weight;	1			●
C. Equipment, domestic, lighting					
1	Light, emergency, solar, rechargeable	1			●
D. Equipment, medical					
1	Delivery bed; three-sectioned impervious covered, 100m deep anti-static mattress. Frame made of tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2mm thickness. Frame to be made of mild steel with an epoxy coating or stainless steel. Square section ends to be fitted with rubber or plastic bungs. Trendelenberg and sitting position achievable. Mattress section to be removable; adjustable bracket to rise to approximately 70°. Accessories include detachable side rails, lock-in lithotomy poles with straps, a deep S/S swab receptacle on a sliding bracket and an IV pole. Approximate size 1900(l) x 800(w) x 800(h) mm, width not < 800 mm	10	●		

2	Weighing scale, baby, basin type, 10 kg, 10 grams scale; digital; battery and power adaptor supply	4		●	
3	Suction machine, manual; 1-jar with accessories and spares	2	●		
4	Suction machine, electric; 2-jar with accessories and spares	2			
5	Vacuum extractor; with the case, S/S, Bird's modification of Maelstrom	2		●	
6	Light, operating, mobile, LED, 60-80 K Lux at a distance 1 meter from the light source; luminance field adjustable, 15-25 cm	2	●		
7	Resuscitation Table with warmer; 230 V, 50 Hz	5	●		
8	Detector, foetal heart, ultrasonic, portable, Doppler	5	●		
9	Wheelchair, adult	5	●		
10	Stretcher, collapsible	5	●		
11	Weighing scale for placenta, digital, 0-5 kg, battery operated/power adaptor, 230 V, 50 H/ 9-12 V DC	1	●		
12	Delivery packs/set consisting of 2 small and large kidney dishes each, episiotomy scissors, stitch scissor, 2 cord clamps, dissecting forceps and needle holder	2		●	
E. Equipment, medical, anaesthesia					
1	Resuscitator, manual (Ambu bag), infants with masks in various sizes	2	●		
2	Oxygen Concentrator; 230 V, 50 Hz; 10 LPM, with spares and accessories	2	●		
3	Cylinder, 40 L, oxygen, with pressure regulator, flow meter, 0-10 LPM and humidifier bottle	4	●		
4	Oxygen sockets; 4 Bar, with flow meter 0-10 LPM and humidifier bottle	10		●	
5	Suction machine; 2-jar, 2.5 L, electric, 230 V, 50 Hz, mobile	2		●	
6	Suction machine; 1-jar, 2.5 L, manual, 230 V, portable	1			●
F. Equipment, medical, sterilization					
1	Sterilizing unit, steam, pressure cooker type, double rack, fire-heated; non-vacuum	1	●		
2	Autoclave, table-top type, steam; semi-auto; high speed; 4-10 minutes; 134 °C max temperature, Class III, timer 0-60 minutes; sterilizing plate 3 pieces; 5L; CE, ISO13485	2	●		
G. Equipment, medical instruments and surgical					
1	Diagnostic equipment set	2	●		
2	Instrument set, delivery and suturing	2	●		
3	Instrument set, episiotomy and tears, extra	2	●		
4	Instrument set, dressing	2	●		
5	Needle holders	2		●	
6	Dissecting forceps	2	●		
7	Cord clamps	2		●	
H. Equipment, office					

1	Clock, wall type, digital, battery-operated, with Temperature C/F, % RH, Alarm, day/date, luminous, even daytime	1				●
I. Furniture, medical						
1	Cot, baby (bassinet) with mattress with cleanable cover and trolley; plexiglass bed; epoxy-coated steel tube or electrostatic powder-coated metal frame, 4-wheel castor with brakes	5				●
2	Drip stand, double hook, adjustable height, on castors	5				
3	Screen, four-fold, on anti-static castors	4				●
4	Stool, surgeon's, adjustable height, S/S	2				●
5	Trolley, instrument, with s/s shelves, anti-static 150 mm swivel castors, Tubular or rectangular frame with two fixed S/S shelves. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	2				●
6	Water container with tap, on a stand, capacity of container 20 L, with basin	1				●
J. Furniture, office						
1	Cupboard, high, metal with glass and lock and key	1				●
2	Chair, stackable, with backrest, metal frame, cushion seat and backrest	4		●		
K. Hollowware/containers						
1	Container, for sharps, for 250 needles/blades approximately, plastic/carton; round or rectangular-shaped opening	2		●		
2	Dustbin	1				●
3	Hollow ware, set, delivery room	2				●

Area: Holding Room (Antenatal Room), Wards, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, medical					
1	Bedside locker/table; wood, with lock and key drawer; Formica-covered top; open cabinet	10	●		
2	Drip stand, double hook, adjustable height, on anti-static castors	5		●	
3	Hospital bed, adult; 2000 (l) x 900 (w) x 600 (h) mm. With backrest adjustable up to 30° in 3 steps of approximately 10°; Mesh size and bed reinforcement to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm. Bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. Square section ends to be fitted with rubber or plastic bungs. The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively. Epoxy finish. Collapsible slide rail with spring hook security system; with washable covered- mattress; 4-inch thick	10		●	

B.	Hollowware/containers				
1	Dustbin	1			●
2	Hollow ware set for duty station	2		●	
C.	Textile, domestic				
1	Bed net, mosquito, single bed; white polyester material; 65% cotton	10		●	

Area: Manual Vacuum Aspirator Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, medical				
1	Lamp/light, angle poised	2		●	
2	Trolley, instruments	2		●	
3	Trolley, medicine/drugs; Tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm. With push handle and lockable drawer fixed underneath the top shelf. Size of drawer approximately 250 (w) x 250 (h) x 450 (d). mm. All S/S sheet metal of 1,5 mm thickness.	2		●	
4	Stool, surgeon's, adjustable height	2	●		
5	Examining couch, with stirrups; 2 section (knock-down construction): 1800 mm (l) x 750 mm (w) x 760 mm (h). Folding table with top in two sections. Drop leaf section (headpiece) 490 mm (l) x 750 mm (w). Removable and adjustable by ratchet type frame. Frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2 mm thickness. With crossbars for stability. Square section ends to be fitted with rubber or plastic bungs. Sheet metal parts minimum 1.5 mm thickness.	2	●		
6	Bin, pedal	2		●	
7	Cupboard	2	●		
8	Sphygmomanometer, aneroid, portable and mobile on castors	5			●
9	Thermometer, digital, clinical	5		●	
10	Drip stand, double hook	5		●	
11	Infusion pumps	5		●	
12	Suction machine, electric and manual	2	●	●	
13	Pulse oximeter, hand-held, for spot check	5	●		
14	Pulse oximeter, monitoring	2	●		
B.	Equipment, medical instruments				
1	MVA sets	2	●		
C	Hollow ware/containers				
1	Instrument tray	2		●	

2	Instrument sets	2	●		
	Large kidney dish				
	Vaginal speculum;				
	Bilabial (Cuscus) and Sims				
	Auvard speculum				
	Galipot				
	Vulsellum forceps				
	Cheatles forceps				
	Forceps holder				

Area: Wards, Maternity

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
<b>A. Furniture, medical</b>					
1	Bedside locker/table; wood, with lock and key drawer; Formica-covered top; open cabinet	10	●		
2	Drip stand, double hook, adjustable height, anti-static castors; Height adjustable 1200-2200 mm, wide stance base with castors. Double hook rod includes a positive stop to avoid disengagement from the base rod. With metallic adjustable locking device. Epoxy finish. Double hook and rod made of chrome plated metal or stainless steel.	5		●	
3	Hospital bed, adult (same specs)	10	●		
4	Screen, four-fold, on castors	4	●		
5	Water container with tap, on a stand, capacity of container 20 L, with basin	1		●	
6.	Oxygen Concentrator, 10 LPM with accessories and spares	5	●		
7	Cylinder, 40 L, oxygen, complete with a regulator, flow meter (10 LPM) and humidifier	4	●		
8	Oxygen sockets, with flow meter (10 LPM) and humidifier	5		●	
9	Pulse Oximeter, spot check with RR; hand held	2	●		
<b>B. Furniture, office</b>					
1	Chair, stackable, with backrest, metal frame, cushion seat and backrest	4			●
<b>C. Hollowware/containers</b>					
1	Basin, wash, plastic, 400 mm diameter	2			●
2	Dustbin	1		●	
<b>D. Textile, domestic</b>					
1	Bed net, mosquito, single bed; white; polyester materials, 65% cotton	10		●	

Area: Special Baby Care Unit; Inborn and Outborn Units

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Infant incubators	4	●		
2	Radiant warmer with Resuscitation Table	2	●		
3	Infant Radiant warmer	4	●		
4	Pulse oximeter, portable, w/access	5	●		
5	Phototherapy lamp with stand	5	●		
6	Syringe pump, with accessories	2	●		
7	Oxygen Concentrators with flow splitter	5	●		
8	Pump, suction, surgical,1 bottle, w/access	2	●		
9	Scale, baby, electronic, 10kg, min grad 5g	2	●		
10	Infusion pumps	5	●		
11	B-CPAP	2	●		
12	Resuscitator (Ambu-bag); manual	5	●		
13	Patient Monitor; Multi parameter with sensors/probes	4	●		
14	Thermometer, clinical, digital	10		●	
15	Pump, breast, manual, w/access	5		●	
16	Oxygen sockets, with flow meter (10 LPM) and humidifier	5		●	
B. Furniture, medical					
1	Cot, baby, hospital, w/bassinets, on castors	10	●		
2	Cupboard, Cabinet, instruments, double door	2	●		
3	Cupboard, Cabinet, medicine, double door	2	●		
C. Equipment, medical, laboratory					
1	Glucometer, Hemocue 201 and Microcuvette, 201+/BOX-100 (glucose strip)	2		●	
2	Hemoglobinometer, HemoCue Hb 301+/SET with micro cuvettes	2		●	
D. Equipment, office					
1	Stand Fan electrical, 16 inches blade, 230 V, 50 Hz	2			●
2	Wall clock with room thermometer, %RH, day/date (digital)	1			●
3	Extension cables, 13 A, 5 sockets	2			●
4	Voltage regulator; 195-250 V/230 V, 5 KW	2			●
5	Laptop, ThinkPad, T460s (UNICEF IMAGE is not required)	1			●
6	AC; Split type; 2 KW, 230 V, 50 Hz, Inverter	1		●	
E. Equipment, medical, sterilization					
1	Sterilizer (Autoclave); , Electric Sterilizer table top, semi-auto, high-speed	1		●	

Area: Sluice Room, ward

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Racks, storage, metal, SS set	1		●	
2	Shelves, wood, customized, fabricated	1			●
3	Bin, auto, with wheels	1	●		
4	Trolley, laundry with rails and shelves; Tubular or rectangular frame with three fixed S/S shelves, 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of S/S. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Steel tubing frame with epoxy coating finish, with three fixed S/S shelves, swivel castors. Diameter castors 200 mm Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	2		●	

Area: Ward, Regular/Standard; for Female and Male and Paediatrics

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Suction machine, electric and manual	5	●		
2	Resuscitator, manual	5	●		
3	Nebulizer; 230 V, 50 Hz, Ultrasonic frequency: at least 1.7 MHz + 10%, Mist particle: approximately 1- 5 microns, Nebulizing volume: approximately 1-5 ml/min + 10%, Bacteria filter: filtered down to 0.3-micron bacteria, Water level alarm: automatically nebulization stop and warning light in case of water level decreasing in the reservoir, Floor stand or with stand: stainless steel or PVC powder coated, 5-wheels roller-stand, Power supply: 220 - 240 V + 10%, 50 Hz	5	●		
4	Oxygen Concentrator; 10 LPM, complete with accessories and spares	5	●		
5	Cylinder, 40 L, oxygen, complete with a regulator, flow meter, 10 LPM and humidifier	4	●		
6	Infusion pumps; 230 V/power adaptors 9-12 V DC	5	●		
7	Light, examination, LED, 230 V, 50 Hz	2	●		
8	Hand washing, with stand, bucket 20 L with tap and basin	1			●
B. Equipment, medical, sterilization					
1	Disinfectant, boiling water type, S/S, approximately 510 x 310 x 140 mm	1			●
2	Sterilizer, steam, high-speed, tabletop, semi-automatic, 6-15 L, 230 V, 50 Hz	1		●	
C. Equipment, medical, surgical instruments					
1	Diagnostic equipment set	2	●		





2	Instrument set, dressing	2	●		
3	Instrument set, IV cut-down	2			
4	Instrument set, stitch removing	2			
5	Instrument set, suture	2	●		
D. Furniture, medical					
1	Bedside table, drawer, cabinet with lock and key	20		●	
2	Drip stand, double hook	5		●	
3	Hospital bed, adult; two sections, measuring 2000 (l) x 900 (w) x 600 (h) mm. With a backrest adjustable up to 30° in 3 steps of approximately 10°. Mesh size and reinforcement of bed to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm. Bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. Square section ends to be fitted with rubber or plastic bungs. The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively—epoxy finish.	20	●		
4	Hospital bed, child, with sliding side rails, measuring 650 (w) x 1400 (l) mm; 1000 mm high. With removable and adjustable (5-90°) backrest/board, footboard, and steel tubing vertically adjustable/sliding side rails with safety lock. Steel tubing frame, mattress support made of weld mesh, with one intermediate tubing support, suitable to fit up to 150 mm thick mattress. Epoxy coating or Chrome plated steel finish	20	●		
5	Cradle, bumpers for paediatrics ward	20		●	
6	Mattress for hospital bed adult; Length and width to match the bed size of the hospital bed, adult. Thickness 12,5cm Mattress should have a waterproof, urine-proof cover—high-density foam filling; minimum density of 30kg/m <sup>3</sup> .	20		●	
7	Mattress for hospital bed, child; Length and width to match the bed size of a hospital bed for children. Thickness 125 mm Mattress should have a waterproof, urine-proof cover. High-density foam filling; minimum density of 30kg/m <sup>3</sup> .	20		●	
8	Screen, four-fold, on castors	5		●	
9	Bowl, stand, kick about, S/S	5			●
10	Trolley, dressing; tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm.	2		●	
11	Wheelchair, adult	5		●	
12	Stretcher, collapsible	5		●	
D. Equipment, Domestic, kitchen					
1	Kettle, water boiling, 2 L	1			●
2	Basin, plastic	2			●
E. Furniture, medical					
1	Cupboard, instruments	2		●	

2	Cupboard drug/medicines	2			
F	Equipment, domestic				
1	Fan, Electric, stand, 16 inches blade, 230 V, 50 Hz	4			●
2	Light, emergency, LED, rechargeable	5	●		

Area: Intensive Care Unit/ Isolation Ward/High-dependency Unit/Endoscopy Unit

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Suction machine, electric and manual	5			●
2	Resuscitator, manual; adult and Paeds	5	●		
3	Nebulizer; 230 V, 50 Hz	5	●		
4	Oxygen Concentrator; 10 LPM, complete with accessories and spares	5	●		
5	Cylinder, 40 L, oxygen, complete with a regulator, flow meter, 10 LPM and humidifier	5	●		
5a	Oxygen, medical, piped, sockets with flow meter, 10 LPM and humidifier (manifold or direct from oxygen plant)	5		●	
6	Infusion pumps; 230 V/power adaptors 9-12 V DC	10	●		
7	Light, examination, LED, 230 V, 50 Hz	2	●		
8	Hand washing, with stand, bucket 20 L with tap and basin	1		●	
9	Ventilator, mechanical/electronic, SIMV, pressure, volume and time-cycled; adult/pediatric, in castors/mobile, built-in compressors, Breathing frequency: 5 - 40 times/min, Trigger sensitivity: -0.5 - 5 cm H <sub>2</sub> O, PEEP/CPAP: 0 - 20 cm H <sub>2</sub> O, I/E ratio: 1/3 - 3/1; Ventilators status displayed: pressure, breathing timing, volume, PEEP, trigger sensitivity, alarm setting, respiratory rate, tidal volume, % oxygen, peak flow, battery level and others, Power supply: 220 - 240 V + 10%, 50 Hz	10	●		
10	Monitor, multi-parameter, physiologic; Bedside monitor 3-lead ECG, Resp, IBP, NIBP, SpO <sub>2</sub> , Temp, EtCO <sub>2</sub> ; High-resolution colour display with a screen size of at least 12" diagonal, 24 Hours of trend data in 1-minute resolution for all monitored parameters to be displayed graphically or in tabular form, Audible and Visual alarms shall be available for all parameters monitored, and the upper and lower limits shall be user-adjustable, Monitor shall have battery operation of at least 1 hour, The monitor shall be able to be connected to a central monitoring network and shall be ready for clinical information and hospital information system interface, The monitor shall be suitable for use in CCU, ICU, Operating Theatre and able to monitor neonates, children and adults, Displayed parameters include: etCO <sub>2</sub> , iCO <sub>2</sub> & respiration rate	10	●		
11	ECG; 3-6 channel, 12 leads; standard; Sensitivity: 10 and 20 mm/mV, Record format: 3 channels auto, manual, Record	5	●		

	device: thermal array printer, Paper speed: approximately 25 and 50mm/s, Power supply: 220 – 240 V + 10%/ 50 Hz and battery 12V, internal charger unit, Display: large-sized LCD,				
12	Defibrillator, synchronized ECG; ECG cable: 5 leads, Output energy: approximately 2 - 360 joules, Charging switch: on paddles or keyboard, Charging time: < 10 s at 360 J, Charging indication: acoustical and optical, Output waveform: single phase pulse, Monitor: ECG waveform, SpO2, NIPPB, Temperature, LCD screen, Speed: 25 and 50 mm/sec or similar, Recorder: paper speed: approximately 25 mm/s, Power supply: 220 - 240 V + 10%, 50 Hz, Internal rechargeable battery: operating time:> 4 hours under nominal conditions	2			
13	Capnograph	2	●		
14	CPAP machines (adult and paed)	5	●		
15	ABG Analyzer	1	●		
16	X-ray, DR, Mobile, battery operated	1	●		
17	Stethoscope, binaural	5	●		
18	Thermometer, IR, digital	10			●
19	Lactate Monitor	2		●	
20	Oxygen sockets with flow meter	10	●		
21	Endoscopy Set	1	●		
22	Esophageal Variceal band Ligator	1	●		
23	Balloon dilators	1	●		
24	Biopsy forceps: Endo Jaw 2.8mm, Endo Jaw Jumbo 3.7mm, Endo Jaw hot	1	●		
25	Grasping forceps	1	●		
26	Polypectomy, EMR& ESR, EMR kit, Snare master, Dual Knife J, Hook Knife	1	●		
27	Cleaning brushes, lubricant gel, mouthpieces, biopsy valves	2	●		
28	Portable Ultrasound	1		●	
B.	Equipment, medical, sterilization				
1	Disinfectant, boiling water type, S/S, approximately 510 x 310 x 140 mm	1	●		
2	Sterilizer, steam, high-speed, tabletop, semi-automatic, 6-15 L, 230 V, 50 Hz	2		●	
C.	Equipment, medical, surgical instruments				
1	Diagnostic equipment set	2	●		
2	Instrument set, dressing	2	●		
3	Instrument set, IV cut-down	2	●		
4	Instrument set, stitch removing	2	●		
5	Instrument set, suture	2	●		
D.	Furniture, medical				
1	Bedside table, drawer, cabinet with lock and key	10		●	
2	Drip stand, double hook	5	●		

3	Hospital/ICU bed, adult; two sections, measuring 2000 (l) x 900 (w) x 600 (h) mm. With a backrest adjustable up to 30° in 3 steps of approximately 10°. Mesh size and reinforcement of bed to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm. Bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. Square section ends to be fitted with rubber or plastic bungs. The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively, epoxy finish.	10			
4	Hospital bed, child, with sliding side rails, measuring 650 (w) x 1400 (l) mm; 1000 mm high. With removable and adjustable (5-90°) backrest/board, footboard, and steel tubing vertically adjustable/sliding side rails with safety lock. Steel tubing frame, mattress support made of weld mesh, with one intermediate tubing support, suitable to fit up to 150 mm thick mattress. Epoxy coating or Chrome plated steel finish	10	●		
5	Mattress for hospital bed adult; Length and width to match the bed size of the hospital bed for adults. Thickness 12,5cm Mattress should have a waterproof, urine-proof cover—high-density foam filling; minimum density of 30kg/m3.	10			
6	Mattress for hospital bed, child; Length and width to match the bed size of the hospital bed for children. Thickness 125 mm Mattress should have a waterproof, urine-proof cover. High-density foam filling; minimum density of 30kg/m3.	10		●	
7	Screen, four-fold, on castors	5		●	
8	Bowl, stand, kick about, S/S	5			●
9	Trolley, dressing; tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm.	2		●	
10	Wheelchair, adult	2		●	
11	Stretcher, collapsible	2		●	
12	Urinal, stainless steel	10			
13	Bedpan, stainless steel	10		●	
14	Recliner chair, commode	5		●	
D. Equipment, Domestic, kitchen					
1	Kettle, water boiling, 2 L	1			●
2	Basin, plastic	5			●
E. Furniture, medical					
1	Cupboard, instruments	2		●	
2	Cupboard drug/medicines	2		●	
F. Equipment, domestic, office; power supply					
1	Fan, Electric, stand, 16 inches blade, 230 V, 50 Hz	4		●	
2	Light, emergency, LED, rechargeable	2	●		

3	AC unit; 230 V, 50 Hz, 1 KW	3	●		
4	Desktop computer; with UPS	1			
5	Emergency power source; Solar/UPS; 10 KW	1		●	
6	Voltage stabilizer; 5 KW, 190-250 V, 50 Hz	3		●	

**Department: Laboratory**

Area: Counter/Reception

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Basket, waste, paper	2			●
2	Stool, with backrest; wood, seat and backrest with cushion; with footrest; Stainless steel; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm. On 5 anti-static swivel castors	5		●	
3	Bin, waste; non-biodegradable	1			●

Area: Main Laboratory

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, domestic				
1	Thermometer; wall mounted, digital; room temperature; °C/°F; battery operated; day/date, % RH	1		●	
B.	Equipment, domestic, kitchen				
1	Hot plate; heating plate size: 250 x 300mm; mild steel sheet powder coated body, heating element placed underneath, insulated; up to 150 °C, power regulator controller	1		●	
C.	Equipment, glassware				
1	Glassware/plastic ware, set, laboratory	1	●		
2	Level Pipetter, volumetric, graduated (2, 10, 20ul)	1		●	
3	Hot air, electric oven, 40 L (glass drying cabinet)	1	●		
4	Sphygmomanometer; digital	2		●	
5	Stethoscope	2		●	
D.	Equipment, medical, laboratory				
1	Balance, laboratory, single pan, 2500 g / 0.1 g	1	●		
2	Balance, laboratory, single pan, precision, 300g/0.01g	1	●		
3	Burner, Bunsen	1		●	
4	Centrifuge, bench type, electric, 12-placer; 230 V, 50 Hz	1	●		

5	Centrifuge, haematocrit, electric, with a reader	1	●		
6	Colourimeter, with concentration reading	1			
7	Counter, differential, mechanical, 8-keys	1	●		
8	Counting chamber, Fuchs-Rosenthal ruling	1	●		
9	Counting chamber, Neubauer ruling, improved	1	●		
10	Distilling unit, electric, 4 L/h	1		●	
11	ESR apparatus, Westergren, stand & pipettes	1			
12	Haemoglobinometer, Hemocue +301 type; with micro cuvettes	1	●		
13	Microscope, laboratory, binocular, moving mechanical stage, objectives: 10x, 40x, 100x; ocular: 10x; electric	2	●		
14	Pipette, volumetric, micro, set	2	●		
15	Shaker, VDRL, rotator variable, electric, VDRL tests	1		●	
16	Tally counter	1		●	
17	Timer, interval, digital, 60 minx1min, with signal, spring-wound	1		●	
18	Urinometer, specific gravity, with test glass	1		●	
19	Water bath, with thermostat, 10 L	1		●	
20	Haematology analyzer 12 parameters; with printer and keyboard	1	●		
21	Microscope, binocular, fluorescence CD4 Counter	2	●		
22	Viral load equipment	1			
23	Biosafety cabinet, class 1	2	●		
24	Incubator 40 ltr, temperature range 10-100c	1	●		
25	Mixer, vortex, mechanical; 0-3,000 rpm; continuous or touch operating modes; 230 V, 50 Hz	1	●		
26	Mixer, blood sample	1		●	
27	Glucometer; Hemocue type +201 with microcuvette	2	●		
28	Slide Filling cabinet	1		●	
29	Slide drying Bench, electric; 230 V, 50 Hz	1		●	
30	Stirrer, magnetic, with a hot plate	2		●	
31	Analyser, blood (FBC Machine)	1	●		
32	Analyser, chemistry	1	●		
33	Balance, digital 0.2-600g	2		●	
34	Water bath; 10 L, 50 °C maximum temperature range, mechanical controller	1	●		
35	Measuring cylinder 100,200,500 and 1000 ml	1	●		
36	Conical flasks 100,200 ml	1	●		
37	Petri dishes ( in carton)	1		●	
38	Reaction tubes for biochemical analysis in boxes	1	●		
39	Media preparation bottles	1		●	
40	Reaction tubes for clotting time analysis inbox	1		●	
41	Plastic loops	1		●	
42	Incubator,, 18L,20LRT-65 °C – Bacteria, 120V/50Hz	1	●		
43	CO <sub>2</sub> Incubator 155000 - 2	1		●	
44	Inoculation Loop Wire & Holders 6" & 8"	1	●		
45	Drying Oven, thermostat controlled,	1	●		

46	Adjustable Volume Single channel Pipettes, 1000, 200, 100, 50, 20, 5µl	1	●		
47	Heating Block, magnetic, mixer, 300W, 220V	1	●		
48	Adjustable Multichannel Pipettor 12-Channel 0. 2-10 mL	1	●		
49	Autoclave 25 – 50L	1		●	
50	Bunsen Burner with Gas, Electric	1		●	
51	Hematology AutoAnalyzer, 5 Parts	1	●		
52	Biochemistry autoanalyzer, open system	1	●		
E. Equipment, medical, sterilization					
1	Sterilizing unit, dry heat, medium, 20 L	1	●		
2	Sterilizing unit, steam, non-vacuum, vertical, electric, medium, 39 L	1	●		
3	Instrument set, laboratory, basic	1	●		
F. Equipment, medical instruments					
1	Instrument set, laboratory, basic	1	●		
G. Equipment, office					
1	Clock, wall type, digital, battery-operated, with temperature C/F, % RH, Alarm, day/date, luminous, even daytime	1			●
2	Desktop computer set with printer; uninterrupted power supply; automatic voltage regulator	1		●	
3	Desk calculator	1			●
H. Equipment, refrigeration					
1	Refrigerator, electrical, compressor type, 220 L	1		●	
2	Refrigerator-freezer, electric/gas, absorption-cycle, 230ltr	1	●		
3	Thermometer, fridge-freezing equipment	1	●		
I. Furniture, medical					
1	Water container with tap, capacity of container 10-25 L, with basin	1		●	
J. Furniture, office					
1	Basket, waste, paper	1			●
2	Bench, metal/SS, 4 seats, plastic	1	●		
3	Chair, stackable, with backrest, metal frame, cushion seat and backrest	4		●	
4	Cupboard; lockable storage. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors.	1		●	
5	Stool; Stainless steel; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm, on 5 anti-static swivel castors.	5		●	

6	Office Desk; wood, with 2 x drawers 1600 x 750 mm; lockable	1	●		
7	Computer Desk; wood; with 2 x drawers, 1600 x 750 mm; lockable	1		●	
8	Filing cabinet, metal, 4 drawers; lockable	1		●	
K. Hollowware/containers					
1	Hollowware set, laboratory	1		●	
L. Tools, miscellaneous					
1	Stroboscope, handheld	1		●	

Area: Store, Laboratory

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Racks, storage, set; shelves, metal, angular-shaped bars with holes; adjustable shelves height	2		●	

Area: Blood Bank

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, refrigeration and medical					
1	Blood bank refrigerator with 24-hr recorder; thermostat control -2 °C to 6 °C; audio and visual temperature failure setting alarm; 230 V, 50 Hz, with AVR 169-250 V range, 1000 W, lockable; transparent door, with shelves and analogue thermometer reader, 12-16 cu. ft	1	●		
2	Water bath; 230 V, 50 Hz with AVR 500 W;	1	●		
3	Serology centrifuge; 230 V, 50 Hz, with AVR 500 W; 24-placer	1		●	
4	Deep Freezer; chest type, 2-door, transparent; lockable; 230 V, 50 Hz, with AVR 169-250 V range, 1000 W	1			
5	Cold chain boxes; 100 mm thick; 6-15 L capacity; CFC-free polyurethane insulation material, LLDPE material, with locks and ice packs, 0.4 L, HDPE material	2		●	
6	Thermometer, dial type, analogue, 2-3 diameter	2		●	
7	Binocular microscope, laboratory; 230 V, 50 Hz, with 4 objectives oil-immersed, 4x, 10x, 40x 100; mechanical stage, fine/course adjustment	12	●		
8	Racks, test tube holder, S/S with handle, 10 holes	1			●
9	Test tubes, EU standards or equivalent	10			●
B. Equipment, medical					
1	Weighing scale, adult, bathroom type, mechanical or digital, settable to Kg and Lbs.; 0-150 kgs; 0.5 kg/1 lbs. scale	1	●		



2	Blood grouping tiles	1		●	
3	Blood weighing scales	1		●	
C. Furniture, office					
1	Donor bleeding couch	2	●		
2	Chair	2		●	
3	Table	1		●	

Area: Treatment Room, Dental Department

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Light, examining, articulated, LED, floor standing on castor	1	●		
2	Suction machine, portable, 1-jar, electric, 230 V, 50 Hz, with vacuum pressure adjustment, complete with accessories and spares	1		●	
3	Sphygmomanometer, aneroid type, floor standing on castor	1		●	
B. Equipment, medical, anaesthesia and imaging x-ray					
1	Gags, mouth	2	●		
2	Panoramic, wall-mounted	1		●	
3	Film processor, tabletop, manual	1		●	
4	Film viewer	1		●	
5	View box	1		●	
6	X-ray hangers	1		●	
C. Equipment, medical, dental					
1	Dental chair, hydraulic, mechanical/electric	4	●		
2	Dental Unit; complete with cuspidor, air compressor, LED operating view light, air turbine and handpieces, suction unit and table mayo	4	●		
3	Amalgamator	1	●		
4	Ultrasonic scaler	1	●		
5	UV light, composite curing machine	1	●		
D. Equipment, medical, sterilization					
1	Sterilizing Unit, steam, vacuum, high-speed; tabletop, electric, medium, 39 L	2	●		
E. Equipment, medical, surgical instruments					
1	Instrument set, dental, hand	1	●		
2	ART instrument set (Atraumatic Restorative Treatment)	1	●		
3	Scissors, Mayo	1	●		
4	Forceps, wire	1	●		
5	Forceps, tissue holder	1	●		
6	Scalpel blades	1		●	
F. Furniture, medical					

1	Cupboard, instruments; Lockable storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors.	1		●	
2	Stool, surgeon; Stainless steel; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm. On 5 anti-static swivel castors	4		●	
3	Trolley, instruments; Tubular or rectangular frame with two fixed S/S shelves, 150 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Size: approximately 900 (l) x 600 (w) x 800 (h) mm.	1		●	
4	Desk	1		●	
5	Chair, stackable	4			●
6	Trolley, laundry; Tubular or rectangular frame on 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of chromium-plated or stainless steel. Thickness of tubing 2 mm. Provision to hang 2 removable collection bags of 450 mm diameter, Collection bags of linen canvas. With one spare bag. Size: approximately 900 (l) x 450 (w) x 950 (h) mm	1		●	
7	Trolley, dressing; Tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm. With push handle. All S/S sheet metal of 1,5 mm thickness. Complete with S/S bottle rack - rectangular, detachable waste bin attached underneath the top shelf. Capacity of waste bin approximately 4 L; S/S bowl of approximately 320 mm diameter; capacity approximately 4 L	1		●	
8	Cabinet, instrument	1	●		
G. Furniture, Office					
1	Chair	4		●	
2	Desk	2		●	
3	Cupboard	1		●	
4	Dust bin	1			
5	Hollow ware instrument	1		●	
6	Tray, instrument set of 3 sets cover, S/S, 305 x 254 x 51 mm	2		●	

**Department: Radiology**

Area: X-ray reception

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Bench				
2	Chair	4	●		
3	Desk	2	●		
4	Cabinet, filing	2	●		
5	Basket, waste, paper	2			●
6	Cupboard	2		●	
7	Stool	2		●	

Area: X-ray Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical, imaging x-ray				
1	Light, examination, table model, articulated	1			●
2	X-Ray unit, Mobile; HF, DR, Battery-powered	1	●		
3	X-ray Lead shields (in-built or mobile)	1	●		
4	CT scan, multiple-sliced (128 Slices)	12	●		
5	MRI	1	●		
6	Cath Lab	1	●		
7	C-arm x-ray; stationary	1	●		
8	AC, split type, 1.5 kW, 230 V, 50 Hz	4	●		
9	HSG kit	2	●		
B.	Equipment, Office				
1	Clock, wall-mounted (same specs)	1	●		
2	Desk-type computer; with printer, UPS and voltage stabilizer	1	●		
3	AC, split type, 1.5 kW, 230 V, 50 Hz	1		●	
C.	Furniture, medical				
1	Examination couch	2		●	
D.	Hollowware/containers				
1	Dust bin, pedal, S/S, 5 L	1		●	
2	Textile, clothing	1		●	
3	Apron, protective, x-ray, lead	2		●	

Area: Ultrasound Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
<b>A. Furniture, office</b>					
1	Cupboard	1		●	
2	Chair, office	2		●	
3	Desk	1		●	
4	AC, split type, 1.5 kW, 230 V, 50 Hz	2		●	
5	Shelves, customized, aluminium	1		●	
6	Bench, 4 seats, metal/SS, plastic	1		●	
<b>B. Equipment, medical</b>					
1	Ultrasound machine; ISO13485 certified; 3D, upgradable to 4D, colour doppler, on cart and castor, Monitor above 19-inch high resolution, flat panel, medical grade monitor with wide viewing angles & good colour resolution; Complete cardiac package; Tissue Harmonic Imaging, Compound Imaging & Doppler Mode available on all probes. Doppler cursor user-steerable with linear transducers. System Power: 200-240V, AC, 50Hz; with 3 KVA Online UPS, USB Color Laser Printer of reputed brand with built-in image management Software.	2	●		
<b>C. Furniture, medical</b>					
1	Couch, examining; 2-section (knock-down construction): 1800 mm (l) x 750 mm (w) x 760 mm (h). Folding table with top in two sections. Drop leaf section (headpiece) 490 mm (l) x 750 mm (w). Removable and adjustable by ratchet type frame. Frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with minimum 2 mm thickness. With crossbars for stability. Square section ends to be fitted with rubber or plastic bungs. Sheet metal parts minimum 1.5 mm thickness.	1		●	
2	Stool, surgeon, adjustable height	1		●	

Area: Storeroom

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
<b>A. Furniture, office</b>					
1	Cupboard	1			●
2	Racks, storage, set	1			●

Area: Waiting Area; Patients

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Bench	1			●
2	Chair	4		●	
3	Desk	1		●	

**Department: Surgery**

Area: Operating Theatre, Main

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Light, operating, ceiling mounted, single or 2 dome heads, LED, 160,000 lux; shadow-less; electric; 230 V, 50 Hz	6	●		
2	Light, operating, ceiling mounted, single dome heads, LED, 160,000 lux; shadow-less; mobile, battery-powered, 12 V DC	6	●		
3	Oxygen Concentrator, 10 LPM, with accessories and spares	6	●		
4	Suction machine; 230 V, 50 Hz, 2-jar, 2,5 L, auto shut-off float valve, mobile on castor wheel	6	●		
5	Suction machine; manual, 1-jar, 2. r L, portable	6	●		
6	Table, operating, universal, 3-sections, hydraulic, mechanical adjust and movement, with washable mattress, 4 inches, straps; with broad armrest	6	●		
7	Diathermy machine (ESU); monopolar and bipolar; foot-operated and hand-operated	6	●		
8	Monitor, physiologic, Multi-parameter, Pulse oximeter; BP, temperature and ECG	6		●	
9	Resectoscope plus accesories	2	●		
10	Cystoscopy and ureteroscope set	2	●		
11	Karl Storz universal towers for urological procedures	2	●		
12	Urethral calibration set (urethral dilators)	2	●		
13	Paediatric scopes (cystoscopes, rectoscopes, gastroscopes, sigmoidoscopes, bronchoscopes)	1	●		
14	Endoscope; colonoscope and gastroscope	1	●		
	Flexible fibreoptic bronchoscopes (adult and paediatric)	2	●		
15	Fiberscope	1	●		
16	Defibrillator (AED)	5	●		
17	Doppler, hand-held	5	●		
18	Laparoscope and instruments	2	●		
B.	Equipment, medical, anaesthesia				
1.	Anaesthesia machine; with rotameter/flow meter for O <sub>2</sub> , NO <sub>2</sub> and air, rebreathing circuit and CO <sub>2</sub> absorber, temperature-controlled vaporizer or draw-over vaporizer or OMV, or TEC-7	6	●		

	equivalent, for isoflurane and sevoflurane, and tray-mounted for equipment and instrumentation; US FDA approved or European CE mark. On a powder-coated trolley on castor, with drawers, safety features and a mechanism for accidental oxygen supply deficiency with alarm. With oxygen, flush at least 50 mL. With pin-index oxygen cylinder connected as a backup supply				
2	Cylinder, oxygen with pressure regulator, flow regulator and humidifier	6	●		
3	Oxygen sockets, piped, humidifier and flow regulator	10	●		
4	Instrument sets, anaesthesia, general equipment	3	●		
5	Resuscitator, manual, adult and infant	5			
6	Resuscitation table with warmer; 230 V, 50 Hz; temperature setting, skin probe, AGPAR, with work light, on castors with drawers	2	●		
7	Warmer, radiant, infant; 230 V, 50 Hz; manual and servo mode, with a skin probe, alarms and indicators; on castors	2	●		
8	Scavenging equipment per OT	5	●		
C. Equipment, refrigeration					
1	Refrigerator for drugs; 12 cu ft, electric, compressor type, 230 V, 50 Hz, inverter technology	2		●	
2	AC, laminar flow system	5	●		
D. Furniture, medical					
1	Cupboard, dangerous drugs, Lockable storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity. Suitable for wall mounting, including wall fixtures. Overall dimensions 900mm (l) x 300mm (w) x 900mm (h). The cupboard to be in two separate sections, divided horizontally, each section with two doors. The upper section is prepared for tablet and dangerous drugs storage, and the lower is for 500ml 5 L stock bottles of medicines.	4		●	
2	Cupboard, instruments	6		●	
3	Drip stand	2		●	
4	Stool, surgeon, adjustable height	2		●	
5	Table, Mayo, adjustable height with a telescopic column from approximately 750-1400 mm. Stainless steel construction. Removable tray approximately 500(l) x 400(w) x 25 (h)mm. With a 5-prong base and 60 mm anti-static castors.	6		●	
6	Trolley, instruments	6		●	
7	Trolley, patient, with removable stretcher, trolley frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2mm thickness. Stretcher size approximately 2000 (l) x 650 (w) mm. Height of trolley 800 mm. Frame with chromium-plated or epoxy coating finish, with four free-running, antistatic, swivel castors of 200 mm diameter. Bumpers to all four corners, with drop-down rails, IV	6		●	

	pole and oxygen tank holder. With 9° Trendelenburg and 14° reverse Trendelenburg tilting mechanism.				
E. Hollow ware/containers					
1	Hollow ware set, theatre	5		●	
2	Bin, waste	2		●	
F. Sundries, medical					
1	Boots, operating, white with a black sole, sizes 10, 9, 8 and 7	2		●	
2	Clogs, theatre, white sizes 10, 9, 8 and 7	2		●	
G. Equipment, medical, surgical instruments					
1	Diagnostic equipment set	6	●		
2	Instrument set, anaesthesia, intubation	6	●		
3	Instrument set, anaesthesia, local/regional drug techniques	6	●		
4	Instrument set, anaesthesia, paediatrics, valves and masks	6	●		
5	Instrument set, Caesarian section	15	●		
6	Instrument set, dilatation and curettage	6	●		
7	Instrument set, general surgery, laparotomy	6	●		
8	Instrument set, Major General set	6	●		
9	Instrument set, hysterectomy	6	●		
10	Instrument set, IV cut-down	6	●		
11	Instrument set, laparotomy (adult and paediatric)	6	●		
12	Instrument set, Spinal surgery set adult	6	●		
13	Instrument set, Orthopaedic (nailing set +ORIF)	6	●		
14	Instrument set, Minor general set	6	●		
15	Instrument set, skin graft (Electric dermatome, mesher, derma carrier,	6	●		
16	Instrument set, stitch removing	6	●		
17	Instrument set, tracheostomy	6	●		
18	Instrument set, tubal ligation	6	●		
19	Instrument set, urology (Prostectomy, bladder surgery, nephrectomy)	6	●		
20	Instrument set, anaesthesia, vasectomy	6	●		
21	Instrument set, hernia (adult and paediatric)	6	●		
22	Instrument set; cleft palate and cleft lip	3	●		
23	Instrument set, Hypospadias Set (paediatric)	3	●		
24	Instrument set, Spinal Bifida and hydrocephalus	3	●		
25.	Instrument set, Craniotomy (adult and paediatric)	3	●		
26.	Instrument set, thoracotomy	3	●		
27.	Instrument set, Rectoscopy	3	●		
28.	Instrument Bowel resection – Linear, curved and circular Stapler	3	●		

Area: Changing Room/Locker Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Chair, stackable, metal frame	15	●		
2	Locker, 5 compartments, with lock and key, metal	5	●		

Area: Store

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	LN
A Sundries, domestic					
1	Cleaning utensils; set	5			●

Area: Recovery Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A Equipment, medical					
1	Suction machine, 2-jar, electric, 230 v, 50 Hz, mobile	2			●
2	Suction machine, 1-jar, manual, portable	2		●	
3	Sphygmomanometer, aneroid, portable and on castors	6	●		
4	Pulse oximeter; internal, rechargeable; fully charged in 6 hours. Approximately 4-5 hours of continuous use, 3-digit LED (light-emitting diodes) display, Range 0-100% Accuracy: ±2% at 70-100%, ±3% at 50-69% Averaging: 4.8- or 16-pulse beat average. - Pulse rate: Range 30-254 bpm - Accuracy: ±2% at 30-254bpm - Averaging: 8 or 16-second average. LED flashes to alert the operator to check the sensor placement; Operating temperature is 0 to 45°C	6	●		
5	Monitor, physiologic, multi-parameter, 230 V, 50 Hz	6	●		
B Furniture, medical					
1	Hospital bed, adult, with side rail, measuring 2000 (l) x 900 (w) x 600 (h) mm. With a backrest adjustable up to 30° in 3 steps of approximately 10°. Mesh size and reinforcement of bed to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm. Bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness. Square section ends to be fitted with rubber or plastic bungs. The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively. Epoxy finish. Collapsible slide rails with spring hook security system	10	●		
2	Drip stand, double hook	5		●	
C. Furniture, office					
1	Chair, office, stackable	5	●		



2	Cupboard	1			
3	Desk, wood	1			
4	AC, split type, 230 V, 50 Hz, 1.5 kW	3			
5	TV, 230 V, 50 Z, flat, LED, 32 inches	1			●

Area: Sluice Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, medical					
1	Trolley, laundry; soiled linen, double bag, tubular or rectangular frame on 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of chromium-plated or stainless steel. Thickness of tubing 2 mm. Provision to hang 2 removable collection bags of 450 mm diameter. Collection bags of linen canvas. With one spare bag. Size: approximately 900 (l) x 450 (w) x 950 (h) mm.	5		●	
B. Hollow ware/containers					
1	Dust bin	3			●
2	Basin, wash, plastic; 40 cm. diameter	5			●

**Other Areas /offices that may require Office equipment and furniture**

1. Surgeon's Office
2. Anaesthesiologist's Office
3. Head Nurse's/Matron's Office
4. Receptionist's office

**Department: Central Sterile Supply; Sterilization**

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, domestic, kitchen					
1	Hot plate, medium, 2,000 W, 230 V, 50 Hz	2		●	
2	Stove, LPG, 1 burner, 2 L	1			●
B. Equipment, medical, sterilization					
1	Disinfectant, boiling water type, S/S, small and large, approximately dimensions: 500 x 300 x 150 mm and 680 x 500 x 430 mm	1		●	
2	Sterilizer units: a) steam, non-vacuum, vertical, fuel-fired, medium; 39L, b) tabletop, electric, semi-automatic, steam, up to 134 °C, 6-15 Ls, 3) steam, electric, fully automatic, vertical/horizontal 76 L,	5	●		
C. Furniture, medical					
1	Trolley, instruments	2	●		

D.	Furniture, Office				
1	Chair, metal	2		●	
2	Shelves, metal/SS, customised	5			●
3	Stool, metal, basic	5		●	
4	Table/workbench, metal	5		●	
E.	Hollow ware/containers				
1	Dust bin	3			●
2	Tray, instruments, sets of 3 sizes with cover, 300 x 250 x 50 mm	5	●		

Area: Store, sterile department

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Racks, storage	3			●

**Department: Burn (plastic and reconstructive surgery)**

Area: Treatment Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical, surgical instruments				
1	Instrument set, Minor plastic/graft set	1	●		
2	Instrument set general plastic surgery for Burns reconstruction	1			
3	Dermatome machine; electric	1	●		
4	Mesh graft machine (skin mesher)	1	●		
5	Skin graft knife (Watson's)	1	●		
6	Skin hooks	1	●		
7	Fine instrument set	1	●		
8	Medium/amputation set	1	●		
9	Bone nibbler; straight and curved	1	●		
10	Microsurgery set	1	●		
11	Vascular loops	1	●		
12	Drill, battery-powered; lithium-ion	1	●		
13	K-wires	1	●		
14	Lead Hand	1	●		
15	Dressing tub	1	●		
16	Thermoplastic splint	1	●		
B.	Equipment, domestic				
1	Blender	1			●

2	Kettle, boiling, 2 l	1				●
C. Equipment, medical						
1	Bathtub, Mobile	1	●			
2	Crutches, walker	2	●			
3	Bed, cradle	10	●			
4	Scale, weighing (chair or sit-up scale)	2			●	
5	Wheelchair	2			●	
6	Couch, examining	2			●	
D. Equipment, medical, sterilization						
1	Sterilizer, steam, high speed, semi-auto, tabletop, up to 134 °C, 230 V, 50 Hz	2	●			
E. Equipment, medical, sterilization packaging						
1	Drums, sterilizing, small, medium, large	2			●	

**Department: Orthopedic**

Area: Plaster Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, medical					
1	Water container with tap, on a stand, capacity of container 20 Litre, inclusive basin	1			●
2	Trolley, plaster	1	●		
3	Footstep, 1x, wood	1			●
4	Cast cutter, electric, small, medium, large, Plaster of Paris	2	●		
5	Hand drill, electric and manual with a drill bit, various sizes	2	●		
6	Cupboard for cottonwool and bandages/instrument	1		●	
7	Cupboard	1		●	
8	Steinmann pins, threaded, various sizes	1		●	
9	Steinmann pins, unthreaded, various sizes	1		●	
8	Stirrups, traction	2		●	
10	Saw, amputation, small, large	2	●		
11	Saw, Gigli	1	●		
12	K-wire	1	●		
13	Frames, Blounts	1		●	
14	Crutches various sizes	2		●	
15	Wheelchairs	2		●	
16	Frame, walking, various sizes	2		●	
17	Fragment set; Instruments, small and large	2	●		
18	Holman's retractors; various sizes	2		●	
19	Nibbler, bones, various sizes	1	●		
20	Curette, bone, various sizes	1	●		

21	Osteotomes, various sizes	1			
22	Chisels, various sizes	1		●	
23	Rasp. Orthopaedic, S/S, various kinds	1	●		
24	Gouges, various	1	●		
25	Forceps	1		●	
26	Drum, sterilizing	1		●	
27	Fork, tuning	1		●	
28	Tape, measuring	1		●	
29	Trigonometer	1		●	
30	Hooks, bone, various use	1	●		
31	Hammer, orthopaedics	1		●	
32	Shield, amputation	1		●	
33	Probes and handle	1		●	
34	Thomas splint, various sizes	1	●		
35	External fixator; large for lower limbs and small for upper limbs	1	●	●	
36	Weights; set	1	●		
37	Trolley, dressing	1			
38	Elevator, orthopaedics, various use	1			
39	Shears/Scissors, Plaster of Paris	1			
40	Tourniquet, pneumatic	1	●		
41	Bandages, rubber, Esmarch	1		●	
42	Collar, neck, hard and soft	1	●		
43	Aprons	1			●
44	Goggles/visors	1		●	
45	View box, x-ray, 3 fields	1		●	
46	Chair, wood	4			●
B. Equipment, office					
1	Clock, wall, digital	1			●
2	Table, metal	2		●	
3	Chair, metal frame	4		●	
4	Chair, executive	1			●
5	Benches; metal/SS; 4 seats	1			●
6	Dust bin	1			●
C. Equipment, medical instruments					
1	Beds, orthopaedic, adjustable, with overhead traction beams, traction bars, pulleys	10	●		
2	Monitor, physiologic, multi-parameter, NIBP	5	●		
3	Pulse Oximeters	5	●		
4	ECG Monitors; 3-leads	5	●		
5	Instrument set, orthopaedic	5	●		
6	Instrument set, minor surgery	5	●		
7	Instrument set, suture	5	●		
8	Bed, ICU/HDU	5	●		
9	Glucometer	2	●		

10	Suction Machine; Electrical and manual	2		●	
11	Oxygen Concentrators	5	●		
12	Syringe Driver/pump	5	●		
13	Cylinders, oxygen, 40 L, medical	4	●		
14	Digital Thermometer	5			●
15	Resuscitator; Manual	5	●		
16	Ventilator; mechanical/digital, 230 V, 50 Hz, built-in air compressor	2	●		
17	Plaster table, orthopaedic, fracture	2	●	●	
18	Oscillating plaster saw, electric; 230 V, 50 Hz	2	●		
19	Light, examining, mobile	2		●	
20	Screen, four-fold, on castors	4		●	
21	Treatment bed/operating table/ theatre bed	2	●		
22	Drip stand, double hook	4		●	
23	Cast cutter, electric	2	●		

Area: Theatre, Orthopaedic

Nr	ITEM/DESCRIPTION	QT	PRIORITY		
			H	M	L
A.	Equipment, medical, theatre set, orthopaedics				
1	Osteotomes, various sizes	1	●		
2	Mallets / Hammers (various sizes)	1	●		
3	Holman Retractors (various sizes)	1	●		
4	Periosteal Elevators (various sizes)	1	●		
5	Bone Nibblers	1	●		
6	Bone cutters (various sizes)	1	●		
7	Bone Holding Clamps (various sizes)	1	●		
8	Bone Hooks	2	●		
9	Bone Spikes	2	●		
10	Bone Gouges (various sizes)	1	●		
11	Bone wire Cutters (various sizes)	1	●		
12	Pin Cutters (various sizes)	1	●		
13	Bone Curettes (various sizes)	1	●		
14	Pliers	2	●		
15	Gigli Saw	2	●		
16	Amputation Saw	2	●		
17	Amputation Soft Tissue Place Retractors	2	●		
18	Self-retaining Soft Tissue Retractors (various sizes)	1	●		
19	Instrument for hip replacement therapy	1	●		
B.	Furniture, office				
1	Bin, pedal	1			●
2	Cupboard	1	●		
3	Fan, ceiling, electric, 2 ft blade	4			
C.	Equipment, medical, imaging, x-ray				

1	View box, x-ray 4 fields	1		●	
D. Equipment, medical, Instrument					
1	Plaster instrument set	1	●		

Area: Examination Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical, anaesthesia					
1	Cylinder, oxygen, medical, 40 L, complete with a regulator, flow meter, 10 LPM and humidifier	2	●		
2	Oxygen Concentrator, 10 LPM	2	●		
3	Resuscitator, manual	5	●		
B. Equipment, medical, imaging, x-ray					
1	View box, X-ray, PVC coated	1		●	
C. Equipment, medical, instrument set					
1	Diagnostic set for Minor surgery	2	●		
2	Instrument set, Orthopaedic	1	●		
3	Instrument set, general surgery, large	2	●		
4	Skin grafting set	12	●		
D. Equipment, office					
1	Clock, wall type	1			●
E. Furniture, medical					
1	Examination couch	2	●		
2	Screen, four-folds, with castors	2		●	
3	Drip stand, double hooked	2		●	
4	Stretcher	2		●	
5	Trolley, patient	1		●	
6	Trolley, dressing	1		●	
7	Wheelchair	2	●		
F. Furniture, office					
1	Chair, metal	2		●	
2	Chair, Executive	1		●	
3	Desk, wood	1		●	
4	Cupboard	1		●	
5	Bench, metal/SS, 4 seats	1		●	
6	Basket, waste, paper	1			●
7	Dust bin	1			●

**Department: Physiotherapy**

Area: Treatment Room, Physiotherapy

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Ball, physiotherapy, set	1	●		
2	Exercise, arm, muscle	3	●		
3	Exercise, foot, muscle	3	●		
4	Mattress, exercising, washable, foldable	3	●		
5	Mirror, physiotherapy	1	●		
6	Parallel bars, physiotherapy, metal, S/S coated	2	●		
7	Wheelchair; small, medium, large	2	●		
8	Screen, four-folds, on castors	2	●		
9	Combined wax sterilizer and wax bath	2	●		
10	Hard adjustable neck collar with chin pieces; small, medium, large	2	●		
11	Wrist braces (lock-up splint); small, medium, large	2	●		
12	Balance bench	2	●		
13	Medicine ball set	2	●		
14	Short wave unit	2	●		
15	TENS	5	●		
16	Pyramid, walking frame; small, medium, large; aluminium; with 2 wheels and without	2	●		
17	Mirror, posture	1	●		
18	Ergonometer	1	●		
19	Treadmill, motorized, with speed and incline adjustment	2	●		
20	Treadmill, manual	3	●		
21	Auxiliary Crutches, metallic, adjustable; small, medium, large	3	●		
22	Pedal bin	2	●		
23	Stationary bike, with load adjustment	3	●		
24	Sphygmomanometer, aneroid type and stand type with castors	3	●		
25	Ultrasound machine	1	●		
26	Paraffin bath	1	●		
27	Dumbbells; 1 Kg	3	●		
28	Philadelphia Collar	1	●		
29	Lumbo Sacral Corset Belt	1	●		
30.	Abdominal Binders	1	●		
31	Hernia Belts	1	●		
32	Short Cock up Splint	1	●		
33	Tennis elbow support	1	●		
34	Arm Sling	1	●		
35	Soft heel pad/cushions	1	●		
36	Metatarsal bar/pad with insole	1	●		
37	Arch support	1	●		
38	Polypropylene- AFO Solid	1	●		
39	Long cock up splint	1	●		

40	Automatic flush system	1	●		
41	Knee sleeve without hinge	1	●		
42	Finger Orthosis	1	●		
43	Elbow orthosis- Static	1	●		
44	Unloader Knee orthosis	1	●		
45	Elbow Gaiter	1	●		
46	Shoulder immobilizer	1	●		
47	Thumb spica	1	●		
48	LSO- Rigid Brace	1	●		
49	Leaf spring AFO	1	●		
50	Grab bars	1	●		
51	Compression stockings	1	●		
52	Soft insole	1	●		
53	CTEV shoes	1	●		
54	Club Foot Braces	1	●		
55	KAFO- Drop lock/ Offset/ Polycentric	1	●		
56	Standing frame	1	●		
57	Transfer Board	1	●		
58	Handrail and grab bars	1	●		
59	Portable Ramps	1	●		
60	Platform crutches	1	●		
61	Elbow crutches	2	●		
62	Walking cane/stick	5	●		
63	Tripod Cane	2	●		
64	Quad cane	2	●		
65	Walker/ Walking frames	2	●		
66	CP chair/ corner chair	1	●		
67	Stairlifts	1	●		
68	Standing tables	1	●		
69	CTLSO	1	●		
70	TLSO-Boston	1	●		
71	TLSO-Body jacket	1	●		
72	TLSO (Corset)	1	●		
73	ASH brace	1	●		
74	Taylor's brace	1	●		
75	Knight Taylor's brace	1	●		
76	Williams brace	1	●		
77	Cervical orthosis- soft /semi-rigid	1	●		
78	Two post collar	1	●		
79	SOMI brace	1	●		
80	Halo brace	1	●		
81	Knuckle bender	1	●		
82	Elbow orthosis - dynamic	1	●		
83	Fracture Arm brace without elbow hinge and forearm support	1	●		
84	Fracture Forearm brace	1	●		
85	Aeroplane splint	1	●		
86	DB splint	1	●		
87	UCBL	1	●		
88	PP AFO-Articulated	1	●		



89	Pneumatic Walker	1	●		
90	PP Knee orthosis	1	●		
91	Knee sleeve with hinge	1	●		
92	Knee sleeve with hinge	1	●		
93	PTB brace/ fracture leg brace	1	●		
94	Rollator	1	●		
95	Weight support treadmill trainer	1	●		
B.	Equipment, medical, refrigeration				
1	Chilling, freezer unit	1		●	
C.	Furniture, medical				
1	Couch, examination, 2 sections	2	●		
D.	Furniture, office				
1	Bench, wood, 4-seater, plastic	2		●	
2	Chair, basic, metal	3		●	
3	Desk, wood	1		●	
E.	Equipment, office				
1	Fan, electric, ceiling, 2 ft blade, 230 V, 50 Hz	3		●	

Area: Waiting Area

Nr	ITEM/DESCRIPTION	QT Y	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Bench, metal/SS, 4-seater, plastic	1		●	
2	Chair, basic, metal	4		●	
3	Desk, wood	2		●	
B.	Equipment, office				
1	Fan, electric, ceiling, 2 ft blade, 230 V, 50 Hz	4			●
2	AC, split-type	2		●	

Department: Pharmacy

Area: Dispensary

Nr	ITEM/DESCRIPTION	QT Y	PRIORITY		
			H	M	L
A.	Equipment, glassware				
1	Hand washing, soap dispenser/sanitizer	1		●	
2	Coat hook	1			●
3	Cylinder measuring glass; 10 ml; 100 ml	2	●		
4	Rod stirring, glass, 230 x 6 mm	1	●		
5	Counting device, tablet/capsule	1	●		
6	Photoelectric cell counters	1	●		

B.	Equipment, refrigeration				
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1			
C.	Furniture, medical				
1	Cupboard, drugs/medicine	4		●	
D.	Furniture, office				
1	Basket, waste, paper	1			●
2	Chair, office, with armchair and backrest, cushioned, on castors, height adjustable	4		●	
3	Chair, metal, stackable, basic	4		●	
4	Cupboard	1		●	
5	Desk, metal, approximately 1600 x 750 mm	1		●	
6	Racks, storage, set	1			●
7	AC, split type, 1.5 KW, inverter	2			●
8	Bench, metal/SS, 4 seats, fabricated	1			●

Area: Preparation Room, Pharmacy

Nr	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, glassware				
1	Glassware set, pharmacy	2	●		
B.	Equipment, medical, laboratory				
1	Balance, chemical, 2 kg x 0.1 g; digital	1	●		
2	Balance, dispensing, 100 g x 10 mg	1	●		
3	Distilling unit; 100 L per 24 hours, self-desired volume, ASTM, type II water, 3000 W, 230 V, 50 Hz,	1	●		
4	Electric mixer; with timer, flow and weight measuring	1	●		
5	Bucket, 50 L	1	●		
6	Analytical balance top loading	1	●		
7	Liquid chromatography with a diode array detector	1	●		
8	Mass spectrometry	1	●		
9	Atomic Absorption Spectrometry	1	●		
10	Microbalance	1	●		
11	PH meter	1	●		
12	Fume hood	1	●		
13	Degasser	1			
14	Reference weights	1	●		
15	UV/VIS double beam spectrophotometer	1	●		
16	Potentiometer	1	●		
17	Fourier Transform Infrared Spectrophotometer (FTIR)	1	●		
C.	Equipment, refrigeration and AC				
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	2	●		
2	AC; split type; 2 KW	2			



D.	Furniture and equipment, Office				
1	Chair, basic, metal, stackable	2			
2	Cupboard, drug	2			
3	Stool, basic, metal	2	●		

Area: Store, Pharmacy

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture, office				
1	Rack, storage, set	1		●	
2	Desk, wood, with drawers and lock and key	1		●	
3	AC, split type, inverter, 2 KW, 230 V, 50 Hz	1		●	
4	Chair, office, armchair	2		●	
5	Cupboard, drug	1		●	
6	Fan, electric, ceiling, 2 ft blade, 230 V, 50 Hz	2		●	
7	Calculator, desk type, electronic, solar powered	1		●	
8	Basket, waste, paper	1		●	
9	Chair, monoblock, plastic	1		●	
10	Clock	1		●	
11	Computer, Desktop with UPS and AVR and printer	1		●	
B.	Furniture, medical				
1	Trolley, dispensing; with shelves, 600 (l) x 450 (w) x 800 (h) mm, tubular or rectangular frame with two fixed S/S shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of S/S. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm.	2		●	
2	Trolley, flatform, truck (hand truck)	2		●	
3	Cupboard, drugs	2		●	
C.	Equipment, refrigeration				
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	2		●	
D.	Equipment, domestic				
1	Ladder, aluminium, single, 3-steps, 4 ft.	1		●	

Department: Ophthalmology

Area: Examination/Consultation Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, medical				
1	Chart, eye, vision testing, Snellen, alphabet/iILate	1	●		
2	Chart, eye, vision testing, near chart	1	●		

3	Chart, eye, vision testing, Snellen, e chart	1	●		
4	Light, examining	1	●		
5	Sphygmomanometer	2	●		
6	Stethoscope	2	●		
7	Thermometer, clinical, digital	5	●		
8	Tonometer	1	●		
9	Screen, four-fold, on castors	4		●	
10	Weighing scale, adult, physician, with height measurement, metric, 140 kg x 100g	2	●		
11	Weighing scale, toddler, digital	2		●	
B. Equipment, medical, ophthalmology					
1	Slit lamp	1	●		
2	Magnifying loop	1	●		
3	Trial set with trial frame, small	1	●		
4	Lensometer	1	●		
C. Equipment, medical, surgical instruments					
1	Diagnostic equipment set	2	●		
D. Furniture, medical					
1	Examination couch	1	●		
E. Sundries, miscellaneous					
1	Torch, penlight, with extra bulb	1		●	

Area: Treatment Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical					
1	Chalazion set	1	●		
2	Instrument set, foreign body removal	2	●		
3	Instrument set, suturing	2	●		
4	Instrument set, entropion	1	●		
5	Instrument set, enucleation	1	●		
6	Instrument set, suture removal set	2	●		
7	Instrument set I & D	1	●		
8	Instrument set, cataract	2	●		
9	Scissors, stitch	2	●		
10	Scissors, curved, small	2	●		
11	Scissors, curved, medium	2	●		
12	Needle holders	2	●		
13	Epilation forceps	2	●		
14	Lid retractors adult	1	●		
15	Lid retractors, children	1	●		
16	Eyelid retractors desmarres, adult, size 3, 5.5 "	2	●		

17	Eyelid retractors desmarres, children, size 0, 5.5"	2	●		
18	Forceps, artery curved, small	2	●		
19	Forceps, artery straight, small	2	●		
20	Forceps, dissecting, toothed, small	2	●		
21	Forceps, dissecting, non-toothed	2	●		
22	Knife handle, surgical, Bard-Parker 3	2	●		
23	Knife handle, surgical, Bard-Parker 4	2	●		
24	Forceps, Cheatele, 270mm	2	●		
B. Equipment, medical					
1	Trolley, dressing, with shelves, s/s, 600L x 450W x 800H mm	1		●	
2	Wheelchair	1		●	
C. Furniture, medical					
1	Drip stand, double hook, adjustable height, on castors	2		●	
D. Furniture, office					
1	Bin, pedal	1			●
2	Clock, wall type, digital	1			●
3	Kettle, boiling, 2 L	1			●
4	Chair, armchair, office	1			
5	Basket, waste, paper	1			●
6	Bench, metal/SS, 4 seats	1			●
7	Stool, adjustable with cushion	2			●
8	Cupboard	1		●	
9	Table, office	1		●	
10	Desk, computer, CPU, keyboard, monitor and printer with AVR	1		●	
E. Equipment, glassware					
1	Bottle, eye dropper, glass 60 ml	1	●		
2	Eyeball glass	1		●	
3	Measure, medicine glass	1			
F. Equipment, sterilization					
1	Sterilizer, autoclave, steam, high-speed, semi-auto, 134 °C	1	●		
G. Hallow ware/containers					
1	Basin, dispensing, s/s 25ml	1		●	
2	Bowl s/s 152mm	1		●	
3	Bowl s/s 255mm	1		●	
4	Gallipot, p/p, 75mm diameter	1		●	
5	Gallipot, s/s, 57ml	1		●	
6	Jug, measuring, various sizes, S/S	1		●	
7	Kidney dish, s/s, 203mm with cover	1		●	
8	Kidney dish, s/s, 152mm, with cover	1		●	
9	Kidney dish, medium with cover	1		●	
10	Measure, medium, p/p 50ml	1		●	

11	Brush, surgeon's, scrub, autoclavable, nylon bristles	1		●	
12	Jar, anaerobic, 2,5 L with baskets	1		●	
13	Instrument trays with covers	1		●	
14	Sponging holding forceps, small	1		●	
15	Urinal male PP (Polypropylene)	1		●	
16	Bedpan S/S	1		●	
17	Mayo tray and stand	1		●	
18	Bowl, kick, s/s, with stand and anti-static castors	1		●	
19	Bucket, mop	1			●

Area: Waiting Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Chair, monoblock, plastic	4			●

**Department: Mortuary**

Area: Mortuary

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, medical, surgical instruments					
1	Instrument sets, post-mortem	2	●		
B. Equipment, medical					
1	Trolley, cadaver	2	●		
2	Cadaver cabinet; 4 x unit	2	●		
3	Mortuary cold room refrigerating unit	1	●		

Area: Mortuary, Office

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Basket, waste, paper	1			●
2	Chair, basic, metal	2		●	
3	Chair, office	2		●	
4	Cupboard, instrument	2		●	
5	Desk, metal	2		●	

Area: Store, Mortuary

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, Office					
1	Cupboard	1		●	
2	Rack, storage, set	1		●	
3	Shelves, wood, aluminium	1		●	
4	Ladder, aluminium, 4 t, 3-step	1		●	

**Building: Administration**

**Department: Administration**

Area: Conference Room/Library

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, office, information, teaching aids					
1	Projector, LCD	1		●	
2	Sound system, Bluetooth, FM/AM, 500 Watts, 230 V. 50Hz, CD/Video player, USB port	1		●	
3	TV/Monitor, 32 in, flat, LED	1		●	
4	Screen, projector, roll-up	1		●	
5	Whiteboard, 4 x 8 ft	1		●	
6	Microphone, table	1		●	
7	AC, split type, inverter, 2 KW, 230 V, 50 Hz	1		●	
‡					
B. Furniture, office					
1	Chair, office, armchair	5		●	
2	Chair, basic, metal, stackable	5		●	
3	Cupboard	1		●	
4	Table, conference, wood, customized to the size and shape of the room; 20-25 seater	1		●	

Area: Medical Superintendent Office, Administration

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Cabinet, with lock and keys	1		●	
2	Chair, office, armchair, visitor	2		●	
3	Chair, executive, swivel	1		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	1		●	

6	Shelves, aluminium/metal, customised	1		●	
7	Basket, waste, paper	1			
8	Conference table and chairs, small, 5-6 seater	1			
9	Sala sofa set with centre table	1		●	
10	Refrigerator; 8 cu ft	1			●
B. Equipment, office					
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1		●	
2	AC, split type, inverter, 2 kW, 230 V, 50 Hz	1			
3	Shredder, paper	1		●	
C. Equipment, domestics					
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1		●	
2	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1			●

Area: Hospital Secretary

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, office					
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1	●		
2	AC, split type, inverter, 2 kW, 230 V, 50 Hz	1	●		
3	Ceiling fan, 4 ft	2		●	
B. Equipment, domestics					
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1		●	
2	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1		●	
3	Coffee/tea set	1		●	
C. Furniture, office					
1	Cabinet, with lock and keys	1		●	
2	Chair, office, armchair, visitor	1		●	
3	Chair, executive, swivel	1		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	1		●	
6	Shelves, aluminium/metal, customised	1		●	
7	Basket, waste, paper	1		●	

Area: Matron Office

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, office					



1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1		●	
2	AC, split type, inverter, 2 kW, 230 V, 50 Hz	1		●	
B. Equipment, domestics					
1	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1		●	
2	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1			●
C. Furniture, office					
1	Cabinet, with lock and keys	1		●	
2	Chair, office, armchair, visitor	1		●	
3	Chair, executive, swivel	1		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	1		●	
6	Shelves, alum/metal, customised	1		●	
7	Basket, waste, paper	1			●

Area: Reception, one for Medical Superintendent, HS and Matron

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Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, office					
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1		●	
2	Fan, ceiling, electric, 2 ft blade, 230 C, 50 Hz	2	●		
B. Equipment, domestics					
1	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1			●
C. Furniture, office					
1	Cabinet, with lock and keys	2		●	
2	Chair, office, armchair, visitor	4		●	
3	Chair, executive, swivel	1		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	1		●	
6	Shelves, alum/metal, customised	1		●	
7	Basket, waste, paper	1		●	

Area: Storeroom

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Shelves, wood, customised	1			●
2	Cupboard	1		●	
B. Equipment, office					

1	Chairs, metal, basic	2		●	
2	Ladder, aluminium, 4 ft, 3-steps	1		●	
3	Fan, electric, ceiling, 2 ft blade, 230 V, 50 Hz	2	●		

**Building: Laundry**

**Department: Laundry**

Area: Laundry

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
<b>A. Equipment, Domestic</b>					
1	Sewing machine, electric, pedal, industrial type	2	●		
2	Scissors, linen, 8 inches, metal handle, industrial type	2	●		
<b>B. Equipment, laundry, domestic,</b>					
1	Dryer, automatic, industrial, 50 Kg, front-loading, time-controlled, electric, 230 V, 50 Hz	2	●		
2	Hydro extractor; automatic, industrial type, 20-25 kg, front-loading, time, controlled, electric, 230 V, 50 Hz	1	●		
3	Iron, electric, heavy-duty, 230 V, 50 Hz, steam and dry	3	●		
4	Ironing machine, industrial, roller type, 3 rollers	2	●		
5	Washing machine, 20-25 kg; industrial type, front-loading, time-controlled, automatic, 230 V, 50 Hz	3	●		
<b>C. Furniture, office</b>					
1	Basket, waste, paper	1		●	
2	Cupboard	1	●		
3	Chair, basic, metal	2		●	
4	Desk, metal	2		●	

Area: Storeroom, Laundry,

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
<b>A. Furniture, office</b>					
1	Rack, storage, set for clean	2		●	
2	Rack, storage, set for dirty	2		●	

**Department: Hospital Maintenance Unit**

Area: Generator and Solar Power Room

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Gen-set room					
1	Gen-set, stand-by, 250 KVA, 0.8 p.f., 3-phase, 400/380/230 V, 4-wire; 50 Hz, 1500 rpm	1	●		
2	Gen-Set, stand-by, 250KVA, 0.8 p.f., 3-phase, 400/380/230 V, 4-wire; 50 Hz, 1500 rpm	1	●		
3	Basic tools set for mechanics	1	●		
4	Jerrycan; plastic, 20 Ls	5			
B. Solar power Plant					
1	15 KVA, 3-phase, 230 V, 50 Hz, solar power plant; MPPT, Inverter, battery banks	1	●		
C. Oxygen factory					
1	PSA Plant 36 cubic meter/hr, 3 phase-4 wire, 380-400V, 50Hz	1	●		
2	Gen-Set, 150 KVA, 3 phase-4 wire, 380/400/240V/50Hz	1	●		

Area: Office, Maintenance

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Basket, waste, paper	1			●
2	Cupboard	1		●	
3	Chair, basic, metal, visitors	4		●	
4	Desk, metal, 1300 x 700 mm	1		●	
5	Chair, executive, swivel on castors	1		●	
6	Hand washing facility	1		●	
B. Equipment, office					
1	AC, 1.5 KW, inverter, split type, 230 V, 50 Hz	1		●	
2	Refrigerator, inverter, 8 cu ft	1		●	

Area: Storeroom

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Shelves, metal, customized	2			
2	Cupboard; steel cabinet	1			
3	Racks, storage	1		●	

Area: Reception

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Equipment, office					
1	Computer, desktop, monitor, keyboard with UPS, AVR and printer/photocopying machine	1		●	
2	Fan, ceiling, electric, 2 ft blade, 230 C, 50 Hz	2			●
3	Refrigerator, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1			●
B. Equipment, domestics					
1	Kettle, water, boiling, 2 L; electric, 230 V, 50 Hz	1			●
C. Furniture, office					
1	Cabinet, metal, with lock and keys	1		●	
2	Chair, basic, metal, visitor	2		●	
3	Chair, monoblock, plastic	4		●	
4	Cupboard	1		●	
5	Desk, metal/wood; 1600 x 700 mm	2		●	
6	Shelves, metal, customized	2		●	
7	Basket, waste, paper	2		●	

Area: Workshop; Maintenance

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Tools, building					
1	Tool kit, mason/plasterer	1	●		
B. Tools, carpentry					
1	Tool kit, carpentry	1	●		
C. Tools, Electrician					
1	Tool kit, electrician	2	●		
D. Tools, biomedical technician					
1	Tool kit, electronic/biomedical technician	2	●		
E. Tools, mechanic/welder					
1	Tool kit, mechanic	1	●		
2	Welding machine, arc welding, spot welding, oxy-acetylene	1	●		
F. Tools, plumbing					
1	Tool kit, plumbing	1	●		

**Building: Kitchen**  
**Department: Dietary and Nutrition**

Area: Store, Kitchen

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Shelves, metal/aluminium, customised	1		●	
2	Cupboard	1		●	
3	Racks, storage	1		●	
4	Pallets	1		●	
5	Platform scale, analogue	1		●	
6	Lifter	1		●	
7	Scale, retail	1		●	
B. Equipment, domestic, kitchen					
1	Serving ladles, wood	1	●		
2	Heavy duty, hotplate	1	●		
3	Cooker, electric, 230 V, 50 Hz, 5 L	1	●		
4	Butcher knives; butcher knife, fluted	1	●		
5	Stirring sticks	1	●		
6	Food warmers	1	●		
7	Cooking pots, assorted aluminium	1	●		
8	Trolley, food, on castors, 3-inch	1	●		
9	Meat cutter, electric	1	●		
10	Chopping board, complete with mallet	1	●		
11	Cook's knife	1	●		
12	Salmon serrated knife	1	●		
13	Chopping knife	1	●		
14	Cleavers arus knife	1	●		
15	Bread Knife	1	●		
16	Steak knife	1	●		
17	Scale, hanging	1	●		
18	Chopping block	1	●		
19	Axe, hand	1	●		
20	Basin, S/S, various sizes	1	●		
21	Slicer, meat	1	●		
C. Refrigeration					
1	Cold room, 10 m <sup>3</sup> , 400/230 V, 50 Hz; 500 BTU/H	1	●		
2	Refrigerator, domestic, 12 cu ft, inverter, with AVR, 230 V, 50 Hz	1	●		
3	Freezer, deep, with AVR	1	●		
4	Chiller	1	●		

Area: Cooking Area

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, kitchen, domestic				
1	Cooking Pots	2	●		
2	Large Plate Stove; Electric	1	●		
3	Microwave Oven	1	●		
4	Deep Fryers Heavy duty with perforated baskets	1	●		
5	Frying Pans	1	●		
6	Baine Marie	1	●		
7	Hot cupboard Baine Marie	1	●		
8	Food Warming Cabinet	1	●		
9	Boiling Urns	1	●		

Area: Preparation Area, Food

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, kitchen, domestic				
1	Potato Masher	1		●	
2	Vegetable Cutter	1		●	
3	Blender	1		●	
4	Whisk	1		●	
5	Ladles	1		●	
6	Portion Server	1		●	
7	Perforated Spoons	1		●	
8	Solid Spoon	1		●	
9	Sided Grater	1		●	
10	Carvery Forks	1		●	
11	Grill Fork lifter	1		●	
12	Tong Salad square	1		●	
13	Tong Serving Oval; Solid ends	1		●	
14	Chip basket; 5 x 2 sizes	1		●	
15	Egg lifter	1		●	
16	Egg wedger	1		●	
17	Can opener	1		●	
18	Tomato Slicer	1		●	
19	Mixing bowl; 5 x different sizes	1		●	
20	Mixing machine	1		●	
21	Bulk food trolley	1		●	
22	Hospital food service trolley	1		●	
23	Soup warmer	1		●	
24	Vulcan pot	1		●	
25	Milk jug	1		●	
26	Cutlery set	1		●	
27	Plates	1		●	
28	Water glass set x 12	1		●	

29	Stock pots; 4 x 2 different sizes	1		●	
30	Saute pans	1		●	
31	Casseroles with lid	1		●	
32	Tea trolley	1		●	
33	Frying pans	1		●	
34	Conveyor toaster	1		●	
35	Colander	1		●	
36	Conical strainer	1		●	
37	Plate warmer	1		●	
38	Scoops; 20 x 3 different sizes	1		●	
39	Baking tins	1		●	
40	Baking trays	1		●	
41	Silicon moulds; 5 x 3 different sizes	1		●	
42	Drying racks	1		●	

Area: Office, Dietitian/Nutritionist

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, office					
1	Basket, waste, paper	1			●
2	Cupboard	1		●	
3	Chair, basic, metal, visitors	1		●	
4	Desk, metal, 1300 x 700 mm	1		●	
5	Chair, executive, swivel on castors	1		●	
B. Equipment, office					
1	AC, 1.5 KW, inverter, split type, 230 V, 50 Hz	1		●	

Area: Wet Area, Kitchen

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			V	E	N
A. Furniture, office					
1	Rack, storage, sets	1		●	
2	Table, metal, 1300 x 700 mm	1	●		

### Building/Office

Department: Solid Waste Management/Environmental Health and Sanitation

Area: Store

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A. Furniture, Office					
1	Shelves, metal/aluminium, customised	1		●	
2	Cupboard	1		●	

Area: Office; Environmental Health Officer

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Furniture and equipment, office				
1	Rack, storage, sets	1		●	
2	Table, metal, 1300 x 700 mm	1		●	
3	Basket, waste, paper	1			●
4	Cupboard	1		●	
5	Chair, basic, metal, visitors	1		●	
6	Desk, metal, 1300 x 700 mm	1		●	
7	Chair, executive, swivel on castors	1		●	
8	AC, 1.5 KW, inverter, split type, 230 V, 50 Hz	1		●	
9	Desktop computer, with UPS and monitor	1		●	

Area: Waste Management

Nr.	ITEM/DESCRIPTION	QTY	PRIORITY		
			H	M	L
A.	Equipment, waste management				
1	Incinerator, diesel-fired, medical waste; applications for medical waste designed for hazardous waste, sharps waste Other characteristics floor-standing, compact, high-temperature range min.: 850 °C (1,562 °F) max.: 1,320 °C (2,408 °F) capacity 0.6 m <sup>3</sup> (21.2 ft <sup>3</sup> , power supply: 220V/50Hz)	1	●		
2	Incinerator, Diesel-fired: Refuse Collector, Capacity: 20 kg/h incinerator, Fuel: Diesel fuel incinerator, Function: Recycle Metal, Power Supply: 220V/50Hz)	1	●		
3	<b>De Montfort (brick-type)</b> - high-temperature dry oxidation at > 850°C in the primary chamber and 1,100°C in the secondary chamber with a retention time of two seconds to avoid the formation of dioxins and furans	1	●		
4	<b>Autoclaves; medical biohazard waste</b> (horizontal stainless steel pressure steam sterilizer, working pressure: 0.22 Mpa, working temperature:134°C, Adjustment of temperature:40°C-134°C, Timer: 0-60min, Drying Time Range: 0-60min, Power: 9-18 KW / AC 400/230V 50 Hz	1	●		
5	Bin, waste, with wheel, foot-operated cover	5	●		
6	Gloves, rubberized; pair, heat resistant, elbow length	10	●		
7	Apron, heat resistant, washable, knee-length	5	●		
8	Boots; pair, high-cut gum-like, a mix of rubber and plastic materials, slip-free, waterproof, heat resistant	5	●		
9	Goggle; clear and transparent material, scratch-resistant, to cover the whole face, velcro fittings	5	●		
10	Shovel, big, metal, rust-free	2	●		
11	Wheel burrow; metal, rubberized wheel	2	●		



## Part II: SETS COMPOSITION AND EQUIPMENT SPECIFICATIONS

### Abstract

Part II of the Standard Equipment List (SEL) contains the sets composition, specifications of common and sophisticated and complex equipment that should be available in any public healthcare facility. Likewise, Part II of SEL provides basis for the standardization and better management of medical equipment in Sierra Leone

### Cleaning utensils, set

Nr.	Description of Items	Specifications
1	Bucket, mop	Galvanized sheet, 12 litres
2	Mop, floor	6-foot handle, plastic, mop head cloth materials, replaceable

### Diagnostic equipment set for health centre

Nr.	Description of Items	Specifications
1	Depressor, tongue,	Wood material, adult/child, disposable
2	Reflex hammer	Solid rubber head
3	Sphygmomanometer	Aneroid, child and adult cuffs
4	Stethoscope	Foetal, aluminium
5	Stethoscope	Adult, aluminium, Littman standard
5	Tape measure	Cloth material, 2m
6	Thermometer, clinical	Oral, prismatic, degree C / F
7	Thermometer, clinical	Rectal, degree C
8	Syringe	Aural, irrigating, Kramer, metal, 90ml
9	Torch, examination	Penlight, w/ extra bulb
10	Box, Instruments	S/S, w/ cover, 300x200x50 mm

### Diagnostic equipment set for CO and Medical Assistant Health Centre

Nr.	Description of Items	Specifications
1	Depressor, tongue	Wood, adult/child, disposable

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2	Ophthalmoscope, set	<p>Range of lenses not smaller than -20D to +20D with steps not greater than 1D, anti-reflection lens, magnification 12-16x  Apertures: small, large and semi-circle, fixation star.  Colour temperature: Cool white in the range of 3100-5500K  Light intensity: 8,000-12,000 lux, dust-free sealed optics and aspherical optical system, red-free, blue, green and polarization filters. Handle with on/off switch, scratch-proof lens; glass (preferred) or plastic, Batteries: AA or AAA or rechargeable  Battery life: at least 5 hours of use on a full charge or fresh batteries, set contained in a hard storage case.  Capable of being stored continuously in an ambient temperature of 0 to 50 °C and relative humidity of 15 to 90%. Capable of operating continuously in an ambient temperature of 10 to 40 °C and relative humidity of 15 to 90%. Liquid splash resistant</p>
3	Otoscope (auriscope)	<p>2.5 – 3 x magnification, cool white in 3100 - 5500K, 8,000 -12,000 lux, reusable, autoclavable, clean with alcohol wipes, handle with on/off switch, a scratch-resistant lens, glass (preferred) or plastic, port for an insufflation bulb  The set is in a hard storage case, liquid splash resistant, standard AA or AAA or rechargeable batteries.</p>
4	Reflex hammer	Solid rubber head
5	Sphygmomanometer	Aneroid, child and adult cuffs
6	Stethoscope	Binaural, dual chest-piece, adult
7	Stethoscope	Foetal, aluminium
8	Tape measure	Cloth material, 2m
9	Thermometer, clinical	Oral, prismatic, degree C / F
10	Thermometer, clinical	Rectal, degree C
11	Tuning Fork	512 Hz
12	Proctoscope	Child / adult
13	Speculum, vaginal	Bi-valve, Graves, medium, s/s
14	Syringe	Aural, irrigating, Kramer, metal, 90ml
15	Torch	Examination, penlight, w/ extra bulb

**Diagnostic equipment set for wards/nurses**

Nr.	Description of Items	Specifications
1	Depressor, tongue	Wood material, adult/child, disposable
2	Reflex hammer	Solid rubber head
3	Sphygmomanometer	Aneroid, child and adult cuffs
4	Stethoscope,	Foetal, aluminium
5	Stethoscope	Adult, aluminium, Littman standard
6	Tape measure	Cloth material, 2m
7	Thermometer, clinical	Oral, prismatic, °C / F
8	Thermometer, clinical	Rectal, degree C
9	Speculum, vaginal	Bi-valve, Graves, medium, S/S
10	Syringe	Aural, irrigating, Kramer, metal, 90ml

**Endoscopy set for Endoscopy Unit**

Nr.	Description of Items	Specifications
1	Haemorrhoidal band ligator	Similar to the Olympus brand
2	Urea Breath Test Analyzer	ditto
3	Meghini Liver Biopsy needle	ditto
4	Liver Aspiration needle	ditto
5	Peritoneal biopsy needle	ditto
6	Pigtail Catheter	ditto
7	Endoscopy Set composition	Light Source, Image Processor, Monitor, Endoscope, Colonoscope, Suction machine; Scope Guide, Electrosurgical Generator

### Glassware set, pharmacy

Nr.	Description of Items	Specifications
1	Beaker	Glass, low-thermal-expansion borosilicate glass, clear, graduated, low-form, w/spout, 50 ml
2	Beaker	Glass, low-thermal-expansion borosilicate glass, clear, graduated, low-form, w/spout, 100 ml
3	Beaker	Glass, low-thermal-expansion borosilicate glass, clear, graduated, low-form, w/spout, 250 ml
4	Beaker	Glass, low-thermal-expansion borosilicate glass, clear, graduated, low-form, w/spout, 500 ml
5	Beaker	Glass, low-thermal-expansion borosilicate glass, clear, graduated, low-form, w/spout, 1000 ml
6	Cylinder,	Measuring, glass, graduated, 100 ml
7	Cylinder	Measuring, glass, graduated, 10 ml
8	Cylinder	Measuring, glass, graduated, 500 ml
9	Funnel	Glass, Pyrex, medium, 150 mm diameter
10	Mortar and pestle	S/S, round, medium, 150 mm diameter
12	Rod, stirring	Glass, 200 x 7 mm
13	Rod, stirring	Glass, 230 x 6 mm
14	Rod, stirring	Glass, 300 x 8 mm

### Glassware set, laboratory

Nr.	Description of Items	Specifications
1	Beaker	Glass, low-thermal-expansion borosilicate glass, clear, graduated, low-form, w/spout, 50 ml; 250 ml; 500 ml, 1,000 ml
2	Bottle	For reagent, amber glass, glass stopper, 1.0 L; 2.5 L;
3	Bottle	For reagent, clear glass, glass stopper, 1.0 L; 2.5 L
4	Cover	Glass, microscope slide, 22 x 22 mm
5	Funnel, lab	Filter, Buchner, inside diameter, 56 mm

6	Pipette	Serological, heat resistant glass (HRG), graduated, 1 ml/0.01 ml
7	Pipette	Serological, HRG, graduated, 5 ml/0.01 ml
8	Rod	Stirring, glass, 200 x 7mm
9	Slide	Microscope, glass, 25 x 75 mm
10	Test Tube	Glass, borosilicate, w/rim, 150x16 HRG
11	Rack	Staining, microscope slide staining, for 25 slides
12	Rack	Test tube, wood, 12 tube
13	Forceps	Cover glass, Kuehne, flat, bent tips, 100mm
14	Forceps	Microscope slide, Kirkbride, 125 mm
15	Bottle aspirator	Laboratory, polythene, w/ carrying handle, 10 L; 5 L; 2 L
16	Cylinder	Measuring, polypropylene (PP), graduated, 50 ml; 100 ml; 500 ml; 1000 ml
17	Funnel, laboratory	HRG, ribbed, 115 mm x 250 ml
18	Funnel, laboratory	Laboratory, Polyethene (PE), ribbed, 100 mm; 160 mm diameter
19	Funnel, laboratory	Pouring, PE, large, 200 mm diameter
20	Wash bottle	Polyethene (PE), oval, w/ spout, 500 ml
21	Scriber	Glass marking, tungsten carbide, 125 mm

#### **Glassware/plasticware, set, laboratory, basic**

<b>Nr</b>	<b>Description of Items</b>	<b>Specifications</b>
1	Beaker	Low-thermal-expansion borosilicate glass, graduated, low-form, with spout, 50 ml; 250 ml; 500 ml; 1000 ml
2	Bottle	Dropper, amber glass, for stains, 50 ml
3	Bottle	Reagent, amber glass, glass stopper, 1.0 l
4	Bottle	Reagent, clear glass, glass stopper, 1.0 l
5	Cover glass	Microscope slide, 22x22mm
6	Cylinder	Measuring, glass, graduated, borosilicate, 50 ml; 100 ml; 250 ml; 500 ml; 1000 ml
7	Flask	Conical, Erlenmeyer, graduated, wide neck, low-thermal-expansion borosilicate glass, 250 ml; 500 ml; 1000 ml

8	Flask, stopper	Volumetric, PP, 50 ml; 100 ml; 250 ml; 500 ml; 1000 ml
9	Funnel	Laboratory, filter, Buchner, inside diameter 56 mm
10	Pipette	Pasteur, PE, 1 ml
11	Pipette	Serological, hrg, graduated, 1 ml/0.01 ml; 2 ml/0.02 ml; 5 ml/0.1 ml; 10 ml/0.01 ml
12	Rod	Stirring, glass, 200x7mm
13	Slide	Microscope, glass, 25x75 mm
14	Stopper	For the test tube, low-density polyethylene (LDPE), 16 mm
15	Test tube	Glass, 100x16 mm
16	Test tube	Glass, borosilicate, w/ rim, 150 x 16mm HRG
17	Test tube	PE, 100 x 16 mm
18	Tube	Sedimentation, conical bottom, glass, 105 x 16 mm
19	Pipette filler	3-way valve, universal, PVC
20	Rack	Staining, with a rack, microscope slide staining, for 25 slides
21	Rack	Test tube, metal frame, nylon coated, 24 tubes
22	Bottle	Aspirator, laboratory, polyethylene (PE), with carrying handle, 10 L; 5 L
23	Bottle	Aspirator, laboratory, polyethylene, with carrying handle, 5 litres
24	Bottle	Reagent, amber glass, glass stopper, 500 ml
25	Bottle	Reagent, clear glass, glass stopper, 500 ml
26	Container	Specimen, sputum, 60 ml
27	Container	Specimen, universal, w/ screw cover, reusable, p/p, 100 ml
28	Funnel, laboratory	HRG, ribbed, 115 mm / 250 ml
29	Funnel, laboratory	PE 100 mm
30	Funnel, laboratory	Ribbed, 160 mm dia.
31	Funnel, laboratory	Pouring, p/e, large, 200 mm dia.
32	Wash bottle	Polyethene (PE), oval, with spout, 250 ml; 500 ml
33	Brush	Test tube, nylon, bristle, 12-16 mm
34	Gloves	Cleaning, pair, heavy-duty, rubber
35	Rack	Draining, glassware, 560x560 mm
36	Brush	Bottle, cleaning, white nylon, 40x50 mm

#### Hollow ware set, laboratory

Nr.	Description of Items	Specifications
1	Bowl	Wash, PE, 6 L
2	Bowl	Wash, shallow, autoclavable, PP, 4 L
3	Container	For sharps, for approximately 250 needles
4	Container	For sharps, PE, 4 L
5	Tray, instrument	PP, 350 x 250 x 50 mm

#### Hollow ware, set, consulting room

Nr.	Description of Items	Specifications
1	Bottle	Round, screw-cap type, amber glass, 50 ml
2	Bottle	Dropper, polyethene, w/ pipette, 60 ml
3	Bottle	Flat, plastic, 120 ml
4	Bowl	Sponge, s/s, 600 ml
5	Box	Soap, 2-piece, hinged, plastic
6	Jar	Ointment, plastic, 60 ml
7	Dish	Kidney, s/s, 475 ml

#### Hollow ware, set, delivery room

Nr.	Description of Items	Specifications
1	Forceps	Sterilizer, cheattle, 270 mm
2	Basin	Utility, PP, 4-L
3	Bedpan	Adult, S/S
4	Bowl	Sponge, S/S, 600 ml
5	Bowl	Wash, S/S, 600 ml



6	Box	Soap, 2-piece, hinged, plastic
7	Jar	For cheastle forceps, s/s, 100 mm x 200 mm
8	Dish	Kidney, S/S, 203 mm; 825 ml
9	Bucket	Waste, with cover
10	Tray	Instruments, S/S, 350 x 250 x 50 mm
11	Brush	Surgeon's, scrub, autoclavable, nylon bristle

#### **Hollow ware, set, theatre**

<b>Nr.</b>	<b>Description of Items</b>	<b>Specifications</b>
1	Bucket	Mop
2	Dustbin	Pedal, S/S 12 L
3	Tray	Instrument, covered, S/S, 312 x 200 x 69mm

#### **Hollow ware, set, treatment room**

<b>Nr.</b>	<b>Description of Items</b>	<b>Specifications</b>
1	Bottle	Eye dropper, glass, 60 ml
2	Eye bath	Glass
3	Cup	Measure, medicine, glass and PP, 50 ml
4	Forceps	Sterilizable, Cheatle, 270 mm
5	Basin	Utility, PP 4 l
6	Bedpan	S/S
7	Bowl	Dispensing, S/S, 25 ml
8	Bowl	Lotion, S/S, 250 mm; 150 mm
9	Box	Soap, 2-piece, hinged, plastic
10	Douche	Can, enema, PP, with tubing
11	Douche	Nozzle
12	Gallipot	PP, 75 mm dia.

13	Gallipot	S/S, 57 ml
14	Jar	For cheatles forceps, s/s, 100 mm diameter x 200 mm
15	Jug	Measuring various sizes, S/S
16	Dish	Kidney S/S, 152 mm; and a large size
17	Lid	For Kidney dish, S/S, 152 mm
18	Lid	For lotion bowl, S/S, 152 mm
19	Cup	Measure, medicine, PP, 50 ml
20	Tray	Instrument, PP, 350x250x50 mm
21	Urinal	Male, PP
22	Brush	Surgeon, scrub, autoclavable, nylon bristle

#### Hollow ware, set, duty station

Nr.	Description of Items	Specifications
1	Forceps	Sterilizer, Cheatles, 270 mm
2	Bedpan	Adult, S/S
3	Bedpan	Child, S/S
4	Bowl	Dispensing, S/S, 25 ml
5	Bowl	Wash, s/s, 6 l
6	Box	Soap, 2-piece, hinged, plastic
7	Gallipot	S/S, medium, 75 mm diameter
8	Jar	For cheatles forceps, S/S, 100 mm diameter X 200 mm
9	Jug	Measuring various sizes, S/S
10	Dish	Kidney, s/s, 203 mm
11	Mug	Sputum, s/s
12	Tray	Serving, s/s
13	Urinal	Male, stainless steel (S/S)

### Instrument, set, anaesthesia

Nr.	Description of Items	Specifications
1	Bandage,	For tourniquet, Esmarch; natural rubber (Latex) synthetic polyisoprene (Latex-Free); W: 60 mm (2.5" ) 80 mm (3" ) 100 mm (4" ) 120 mm (5" ) 150 mm (6"); Thickness: 0.38 mm (0.015" ) 0.50 mm (0.020" ) 0.70 mm (0.028"); plain textured surface
2	Sphygmomanometer,	aneroid, large dial, adult cuff
3	Stethoscope,	binaural, dual chest piece
4	Tourniquet,	pneumatic, 100 to 450 mmHg cuff pressure; 1-10 mmHg pressure regulation; maximum 60 mm Hg; Increase and decrease in pressure settings in the range 1 to $\pm$ 10 mmHg online setting; Range from 3 hours to 20 minutes timer; Digital display of set pressure and time elapsed; 230 V AC 50 Hz, with a voltage stabilizer, built-in

### Instrument, set, anaesthesia, intubation

Nr.	Description of Items	Specifications
1	Adaptor	Tracheal, set, plastic, set, male cone fit, 3mm to 10 mm, 15mm
2	Airway, Guedel type	Oropharyngeal airway, semi-rigid, transparent; flanged colour-coded; smooth finished, rounded edges, with reinforced bite block, Material: Polyethylene/vinyl acetate (EVA) - Polyvinyl chloride (PVC); with insert, sizes 00; 000, 1, 2, 2.5, 3, 4
3	Airway	Nasal
4	Brush	Cleaning tracheal tubes, large, medium and small
5	Catheter	Connecting tube, mount, 90 mm
6	Catheter	Tracheal, suction, plastic, Ch.8, Ch. 12, Ch. 16, Ch.20
7	Cone	Female, plain, anti-static, 150mm and 22 mm
8	Cone	Male, 22 mm at one end and 15 mm at the other end
9	Connector	Tracheal, angled, 15 mm female cone
10	Gag	Mouth, Ferguson, with Ackland jaws, adult size
11	Laryngoscope	Mackintosh, folding with 4 blades in a pouch
12	Wedge	Anaesthetic, boxwood or plastic

13	Forceps	Anaesthetic, Magill, adult size
14	Forceps	Anaesthetic, Magill, child size
15	Introducer	For endotracheal tubes, malleable
16	Introducer	For infant and child tracheal tubes
17	Spray	Oral, Macintosh, w/ malleable rubber covered tube
18	Tube	Endotracheal, Magill, cuffed,
19	Tube	Endotracheal, Magill, cuffed, (disposable)
20	Tube	Endotracheal, PVC, cuffed, rubber, sizes: 3.0 mm, 3.5 mm, 4 mm, 5 mm, 6 mm, 7 mm, 8 mm, 9 mm, 10 mm
21	Tube	Endotracheal, un-cuffed, 10 pieces, assorted, disposable
22	Tube	Stomach, plastic, large, disposable, 76 cm, medium and small

#### **Instrument set, anaesthesia, local/regional drug techniques**

<b>Nr.</b>	<b>Description of Items</b>	<b>Specifications</b>
1	Anaesthesia kit	Epidural, w/ 16 G needle
2	Introducer	For spinal needles, Sise
3	Needle	For a 2.2 mm cartridge syringe, 0.4 mm, long and short
4	Needle	Epidural, Tuohy w/ stylet, 18-gauge needle 25 G 80-90 mm long
5	Needle	Hypodermic, 0.65 x 25 mm; 1.25 x 76 mm; Luer lock fitting, 0.45 x 13 mm
6	Needle	Spinal, Luer, (disposable), 0.7 x 70 mm
7	Needle	Spinal, Panett, Luer, 0.9 x 100 mm
8	Syringe	Dental cartridge type, 2.2 ml
9	Syringe	Glass, metal tip, central nozzle, Luer, 1 ml, 2 ml, 5 ml, 10 ml, 20 ml, 50 ml

#### **Instrument set, anaesthesia, paediatrics**

<b>Nr.</b>	<b>Description of Items</b>	<b>Specifications</b>
1	Mask	Anaesthesia, child, Rendell-Baker, sizes: 0, 1, 2 and round paediatrics masks

2	T-piece	Child circuit kit, Ayre'skit, for draw-over vaporiser
3	Valve	Non-rebreathing, anaesthesia type, paediatric for controlled or spontaneous respiration, Ambu E, w/ 22 mm male inlet, 22/15mm patient, 22 mm male outlet cones, w/ 4 spare leaflets

**Instrument set, anaesthesia, valves, masks**

<b>Nr.</b>	<b>Description of Items</b>	<b>Specifications</b>
1	Harness	For face mask
2	Mask	Anaesthesia, Essex, size 0, for 22 mm fitting
3	Mask	Anaesthesia, size 5
4	Tube	Corrugated, anaesthetic, 22 mm dia., 1.5 metre
5	Valve	Expiratory, Heidbrink, angled connector, 20 mm, ISO cone
6	Valve	Non-rebreathing, anaesthesia type, adult, for controlled or spontaneous respiration, Ambu E, w/ 22 mm male inlet, 22/15 mm patient 22 mm male outlet cones, w/ 4 spare leaflets

**Instrument set, caesarian**

<b>Nr.</b>	<b>Description of Items</b>	<b>Specifications</b>
1	Operating Scissors; Curved, straight	1 x S/B Str 14.5 cm.;
2	Foerster Sponge Serrated	1 x 4 Str 25 cm
3	Allis Tissue Forceps	1 x 5x6 19cm.
4	Mayo Scissors	1 x 17cm Str TC
5	Dressing Forceps	1 x 20 cm.
6	Tissue Forceps	6 x 1:2 20cm
7	Heaney Needle Holder	1 x 21cm TC
8	Rochester Pean Forceps Cvd	1 x 16cm
9	Towel clip	1 x 16,cm

10 Retractor	1 x 25 cm; round concave
11 Scalpel handle	S/S handle can hold replaceable blades, 3, 3L, 4, 4 L, 7, B3

#### **Instrument set, dental extraction**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Slab	Mixing, dental, s/s, white, No. 10
2	Clip	Towel, Mayo
3	Excavator	Dental, double-ended, SSW, No. 17, S/S
4	Excavator	Dental, double-ended, SSW, No. 18, S/S
5	Forceps	Dental extraction, lower anterior, child, S/S
6	Forceps	Dental extraction, lower anterior, S/S
7	Forceps	Dental extraction, lower full molar, S/S
8	Forceps	Dental extraction, lower pre-molar, S/S
9	Forceps	Dental extraction, upper anterior, child, S/S
10	Forceps	Dental extraction, upper anterior, S/S
11	Forceps	Dental extraction, upper left molar, S/S
12	Forceps	Dental extraction, upper pre-molar, S/S
13	Forceps	Dental extraction, upper right molar, S/S
14	Handle	Mouth-examining, mirror, S/S
15	Mirror	Mouth-examining, plane glass, w/o handle
16	Tweezers	Dental, bayonet form, smooth, S/S
17	Box	Instruments, SS, w/cover, 300 xx 200 x 50 mm

#### **Instrument set, dilation and curettage**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Hawkin	Ambler cervical dilator sets

2	Catheter	Metal, female, S/S, Ch. 12
3	Clip	Towel, cross action
4	Curette	Rheinstater
5	Curette	Blunt, D. E., Sims
6	Forceps	Vant, uterine, polyp
7	Forceps	Dissecting, Bonney, 1x2 teeth
8	Forceps	Dissecting, Bonney, plain
9	Forceps	Dressing, Bozeman
10	Forceps	Ovum, MacClintock
11	Forceps	Sponge, Rampleys
12	Forceps	Uterine, vulsellum, Teale
13	Sound	Uterine
14	Speculum	Vaginal, Auvard
15	Speculum	Vaginal, Sim's

**Instrument set, endoscopy**

1	Endoscope	Minimal invasive surgery
2	Camera	IP 67 Waterproof, HD with LCD Display & Holder - 4.3" or bigger, 8mm, 2000mAh, supports TF, memory card or micro USB, can be used with a smartphone, can be used as a video monitor
3	Light source	Portable, LED, CRI R <sub>a</sub> >90; with multi-light guide adapter
4	CO <sub>2</sub> Insufflator	With tubing sets, with a 2-tank shuttle valve system, high-pressure hose and yoke, DISS hose, mobile cart and water bottle holder
5	Trocars	3-5 mm outside diam; 55-100 mm length, autoclavable
6	General purpose surgical instruments	See below

### Instrument set, general purpose

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Auriscopes (otoscopes)	Plastic handle and specula
2	Depressor	Tongue, metal and wood, Adult / Child
3	Forceps	Aural, Hartmann
4	Forceps	Nasal dressing and tampon, Troeltsch
5	Forceps	Swab holding, Foerster, 200 mm
6	Hook	Foreign body lever, Gardiner Brown, Downs
7	Knife	Handle, surgical, Bard-Parker No. 3, and No. 4
8	Scissors	Dressing, Lange, straight, 180 mm
9	Speculum	Nasal, S/S
10	Syringe	Aural
11	Box	Instruments, S/S, w/ cover, 300 x 200x 50 mm
12	Gallipot	SS, medium, 75 mm dia.
13	Dish	Kidney assorted sizes, S/S

### Instrument sets, episiotomy and tears, extra

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Forceps	Dissecting, Bonney, plain
2	Forceps	Dissecting, Bonney, toothed
3	Speculum	Vaginal, bi-valve, Graves, medium, S/S
4	Box	Instruments, S/S, w/ cover, 300 x 22 x 50 mm

### Instrument sets, foreign body removal

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Forceps	Dissecting, plain, straight, 125 mm



2	Forceps	Nasal dressing, Hartmann's
3	Forceps	Splinter, Peets
4	Forceps	Swab holding, Foerster, 200 mm
5	Speculum	Nasal, set of four, thulium
6	Box	Instruments, S/S, w/ cover, 300 x 200 x 50 mm

#### **Instrument sets, ear, nose, and throat, casualty**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Clippers	Hair
2	Forceps	Dissecting, Stillers, 1:2, 120 mm
3	Forceps	Dressing, standard, straight, 115 mm
4	Forceps	Sinus, 178 mm
5	Forceps	Splinter, w/ magnifying glass, 90 mm
6	Forceps	Swab holding, Foerster, 200 mm
7	Scissors, Mayo	Straight, 150 mm
8	Scissors	Dressing, Lange, straight, 180 mm
9	Scissors	Ligature, Spencer, 130 mm
10	Stick	Shaving, reusable
11	Bowl	Lotion, S/S, 110 mm diameter X 40 mm
12	Box	Instruments, S/S, w/ cover, 300 x 200 x 50 mm
13	Gallipot	PP, 75 mm diameter
14	Dish	Kidney, assorted sizes, S/S

#### **Instrument set, general surgery, large**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Clip	Towel, Mayo
2	Dissector	Watson Cheyne, fine, with a probe, 125 mm
3	Elevator	Mac Donald

4	Forceps	Anchoring, Robin, screw joint, for suction tubing, 25 mm
5	Forceps	Artery, Caim
6	Forceps	Artery, Crile, curved
7	Forceps	Artery, Halstead or Dunhill, curved
8	Forceps	Artery, Spencer Wells, straight, 178 mm
9	Forceps	Cholecystectomy, Moynihan
10	Forceps	Dissecting, Gillies
11	Forceps	Dissecting, Lane or Bickford, 1x2 teeth
12	Forceps	Dissecting, Lane or Bickford, plain
13	Forceps	Dissecting, Macindoe
14	Forceps	Dissecting, Maingot, 1x2 teeth
15	Forceps	Dissecting, Maingot, plain
16	Forceps	Dissecting, Waugh, 203 mm, 1x2 teeth
17	Forceps	Dissecting, Waugh, plain, 203 mm, 1x2 teeth
18	Forceps	Sinus, 178 mm
19	Forceps	Sponge, Rampleys
20	Forceps	Tissue, Allis
21	Forceps	Tissue, Babcock
22	Forceps	Tissue, Duval
23	Forceps	Tissue, Lane, or Littlewood or Pointer
24	Instrument	Pin
25	Knife	Handle, surgical, Bard-Parker, No. 3
26	Knife	Handle, surgical, Bard-Parker, No. 4
27	Needle	Holder, Mayo, 152 mm
28	Needle	Holder, Mayo, 203 mm
29	Needle	Holder, Newton Morgan, 254 mm
30	Needle	Aneurysm
31	Probe	152 mm
32	Quiver	Removable base, autoclavable, 15cm, 20cm, 25cm, 30cm, 35cm lengths

33	Retractor	Gosset or Balfour
34	Retractor	Kelly, 2 sizes
35	Retractor	Langenbach, large
36	Retractor	Morris, 51 mm
37	Retractor	Travers
38	Scissors	Mayo, curved, 165 mm
39	Scissors	Mayo, straight, 165 mm
40	Scissors	McIndoe
41	Scissors	Metzenbaum
42	Scissors	Nelson
43	Scissors	Volkman
44	Tube	Suction, Yankauer

#### **Instrument set, hernia/hydrocoelelectomy**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Conductor	Ligature, Schmieden, 190 mm
2	Forceps	Artery, Hartmann, Mosquito, straight, 120 mm
3	Forceps	Artery, Kocher, straight, 160 mm
4	Forceps	Artery, Spencer Wells, curved, 120 mm; 180 mm
5	Forceps	Artery, spencer Wells, straight, 120 mm; 180 mm
6	Forceps	Clamp, Michel, 120 mm
7	Forceps	Dissecting, Stillers, 1:2, 120 mm
8	Forceps	Dressing, standard, straight, 115 mm
9	Forceps	Swab holding, Foerster, 200 mm
10	Forceps	Towel, Backhaus, 80 mm
11	Knife handle	Surgical, Bard-Parker, No.3; No. 4
12	Needle holder	Martin-Multiple, spring action, 210 mm
13	Needle holder	Mathieu, spring action, 170 mm

14	Needle holder	Mayo Hegar, straight, 160 mm
15	Needle	Suture, curved, cutting and round bodied
16	Nozzle	Suction, Yankauer, w/ removable outer cover, 220 mm
17	Pin	Safety, Mayo, large, for storing artery forceps
18	Retractor	Desmarres, 160 mm, 16 mm blade
19	Retractor	Graefe, one-toothed, 160 mm
20	Retractor	Langenbeck, 210 mm, 60 x 20 mm blade
21	Retractor	Langenbeck, small, 160 mm, 22 x 8 mm blade
22	Retractor	Roux, double-bladed, 140 mm, 150 mm, 170 mm
23	Scissors	Operating, curved, blunt, standard, 105 mm
24	Scissors	Operating, curved, blunt, standard, 185 mm
25	Scissors	Operating, fine, 115mm
26	Scissors	Operating, straight, blunt, standard, 105 mm
27	Scissors	Operating, straight, blunt, standard, 185 mm
28	Trocar set	Standard, 3.0, 4.0, 5.0 mm bore, 120 mm, w/ stopcock
29	Bowl	Lotion, s/s, 110 mm dia x 40 mm
30	Box	Instruments, s/s, w/ cover, 575 x 275 x 130 mm
31	Gallipot	SS, medium, 75 mm diameter

#### **Instrument set, hysterectomy**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Clip	Towel, Backhaus
2	Forceps	Artery, Kocher, straight, 127 mm
3	Forceps	Artery, Mayo, Ochsner, curved, 150 mm
4	Forceps	Artery, Spencer wells, 127 mm; 203 mm
5	Forceps	Cholecystectomy, Moynihan
6	Dissector	Watson Cheyne, fine, with a probe, 125 mm
7	Forceps	Dissecting, Bickford, 1x 2 teeth; plain

8	Forceps	Dissecting, Bonney, 1x 2 teeth; plain
9	Forceps	Dissecting, Maingot, 1x2 teeth; plain
10	Forceps	Sponge, Rampleys
11	Forceps	Tissue, Allis
12	Forceps	Tissue, Judd Allis, 195 mm
13	Forceps	Tissue, Littlewood
14	Forceps,	Uterine, vulsellum, Teale, curved, 230 mm
15	Instrument	Pin, Mayo, w/ ball end. 100 mm, 150 mm
16	Knife handle	Surgical, Bard-Parker, No. 4
17	Needle holder	Mayo, 152 mm; 203 mm; Reverdin & needles
18	Packing	Bozeman
19	Quiver	Removable base, autoclavable, 15cm, 20cm, 25cm, 30cm, 35cm lengths
20	Retractor	Gelpi; Landon; Wertheim
21	Scissors	Mayo, curved, 191 mm; straight, 191 mm
22	Scissors	Stitch
23	Screw	Myomectomy
24	Tube	Suction, Poole, 240 mm

**Instrument set, insertion/removal, intra-uterine contraceptive device**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Forceps	Artery, curved, Crile, 160 mm; straight, Crile, 160 mm
2	Forceps	Dressing, Lister, 160 mm
3	Forceps	Tissue, Allis, 5x6 t, 150 mm
4	Knife handle	Surgical, Bard parker, No. 3
5	Needle holder	Mayo-Hegar, 178 mm
6	Scissors	Mayo, curved, 162 mm
7	Scissors	Dissecting, curved, 145 mm; straight, 145 mm
8	Box	Instrument, SS, w/ cover, 300 x 200 x 50 mm

### Instrument set, intravenous cut-down

Nr.	Description of items	Specifications
1	Forceps	Artery, Halstead, curved; straight 125 mm
2	Forceps	Dissecting, fine, 1/2 teeth; plain ends
3	Hook	Sharp; skin, McIndoe
4	Knife handle	Surgical, Bard-Parker, No. 3
5	Needle	Aneurysm
6	Needle Holder	Kilner
7	Scissors	Iris

### Instrument set, laparotomy

Nr.	Description of items	Specifications
1	Decompressor	Intestinal, Savage's
2	Clamp	Intestinal, curved, Baby-Doyen, atraumatic, 130 mm
3	Clamp	Intestinal, curved, Mayo-Robson, atraumatic, 250 mm
4	Clamp	Intestinal, Payr's, crushing 290 mm; Payr's-baby, crushing 150 mm
5	Clamp	Intestinal, straight, Baby-Doyen, atraumatic, 130 mm
6	Clamp	Intestinal, straight, Mayo-Robson, atraumatic, 250 mm
7	Conductor	Ligature, Schiemedden, 190 mm
8	Forceps	Artery, Hartmann, Mosquito, straight, 120 mm
9	Forceps	Artery, Kocher, straight, 160 mm
10	Forceps	Artery, Spencer Wells, curved, 120 mm; curved, 180 mm
11	Forceps	Artery, Spencer Wells, straight, 120 mm; straight, 180 mm
12	Forceps	Clamp, peritoneal, Miculicz, 180 mm
13	Forceps	Dissecting, Stillers, 1:2, 120 mm
14	Forceps	Dressing, standard, straight, 115 mm
15	Forceps	Swab holding, Foerster, 200 mm

16	Forceps	Towel, Backhaus, 80 mm
17	Knife handle	Surgical, Bard-Parker No. 3; Bard-Parker No. 4
18	Needle holder	Martin multiple, spring action, 210 mm
19	Needle holder	Mathieu, spring action, 170 mm
20	Needle holder	Mayo-Hegar, straight, 160 mm; straight, 182 mm
21	Needle holder	Weinheim, 240 mm
22	Needle	Ligature, blunt, Deschamps, left-hand, 200 mm; Deschamps, right-handed, 200 mm
23	Needle	Ligature, blunt,
24	Needle	Suture, curved, cutting and round bodied
25	Nozzle	Suction, Yankauer, with removal outer cover, 220 mm
26	Pin	Safety, Mayo's, large, for strong artery forceps
27	Retractor	Deaver, 300 mm
28	Retractor	Graefe, one-toothed, 160 mm
29	Retractor	Koerte, toothed, blunt, 26 x 60 mm blade, 235 mm
30	Retractor	Langenback, small, 160 mm, 22 x 8 mm blade; 210 mm, 60 x 20 mm blade
31	Retractor	Roux, double-bladed, 140 mm, 150 mm, 170 mm
32	Retractor	abdominal, Doyen; Kirshner
33	Scissors	Dissecting, Mentzenbaum-Fino
34	Scissors	Fistula, Kelly, 180 mm
35	Scissors	operating, curved, blunt, standard, 185 mm; straight, blunt, standard, 185 mm
36	Spatula	Koerte, 260 mm
37	Bowl	lotion, s/s, 110 mm diameter X 40 mm
38	Box	Instruments, SS, w/ cover, 575 x 275 x 130 mm
39	Gallipot	S/S, medium, 75 diameter mm
40	Jar	S/S, 500 ml
41	Dish	Kidney assorted sizes, S/S
42	Tube	Sengstacke, Ch. 18 - 21

#### **Instrument set, lumbar puncture, adult**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Bottle	Bijou, sterilizable, for samples
2	Forceps	Swab holding, Foerster, 200 mm, (also for Gynecological surgery)
3	Needle	Lumbar puncture, paediatric
4	Scissors	Dressing, Lange, straight, 180mm
5	Box	Instruments, S/S, w/cover, 300 X 200 X 50 mm
6	Gallipot	SS, medium, 75 mm diameter

#### **Instrument set, lumbar puncture, paediatric**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Bottle	Bijou, sterilizable, for samples
2	Forceps	Swab holding, Foerster, 200 mm, (also for Gynecological surgery)
3	Needle	Lumbar puncture, adult
4	Scissors	Dressing, Lange, straight, 180mm
5	Box	Instruments, S/S, w/cover, 300 X 200 X 50 mm
6	Gallipot	SS, medium, 75 mm diameter

#### **Instrument set, minor surgery**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Clip	Towel, Backhaus
2	Forceps	Artery, Crile, Curved; Halstead, curved
3	Forceps	Dissecting, Adson, 1X2 teeth; Adson, plain end; Gillies; MacIndoe
4	Forceps	Sinus, 178mm
5	Forceps	Sponge, Rampleys



6	Forceps	Tissue, Allis; Babcock, Lane or Littlewood
7	Knife handle	Surgical, Bard-Parker No.3; Bard-Parker No. 4
8	Needle holder	Mayo or Crile Wood
9	Needle	Aneurysm
10	Pin	Safety, Mayo's, large, for storing artery forceps
11	Probe	178mm; S/S
12	Retractor	Durham, medium
13	Retractor	Gillies, skin hook; Kilner, catspaw; Langenbeck, small; West
14	Scissors	Mayo, straight, 165mm
15	Scissors	McIndoe; iris, or Strabismus; stitch
16	Scoop	Volkman, 4 mm/ 6 mm; double-ended

**Instrument set, operating room caesarean section**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Clip	Suture, Michel; towel, Backhaus
2	Forceps	Wrigley
3	Forceps	Artery, Crile, curved, 146mm; Spencer Wells, curved, 178mm
4	Forceps	Dissecting, Bonney, 1X2 teeth; Bonney, plain
5	Forceps	Haemostat, Green Armytage, 210mm
6	Forceps	Sponge, Rampley
7	Forceps	Tissue, Allis; tissue, Littlewood
8	Knife handle	Surgical, Bard-Parker, No. 4
9	Needle holder	Mayo, 178mm
10	Retractor	Doyen; Langenbeck, medium; Morris, 51mm
11	Scissors	Mayo, curved, 178mm; Mayo, straight, 178mm
12	Scissors	Stich
13	Approximator	Childe

### Instrument set, orthopaedic

Nr.	Description of items	Specifications
1	Bows	Extension, stirrups
2	Splint	Bowler-Braun
3	Tourniquet	Pneumatic, adult and child
4	Curette	Bone, set
5	Drill bit	Bone, twist, 4mm
6	Drill	Bone, hand operated, Stille-Shermann
7	Forceps	Seizing, 180mm
8	Introducer	For Kirschner wire
9	Knife	Plaster of Paris, Reiner, 185mm
10	Pulleys	For extension, orthopaedic
11	Saw	Amputation, Charriere, 350mm; Plaster of Paris
12	Scissors	Wire cutting, 130mm
13	Separator	Plaster of Paris, Haglund-Stillies, 280mm
14	Shears	Plaster of Paris, Seutin, 230mm; , Plaster of Paris, Stille, 370mm
15	Trephine	Bone marrow, 25mm
16	Bowl	Wash, SS, 6 L

### Instrument set, post-mortem

Nr.	Description of items	Specifications
1	Hammer	S/S, 8- 9-1/2" (20.3 cm- 24.1cm), with hook handle; 12 oz.
2	Knife	Catlin, solid forged, 120mm blade
3	Blowpipe	150mm
4	Chisel	No.3
5	Chisel	With cross handle
6	Forceps	Bone, 178mm

7	Forceps	Dissecting, 127mm
8	Hook	Sharp
9	Knife handle	Surgical, Bard-Parker, No.3
10	Knife	Brain, 203
11	Knife	Cartilage, 83mm
12	Knife	Single edge, 95mm
13	Needle	102mm
14	Saw	Fixed back
15	Scissors	Fine point, 127mm
16	Scissors	Bowl, 178mm
17	Coronet	Skull
18	Twine reel	4.5 m
19	Wrench	Spine, for post-mortem

**Instrument set, skin biopsy**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Forceps	Artery, Halstead, Mosquito, 125mm
2	Forceps	Dissecting, Gillies; MacIndoe
3	Forceps	Dissecting, plain, end, 127mm
4	Hook	Skin, Gillies
5	Knife handle	Surgical, Bard-Parker, No. 3
6	Scissors	Iris
7	Scissors	Gillies
8	Needle holder	Gillies

#### **Instrument set, skin graft**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Board	Skin graft
2	Blade	Skin graft, Rocket, disposable
3	Clip	Towel, Backhaus
4	Dissector	Mac Donald
5	Forceps	Dissecting, Gillies; MacIndoe
6	Forceps	Sponge, Rampley
7	Handle	Blade, skin graft
8	Retractor	Gillies, skin hook
9	Scissors	Metzenbaum, 140mm

#### **Instrument set, stitch removing**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Forceps	Clamp removing, Michel
2	Forceps	Dissecting, Stillers, 1:2. 120 mm
3	Forceps	Swab holding, Foerster, 200 mm
4	Scissors	Dressing, Lange, straight, 180 mm
5	Scissors	Ligature, Spencer, 130mm
6	Box	Instruments, S/S, with cover, 300 X 200 X 50 mm
7	Gallipot	SS, medium, 75 mm diameter

#### **Instrument set, suture**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Forceps	Artery, Halstead, curved; Halstead, straight, 125 mm
2	Forceps	Dissecting, 1 plain, 127mm; 1 Thieves, 127 mm

3	Forceps	Swab holding, Foerster, 200 mm
4	Needle holder	Mayo-Hegar, straight, 160 mm
5	Scissors	Suture
6	Box	Instruments, S/S with cover, 300 X 200 X 50 mm
7	Gallipot	SS, medium, 75mm diameter

#### **Instrument set, tracheostomy**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Forceps	Artery, Dunhill; Halstead
2	Forceps	Dissecting, Gillies; MacIndoe
3	Forceps	Sponge, Rampleys
4	Forceps	Tissue, Allis
5	Forceps	Towel, Mayo
6	Instrument	Pin
7	Knife handle	Surgical, Bard-Parker, No. 3; Bard-Parker, No. 4
8	Needle holder	152 mm
9	Retractor	Double, blunt; single, sharp hook; single, blunt hook; West
10	Scissors	McIndoe; Strabismus; suture
11	Bowl	Tracheal dilator

#### **Instrument set, tubal ligation**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Approximator	Childe
2	Clip	Suture, Michel
3	Clip	Towel, Mayo
4	Forceps	Artery, Crile
5	Forceps	Artery, Spencer Wells, 203 mm

6	Forceps	Dissecting, lane, 178 mm; plain, end, 127 mm
7	Forceps	Sponge, Rampleys
8	Forceps	Tissue, Laner; Stiles
9	Knife handle	Surgical, Bard-Parker, No. 4
10	Needle holder	Mayo
11	Needle	Aneurysm
12	Quiver	Removable base, autoclavable, 15cm, 20cm, 25cm, 30cm, 35cm lengths
13	Retractor	Gosset
14	Retractor	Langenbeck, large; Langenbeck, small
15	Retractor	Morris, medium
16	Scissors	Mayo, curved, 127 mm; straight, 127 mm
17	Scissors	Stitch

#### **Instrument set, urology**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Catheter	Assorted sizes, Foley-Tiemann, Ch. 8- Ch. 30
2	Catheter	Assorted sizes, rubber, Tiemann, Brown, Ch. 8- Ch. 30
3	Cystoscope	Simple pattern, Ringleb type, boilable, with rheostat
4	Bougies	Olive ends, 280 mm
5	Introducer	For catheterization, 460 mm
6	Sound metal	Large, Powell's straight, blunt, plain end
7	Sound, metal	Urethral, metal, Otis-Clutton, curved with olive ends
8	Bowl	Lotion, S/S, with cover, 110 mm diameter X 40 mm
9	Box	Instruments, S/S, with cover, 300 x 200 x 50 mm
10	Gallipot	S/S, medium, 75 mm diameter
11	Dish	Kidney, assorted sizes, S/S

### **Instrument set, vasectomy**

<b>Nr.</b>	<b>Description of items</b>	<b>Specifications</b>
1	Forceps	Artery, Halstead, curved; Halstead, straight, 125 mm
2	Forceps	Dissecting, plain, end, 127mm; Treves, 152mm, 1X2 teeth
3	Forceps	Sponge, Rampleys
4	Forceps	Tissue, vasectomy
5	Needle holder	Kilner
6	Scissors	Mayo, straight, 140 mm

### **Maintenance tool kits**

#### **A. Tool kit, carpenter**

1	Level, spirit, 220mm
1	Bevel, rosewood
1	Bit, drill, wood, flat, set. 6pc, metric, 10-25mm
1	Can, oil, for oil stone
1	Chisel, wood, flat, set, 4pc, 6,9,12,25mm
1	Gauge, marking, beech
1	Hammer, cross peen
1	Hammer, Warrington
1	Mallet, carpenters
1	Plane, adjustable, iron
1	Rasp
1	Rule, folding, boxwood, 100m
1	Saw, hand, standard, 600mm
1	Saw, tenon, brass back, 300mm
1	Square, rosewood, 600mm
1	Stone, oil, 200mmX50mmX20mm

- 1 Box, tool, steel, big, 4 trays, cantilever, 550 X 220 X 215mm (l x w x h)
- 1 Gimlet, handled
- 1 Hammer, claw, steel shaft, 570 g
- 1 Punch, nail, 150X5mm
- 1 Saw, pad, with blades
- 1 Screwdriver, flat, blade: 4 mm; shaft: 75mm
- 1 Screwdriver, flat, blade: 6.5 mm; shaft: 150mm
- 1 Workbench, carpenter

**B. Tool kit, electrician and biomedical technician**

- 1 Bit, drill, concrete, set, hammer operated, 3.5, 4.5, 5, 6 mm, with handle
- 1 Hammer, club, 42 x 42 x 100 mm
- 1 Cutter, side, large, Max. size wire, 2.0 mm: L = 210 mm
- 1 Multimeter, basic, digital, Fluke brand
- 1 Screwdriver, flat, insulated, blade; 2.5 mm, shaft, 75 mm
- 1 Screwdriver, flat, insulated, blade; 4.0 mm, shaft, 100 mm
- 1 Screwdriver/mains tester, blade, 4 mm, shaft, 100 mm, 100-500 V
- 1 Stripper, wire, standard, 170 mm
- 1 Knife, trimming, retractable blade
- 1 Pen, marking, waterproof, medium
- 1 Tape measure, steel, 3 m
- 1 Box, tool, steel, big, 4 tray, cantilever, 550 x 220 x 215 mm ( l x w x h)
- 1 Chisel, channelling
- 1 Chisel, cold, 116 mm x 250 mm
- 1 Chisel, cold, cut
- 1 Chisel, floorboard
- 1 Cutter, pipe, 3-30 mm
- 1 File, half round, second cut, 200 mm



- 1 Hacksaw, junior
- 1 Hacksaw, standard, 470 mm
- 1 Light, torch, rubber-coated, 2 batteries, LR 20, 3 V
- 1 Pliers, combination, 203 mm/8"
- 1 Pliers, radio, 165 mm/2.5"
- 1 Pliers, water pump, standard, 225 mm
- 1 Punch, centre, diam.:6 mm, L=115 mm
- 1 Reamer, pipe
- 1 Saw, pad, with blades
- 1 Screwdriver, flat, chubby, blade: 5.5 mm; shaft: 40 mm
- 1 Screwdriver, flat, long shaft, blade: 5.5 mm; shaft: 200 mm
- 1 Screwdriver, flat, screw gripping, blade: 6 mm; shaft: 200 mm
- 1 Screwdriver, Phillips, chubby, No. 2x, Diam: 5.0 mm; shaft: 40 mm
- 1 Screwdriver, Pozidriv, No. 1/75
- 1 Screwdriver, Pozidriv, No. 2, 100 mm
- 1 Spanner, adjustable, medium, 205 mm/8": jaw: 27 in.
- 1 Spectacles, safety
- 1 Wrench, pipe, small, 229 mm/9 "
- 1 Soldering station, 40 watts, 230 V, 50 Hz
- 1 Soldering iron, 60 watts, 230 V, 50 Hz
- 1 Oxygen Analyzer, hand-held
- 1 Electrical safety analyzer
- 1 Tool cart, with shelves and on castors

**C. Tool kit, mason/ plasterer**

- 1 Bevel, adjustable, 75 mm
- 1 Chisel, cold, 150 x 9 mm
- 1 Chisel, cold, 200 x 20 mm

- 1 Float, cross-grain
- 1 Hammer, brick
- 1 Hammer, club, 42 x 42 x 110 mm
- 1 Hammer, comb., double ended
- 1 Jointer brick, long
- 1 Jointer, brick, short
- 1 Knife, putty
- 1 Level, spirit, aluminium, 600 mm
- 1 Level, spirit, aluminium, 75 mm
- 1 Pin, line
- 1 Rule, folding, steel, 100 cm
- 1 Square, all steel, a rule marked 250 mm
- 1 Trowel, plasterer, small
- 1 Trowel, brick, standard blade, width, 275 mm
- 1 Trowel, gauging, 150 mm
- 1 Trowel, plasterer, double hung
- 1 Trowel, pointing, 150 mm
- 1 Trowel, window, 25 mm
- 1 Box, tool, steel, big, 4 tray, cantilever, 550 x 220 x 215 mm ( l x w x h )
- 1 Tool cart with shelves and castor wheels

**D. Tool kit, mechanic/welder/plumber/refrigeration technicians**

- 1 Crimping tool set, For wires: 1.5, 2.5, 6mm
- 1 Cutter, side, large, max size wire:2.0mm; L=210mm
- 1 Pliers, long nose, 170mm
- 1 Screwdriver/tester, 12V, auto-mechanic
- 1 Box, tool, steel, big, 4 trays, cantilever, 550X220X215mm (l x w x h)
- 1 Brush, steel, hand, 290mm; 37mm; 4rows
- 1 Chisel and punch set, 6 pc

- 1 File, half round, second cut, 200mm
- 1 Hacksaw, standard, 470mm
- 1 Hammer, ball peen, 500g/1lb; 350mm
- 1 Hammer, nylon, 280mm; diam: 32mm
- 1 Key, hexagon, metric, set, 9pc, 1.5-10mm
- 1 Machine, drilling, hand, 2 speed, 1-12mm
- 1 Pliers, water pump, standard, 225
- 1 Punch, nail, 150X5mm
- 1 Screwdriver, flat, blade:3.5mm; shaft:75mm
- 1 Screwdriver, flat, blade:5.5mm; shaft:100mm
- 1 Screwdriver, flat, blade:8mm; shaft:250cm
- 1 Screwdriver, Phillips, No. 1X Diam: 4mm; shaft:75mm
- 1 Screwdriver, Phillips, No. 2X Diam: 6mm; shaft:100mm
- 1 Screwdriver, Phillips, No. 3X Diam: 8mm; shaft:150mm
- 1 Spanner, flat, metric, set, 15 pc, 6-32mm
- 1 Spanner, ring/flat, metric, set, 16 pc 7-25mm
- 1 Wrench, self -gripping, Max: 50mm; 1-220mm
- 1 Wrench, socket, set, large, 10-32mm;1/2 square drive
- 1 Wrench, strap, diam: 70-200mm
- 1 Welding outfit; spot welding, arc/electric welding, Oxy-acetylene
- 1 Welding goggles
- 1 Gauge Manifold, charging
- 1 Flaring tools
- 1 Cutter, copper pipes
- 1 Tool Kits Set
- 1 Industrial angle grinder
- 1 4-way ladder, aluminium materials
- 1 Bench magnifier illuminator
- 1 Multi-purpose Bench Clamp

## **Additional Tools and Equipment for Maintenance Workshops**

### **1. Tool kit set**



### **2. Arc welding outfit with accessories and welding helmet**



### **3. Industrial angle grinder**



#### 4. 4-way ladder, aluminium materials



##### Combination Ladder - BS EN131

The ultimate combination of versatility, quality and value, this 4-way ladder converts to a double sided step ladder, extension ladder, extending, free standing step ladder and a stair ladder. Tested to DIN, EN131/4-93 the aluminium extension box sections and stiles make it exceptionally strong and durable. Loading 150kg.

Max. ladder extension 5.5m

Max. extended step height 4.65m

Closed length 2.5m

A stabiliser bar, anti-splay bar and rubberised feet are included to improve safety and stability.

#### 5. Bench magnifier illuminator



Overall dimension when folded down: 430×200×160

Maximum height above bench: 430

Max. reach (centre of bench clamp to centre of lens): 740

Head size: 190×160×85

G clamp capacity: 60

## 6. Multi-purpose bench clamp



vices



### dimensions

<i>type</i>	<i>overall length</i>	<i>jaw width opening</i>
short vice	210	54/90
long vice	280	54/160
PCB vice	270	56/175

## SOPHISTICATED AND COMPLEX EQUIPMENT

### General Notes:

1. Electrical medical devices must be compatible with Sierra Leone's electrical power source; 230 V, 50 Hz, adaptable to humidity, % RH up to 70% and as much as practical, located in an AC room;
2. Electrical plugs must be 3-prong BS 1363 for single-phase, 50 Hz AC power;



3. The use of extension sockets to connect and power medical devices, especially high amperage, must be avoided;



4. All sophisticated and complex medical equipment and devices (electronic medical devices) shall use adequate capacity automatic voltage regulator (AVR) to protect the electronic circuitry against unreliable voltage supply and anomalies;





5. Isolation transformer must be used to separate the electrical circuitry of ICU, OTs and other similar wards using sophisticated medical devices to isolate high-frequency equipment, i.e., ESU, from affecting other medical devices like multi-parameter patient monitor;
6. Branch circuits for Airconditioning Units and Fluorescent lamps with choke shall be separated from the medical device electrical circuitry;

7. Specifications are formulated in generic terms and may be expanded and upgraded depending on the specific needs and requirements. Likewise, the specifications may be updated as technology is evolving and improving with time.

8. STANDARDS AND SAFETY

- X-ray unit should be type approved by AERB (Atomic Energy Regulatory Board)
- It should also be FDA or CE-approved product
- Electrical safety conforms to the minimum standards for electrical safety IEC-60601 / IS-13450
- All products shall have the CE Mark, and a supplier should provide a US FDA or European CE certificate of conformity.
- Comprehensive guarantee for 5 years of the complete system

**A. General and common equipment:**

Nr.	Nomenclature/Description	Specifications
35.	OT light, ceiling mounted 	<ul style="list-style-type: none"> <li>• &gt;160 K lux at 2 m, light field size: 250-300 mm;</li> <li>• Service lifespan: approximately 50K hours;</li> <li>• With brightness adjustment; colour rendering index: ~ 94;</li> <li>• 2 lamp head/dome, height adjustment not less than 115cm; and</li> <li>• Satellite lamp head same as the main lamp head, handle detachable and sterilizable.</li> </ul> Photo: <a href="https://www.pinterest.com">pinterest.com</a>
45.	Scale, weighing and height, physician, adult, 6-180 kg; metric  Photo: <a href="https://www.sky.garden.com">sky.garden.com</a> Photo: <a href="https://www.wornerlab.en.alibaba.com">wornerlab.en.alibaba.com</a>	<ul style="list-style-type: none"> <li>• Mechanical adult scale, beam type, for use up to 180kg with 100g precision, with hand pole;</li> <li>• Beam-type mechanical scale for adults;</li> <li>• Measuring range: from 5 up to a minimum of 180kg;</li> <li>• Minimum graduation: 100g;</li> <li>• Reading time in seconds: &lt; 15 seconds readout in metric (kg);</li> <li>• Display: easily readable in low light working situations, black coloured numbers on a silver surface, and can be read from both sides;</li> <li>• With easy zero adjustment possibility;</li> <li>• With stabilizing mechanism for faster reading of results;</li> <li>• Adjustable feet allow for horizontal levelling;</li> <li>• Hand pole attached; and</li> <li>• Height measuring rod included.</li> </ul>

**Commented [SD4]:** All photo credits should be in the description column under the photo.





Photo: affordablescale.com

Materials:

- Mechanics and other vital parts are made of rust-proof materials;
- Ferrous parts shall be treated with a rust inhibitor against corrosion;
- Plastic parts shall be UV resistant, preferably with acrylonitrile butadiene styrene (ABS) or similar;
- Body: metal only (stainless steel or epoxy coated steel);
- Calibration screw: stainless steel;
- Body and mechanics are splashproof and shock resistant, and the design allows rough handling.
- Smooth surface and finishing allow easy cleaning and disinfection; and
- Easy maintenance and repair in low-tech settings are possible.

1. Autoclave, sterilizer, steam; 75 li; horizontal and vertical;

Also, gravity and drying cycle for non-automatic

Photo: globalsources.com



- Front loading floor standing type autoclave, with a pre-vacuum steam sterilizer, single door, electrically heated, complying with the requirements of BS EN 285 and DHSS HTM 2010;
- The sterilizer framework and other metal parts shall be in stainless steel to eliminate corrosion and last a lifetime. The sterilizer front and inspection door shall be in stainless steel.
- The chamber shall be horizontal cylindrical or rectangular construction with a capacity of 75 L and constructed with an outer jacket;
- The chamber and jacket shall be constructed of grade 316 L solid S/S, approved working pressure of 45 PSIG (3 bars), horizontal, with pressure and temperature gauge, and stainless steel mesh basket, with a secure door lock, electronic or other types of sterilization for the control cycle;
- The working temperature; 121-134 °C, 1.2-2.1 kg/cm<sup>2</sup>;
- The safety features include a pressure control switch, door lock and safety catcher, overheat protection and safety valve, an emergency exhaust switch preventing the cycle from starting until the door is locked and sealed and from opening until chamber pressure is at atmospheric, fully automatic;
- Control panel: All functions shall be monitored by a microcomputer with the self-diagnostic feature. All phases of the sterilization cycle shall be automatically controlled with cycle status indicating lights shown in the control panel. Cycle completion shall be indicated visually and audibly;
- The display window shall display time, temperature, pressure, vacuum and alarm conditions. Fully automatic (multiple cycles) PLC control panel with an online printer; and



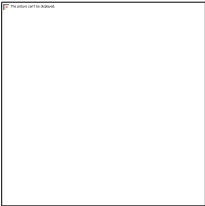

















		<ul style="list-style-type: none"> <li>Supplied with Bowie-Dick test paper, loading rack/basket x 1 set; Electric, 415/230V, 50 Hz, 3-phase</li> </ul>
2.	<p>Autoclave, sterilizer, steam; table-top, fully automatic and semi-automatic option; 18 L, 30 -50 L</p> 	<ul style="list-style-type: none"> <li>Tripled-wall insulation;</li> <li>Horizontal chamber, 20-25 L;</li> <li>Quality AISI 304 SS chamber, outer parts S/S and powder coated;</li> <li>Fully automatic (multiple cycles) PLC control panel with online printer;</li> <li>Fitted with a heavy-duty water ring with a vacuum pump; Air expulsion through purging; and</li> <li>Coloured touch screen HMI System. Supplied with Bowie-Dick test paper, Loading rack/basket x 1 set; electric, 415/230V, 50 Hz, 3-phase</li> </ul> <p>Photo: shinova.com</p>
3.	<p>Balance, analytical, laboratory</p> 	<ul style="list-style-type: none"> <li>Weighing capacity ranges from 54-520 g and has a readability of 0.005 mg - 0.1 mg;</li> <li>Analytical balance sensitivity requires it to be protected by a draft shield or an enclosure;</li> <li>Aluminium alloy body material and stainless steel platter with clear glass wind shield;</li> <li>Large quantities of materials can be weighed;</li> <li>LCD with a backlight makes it easy to read in all lighting conditions;</li> <li>Electromagnetic Force Compensation technology; overload protection, bubble level adjustment, under hook, full capacity subtraction, check weighing, percentage weighing, piece counting and multi weighing unit conversion between g/mg/ct/oz;</li> <li>Can operate on AC and DC adapter;</li> <li>Certified calibration weight supplied as standard; and</li> <li>It can be connected to the RS232 interface.</li> </ul> <p>Photo: nextdayscience.com</p>
4.	<p>Bed, Hospital adult, two sections</p> 	<ul style="list-style-type: none"> <li>Bed, measuring 2000 (l) x 900 (w) x 600 (h) mm;</li> <li>With backrest adjustable up to 30° in 3 steps of approximately 10°;</li> <li>Mesh size and reinforcement of bed to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm;</li> <li>Bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness;</li> <li>Square section ends to be fitted with rubber or plastic bungs;</li> <li>The height of vertical head and foot sections is approximately 1100 mm and 900 mm, respectively. Epoxy finish.</li> </ul>



		Photo: medicalexpo.com
5.	Bed, Hospital adult, with side rails 	<ul style="list-style-type: none"> <li>• Bed, measuring 2000 (l) x 900 (w) x 600 (h) mm;</li> <li>• With a backrest adjustable up to 30° in 3 steps of approximately 10°;</li> <li>• Mesh size and reinforcement of bed to be suitable for a load of 180kg. Maximum mesh size 40 mm x 40 mm</li> <li>• The bed frame is made of mild steel tubular or rectangular sections of approximately 40 mm x 40 mm with a minimum 2 mm thickness;</li> <li>• Square section ends to be fitted with rubber or plastic bungs;</li> <li>• The height of the vertical head and foot sections is approximately 1100 mm and 900 mm, respectively;</li> <li>• Epoxy finish; and</li> <li>• A collapsible slide rail with a spring hook security system.</li> </ul> Photo: hospitalbedscn.com
6	Bed, Hospital adult, intensive care 	<ul style="list-style-type: none"> <li>• Four sections Fowler bed, with all welded epoxy-painted main frame constructed from rectangular section steel tube of approximately 40 mm x 40 mm with a minimum 2 mm thickness;</li> <li>• Adjustable backrest and leg section using two independent cranks with retractable handle;</li> <li>• Adjustable foot section using a rack device;</li> <li>• Removable chrome plated bed ends fitted with 10 mm laminated plastic panels;</li> <li>• Platform fitted with epoxy-painted steel weld mesh in four sections.</li> <li>• The bed is mounted on four 200 mm. castors;</li> <li>• Two are fixed at the head end, and two can swivel with independent brakes at the foot end; and</li> <li>• Bumpers at all four corners.</li> </ul> Photo: indiamart.com
7.	Bed, Hospital, for children with slide side rails 	<ul style="list-style-type: none"> <li>• Bed, measuring 650 (w) x 1400 (l) mm; 1000 mm high;</li> <li>• With removable and adjustable (5-90°) backrest/board, footboard, and steel tubing vertically adjustable/sliding side rails with safety lock;</li> <li>• Steel tubing frame, mattress support made of weld mesh, with one intermediate tubing support, suitable to fit up to 150 mm thick mattress; and</li> <li>• Epoxy coating or Chrome plated steel finish.</li> </ul> Photo: medik-medical.com

<p>8. Bed, delivery</p> 		<ul style="list-style-type: none"> <li>• Three-sectioned bed complete with three sectioned, impervious covered, 100mm deep anti-static mattress;</li> <li>• Frame made of tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2mm thickness;</li> <li>• The frame is mild steel with an epoxy coating or stainless steel;</li> <li>• Square section ends to be fitted with rubber or plastic bungs;</li> <li>• Features include the ability to achieve rapid Trendelenberg and sitting position;</li> <li>• Mattress section to be removable;</li> <li>• Adjustable bracket to raise to approximately 70°;</li> <li>• Accessories include detachable side rails, lock-in lithotomy poles with straps, a deep SS swab receptacle on a sliding bracket and an IV pole; and</li> <li>• Approximate size 1900 (l) x 800(w) x 800(h) mm; for stability reasons, the width is not to be less than 800 mm.</li> </ul> <p>Photo: hhao-tech.com Photo: supply.unicef.org</p>
<p>9. Bed, manual, general, hospital</p> 		<p>Dimension approximate L 1240x W 1000x H 450-720 cm, made of stamping frame, steel mattress base with epoxy, polyester powder coated and baked finished, resistant to chipping and scratching, bed head/foot board made of ABS plastic or equivalent, washable and removable;</p> <p>Height adjustable, backrest lifting angle 0-80 degree, knee-rest lifting angle, 0-40 degree, supplied with I.V. Rod, collapsible type guard rails cross-over overbed table plate caster wheels, industrial type approximately 5" dia. with brakes., supplied with mattress 4", washable.</p> <p>Photo: medicalhospitalbed1.sell.everychina.com</p>
<p>10. Bed, orthopaedic, traction</p> 		<ul style="list-style-type: none"> <li>• Divided adjustable leg section, epoxy coated mild steel frame work and 4 perforated section top;</li> <li>• Removable high-quality ABS head &amp; foot panels, bumper;</li> <li>• Protection at four corners. S/S orthopaedic attachment (Fowler Type); capable of reverse Trendelenburg function to retract from both sides, with an extensible retractile retractor, with overbed table board, 4-crank mechanically operated; backrest, knee rest, reverse Trendelenburg and raise; and</li> <li>• With medical record slot, drainage bag holder, I.V. holder, trapeze handle and chain, side rail, mattress, 8" thick, fixer set, safety stirrup with Velcro with caster wheels and side rails.</li> </ul> <p>Photo: indiamart.com</p>
<p>11. Bilirubin meter</p>		<p>Platform: bench-top, open, fully automatic system Suitable for intensive care, emergency departments or other low-</p>





 <p>Photo: <a href="http://supply.unicef.org">supply.unicef.org</a></p> <p>Drager jaundice meter JM-105; <a href="http://drager.com">drager.com</a></p>		<p>volume settings in hospitals; With digital alphanumeric display and integrated printer. Accuracy of measurement, approximately: 5%</p> <p>Sample type: whole blood, volume: 10ul Analysis time: 3 seconds Data management is complete with built-in software and the possibility to print or send data to a PC. Quality control flags abnormal results and auto-calibration. Automated calibration and self-diagnosis Power requirements: 230V/50Hz, with voltage surge protection Energy saving mode (stand by) after 30 minutes The equipment tolerates harsh environments, such as humidity up to 80% and operating temperatures of 15 °C to 35 °C</p> <p>Supplied with 1 x set of standard accessories, consumables and parts required to operate the equipment: CD with the user manual (English) 1 x thermal paper roll 100 x haematocrit microcapillary tubes 1 x plate of capillary sealing plasticine Fuse kit AC power cable Dust cover</p>
<p>12. Bowl, kick, with stand and anti-static castors</p> 		<ul style="list-style-type: none"> <li>• 25-30 cm diameter bowl, manufactured from stainless steel 304, and</li> <li>• Mounted on 3-4 castors diameter 40 mm diameter.</li> </ul> <p>Photo: <a href="http://healthandcare.co.uk">healthandcare.co.uk</a></p>
<p>13. Cabinet, instruments, metal</p> 		<ul style="list-style-type: none"> <li>• Glassdoor, approximate size 750 (l) x 400 (w) x 1700 (h) mm;</li> <li>• Instrument cabinet, metal frame, double, glass doors;</li> <li>• Frame of 3mm mild steel</li> <li>• Sheet metal parts with epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity;</li> <li>• With 4 adjustable hardened glass shelves of 6 mm thickness. Dustproof; and</li> <li>• Door handles with security lock and 2 keys.</li> </ul> <p>Photo: <a href="http://medicalexpo.com">medicalexpo.com</a></p>
<p>14. Centrifuge, laboratory, basic, serology, 24 x 5 ml</p>		<ul style="list-style-type: none"> <li>• Bench top type with an adjustable speed of up to 6000 rpm;</li> <li>• Timer 1-99 minutes</li> <li>• Lid locking and holding, emergency lid lock release</li> <li>• Casting stainless steel or coated steel</li> </ul>

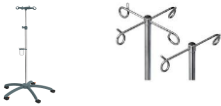

		<ul style="list-style-type: none"> <li>• Power requirements 230V 50Hz, with voltage surge protection</li> <li>• Aerosol-proof lids for rotor buckets</li> </ul> <p>Supplied with</p> <ul style="list-style-type: none"> <li>• 1 x Swing-out rotor, 24x5ml</li> <li>• 4 x Bucket covers</li> <li>• 4 x centrifuge buckets</li> <li>• Instructions for use, preventive maintenance and troubleshooting in English</li> </ul> <p>Photo: <a href="http://supply.unicef.org">supply.unicef.org</a></p>
15.	<p>Centrifuge, laboratory, basic, manual, 4 -placer</p> 	<ul style="list-style-type: none"> <li>• Hand-operated; Aluminum base; Dismountable aluminium gear structure,</li> <li>• Shaft maximum speed 3000 rpm; Bench clamp with adjustable screw (0 to 40mm); Swing-out rotor for 4 x 15 ml conical tubes (90° ) 4 aluminium buckets for test tubes.</li> </ul> <p>Supplied with</p> <p>24 x Glass, conical bottom tubes fitting the rotor</p> <p>Photo: <a href="http://profitab24.com">profitab24.com</a></p>
16.	<p>Centrifuge, hematocrit</p> 	<ul style="list-style-type: none"> <li>• For haematocrit capillary tubes (items S0001379 and S0001380);</li> <li>• Fixed speed approximately 13000rpm; Timer 1-99 minutes Automatic brake and lid interlock; Casting stainless steel or coated steel; and</li> <li>• Power requirements 220VV 50 Hz, with voltage surge protection.</li> </ul> <p>Supplied with:</p> <p>Rotor with capacity for 24 capillary tubes of 75 mm length</p> <p>Photo: <a href="http://profitab24.com">profitab24.com</a></p>
17.	<p>Cot, baby (bassinette), hospital-type</p> 	<ul style="list-style-type: none"> <li>• Epoxy coated metal frame. Stand size approximately 1200(h) x 880(l) x 450(w) mm. Plexiglass basket size approximately 700(l) x 350(w) x 350(h) mm;</li> <li>• Four swivel casters with two with locking attachments; and</li> <li>• To include a 75 mm mattress which fits the basket size. The mattress should have a waterproof, urine-proof cover–high-density foam filling; with a minimum density of 30 kg/m3.</li> </ul> <p>Photo: <a href="http://supply.unicef.org">supply.unicef.org</a></p>



18.	<p>Counter, differential, cell, manual</p> 	<ul style="list-style-type: none"> <li>• Counts up to 100 cells, 3-digit readout</li> <li>• Manual, mechanical 5-unit counter with totalizer for differential blood cell count;</li> <li>• In the example, the keys of Leucocytes are Baso, Eosin, Neutro, Lympho and Mono;</li> <li>• Above each key, the name and picture of a particular cell are indicated;</li> <li>• The audio signal indicates reaching one hundred cells counted;</li> <li>• A separate lever resets all figures to zero; and</li> <li>• Soft key touch and convenient key placement minimize fatigue</li> </ul> <p>Photo: microscopeinternational.com</p>
19.	<p>Cupboard, drugs</p> 	<ul style="list-style-type: none"> <li>• Lockable storage for stock supplies of drugs and medicine for ward use. Made of sheet metal, epoxy coating finish, minimum 1 mm sheet metal with reinforcement for rigidity;</li> <li>• Suitable for wall mounting, including wall fixtures;</li> <li>• Overall dimensions 900mm (l) x 300mm (w) x 900mm (h);</li> <li>• The cupboard to be in two separate sections, divided horizontally, each section with two doors; and</li> <li>• The upper section</li> <li>• prepared for tablet and dangerous drugs storage, and the lower is for 500ml 5 L stock bottles of medicines.</li> </ul> <p>Photo: narang.com</p>
20.	<p>Diagnostic set</p> 	<ul style="list-style-type: none"> <li>• It is comprised of a standard type ophthalmoscope and otoscope with 5 nylon specula;</li> <li>• A large battery handle;</li> <li>• Nasal speculum;</li> <li>• Laryngeal mirrors with holder;</li> <li>• Tongue depressor, including battery; and</li> <li>• Two lamp spares.</li> </ul> <p>Photo: vitcom-medical.com</p>
21	<p>Disinfector/sterilizer, boiling water type (instrument sterilizer)</p> 	<ul style="list-style-type: none"> <li>• Electric, boiling type, table-top, 230V, 50Hz heating element, water immersed type, with drain cock and tray, SS, single-walled, not more than 1 kW, thermostat controlled, ON/OFF switch with built-in circuit breaker, pilot lamp, ON, OFF and stand-by mode lamp.</li> <li>• The seamless shell and lever-operated lid are fitted with a full-proof mechanism to control excessive steam escape and restrict condensate within the shell. With tray, 15-20 L capacity.</li> </ul> <p>Photo: indiamart.com</p>


<p>22. Distiller, water, laboratory, 2 L/h with tank</p>  <p>Photo: directindustry.com Photo: medicalexpo.com</p>	<ul style="list-style-type: none"> <li>• An automatic water purification system;</li> <li>• Operates from raw potable feed water, 3 bar to 7 bar, 4 °C to 35 °C;</li> <li>• Output conductivity, approximately 2 uS/cm, at 25 °C;</li> <li>• Tank capacity is approximately 4L;</li> <li>• The unit indicates at least power on/off, standby and process, tank level;</li> <li>• Thermostatic control and overheat protection;</li> <li>• Thermostatic low water cut-off protects the heating element;</li> <li>• Free-standing or wall mount; and</li> <li>• Power requirements 230V/50Hz, with voltage surge protection.</li> </ul> <p>Supplied with:</p> <ul style="list-style-type: none"> <li>• 1 x Set fixation materials for wall-mount;</li> <li>• 1 x Set of hoses cartridges and filters;</li> <li>• 2 x Dichloride filter with the first filling;</li> <li>• 2 x Spare filling for dichloride filter;</li> <li>• 2 x Phosphate cartridge with the first filling;</li> <li>• 2 x Spare filling for phosphate cartridge;</li> <li>• 2 x Pre-filter 1 um, with fine filter candle;</li> <li>• 2 x Spare candle for pre-filter; and</li> <li>• Instructions for use, preventive maintenance and troubleshooting in English.</li> </ul>
<p>23. Examining couch; 2 sections, with pad</p> 	<ul style="list-style-type: none"> <li>• Table, examination, 2 section (knock-down construction): 1800 mm (l) x 750 mm (w) x 760 mm (h);</li> <li>• Folding table with top in two sections;</li> <li>• Drop leaf section (headpiece) 490 mm (l) x 750 mm (w);</li> <li>• Removable and adjustable by ratchet type frame;</li> <li>• Frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum of 2 mm thickness;</li> <li>• With crossbars for stability;</li> <li>• Square section ends to be fitted with rubber or plastic bungs; and</li> <li>• Sheet metal parts minimum 1.5 mm thickness.</li> </ul> <p>Photo: indiamart.com</p>
<p>24. Examination couch with lithotomy poles, folding, 2 sections, with pad</p>	<ul style="list-style-type: none"> <li>• Table, examination, 2 section (knock-down construction), 1800 mm (l) x 750 mm (w) x 760 mm (h);</li> <li>• Folding table with top in two sections;</li> <li>• Drop leaf section (headpiece) 490 mm (l) x 750 mm (w);</li> <li>• Removable and adjustable by ratchet type frame;</li> <li>• Frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2 mm thickness;</li> </ul>









		<ul style="list-style-type: none"> <li>• With cross bars for stability;</li> <li>• Square section ends to be fitted with rubber or plastic bungs;</li> <li>• Sheet metal parts minimum 1.5 mm thickness;</li> <li>• With lithotomy poles covered with polyurethane-filled padding; and</li> <li>• Padding has to be upholstered with washable plastic material.</li> </ul> <p>Photo: <a href="http://clinicaid.com.ng">clinicaid.com.ng</a></p>
<p>25. Extractor, vacuum, manual, complete set</p>	  <p>Photo: <a href="http://supply.unicef.org">supply.unicef.org</a> Photo: <a href="http://naugramedical.com">naugramedical.com</a></p>	<ul style="list-style-type: none"> <li>• Vacuum extractor system to assist vaginal deliveries;</li> <li>• A hand-operated suction pump supports the vacuum extraction;</li> <li>• All parts can be disassembled and are autoclavable at 121 °C;</li> <li>• The system is supplied as a complete set with: <ul style="list-style-type: none"> <li>2 x Bird type anterior suction cup, stainless steel: diameter 50 and 60mm rounded edges;</li> <li>2 x Soft vacuum extractor cups "silicon-cup": diameter 50mm and 60mm;</li> <li>2 x Extraction handle, stainless steel;</li> <li>1 x Cover plug for collection bottle with 3 holes;</li> <li>1 x Connector angled, chrome plated;</li> <li>1 x Connector angled with screw valve, chrome plated screw, cap and gasket;</li> <li>1 x Vacuum gauge (0 to -100 kPa/- 800mmHg) with straight connector, chrome plated;</li> <li>1 x Vacuum bottle, plastic, 500ml;</li> <li>1 x epoxy-coated basket for the bottle and the suction pump;</li> <li>2 x Tube, silicone transparent, inner/outer diameter 6/11mm, length 50 and 150cm;</li> </ul> </li> </ul> <p><b>Items supplied with:</b></p> <ul style="list-style-type: none"> <li>1 x Spare vacuum bottle, plastic, 500ml</li> <li>1 x Spare tube, silicone transparent, inner/outer diameter 6/11mm, length 300cm;</li> <li>1 x Spare gasket for the screw valve;</li> <li>20 x Bottom plate of polypropylene for stainless steel cups, 10 for each size, 50mm and 60mm</li> </ul>
<p>26. Generator, electric; AC, 50 Hz</p>		<ul style="list-style-type: none"> <li>• 50-100 KVA, 3-phase, 415/380/230 V, 50 Hz;</li> <li>• Continuous rating;</li> <li>• 0.8 power factor;</li> <li>• 4-6 cylinders in line water-cooled engine;</li> <li>• Four-stroke cycle;</li> <li>• Induction system;</li> <li>• Naturally aspirated engine;</li> <li>• Direct injection pump;</li> <li>• Diesel engine;</li> </ul>



		<ul style="list-style-type: none"> <li>• Mounted on skid base;</li> <li>• Directly coupled alternator;</li> <li>• Brushless, switch start;</li> <li>• Complete with gauges/meters in the LED control panel like a phase voltmeter;</li> <li>• Frequency;</li> <li>• Amperes, running hour, AVR controlled; and</li> <li>• Noise level &lt; 90 dB, Euro 4 compliant.</li> </ul> <p>Photo: <a href="http://energygeneratorsales.co.uk">energygeneratorsales.co.uk</a></p>
27	<p>Infusion stand/ Drip stand, double hook, adjustable height, on castors</p> 	<ul style="list-style-type: none"> <li>• Height adjustable 1200-2200 mm, wide stance base with castors;</li> <li>• Double or multiple hook rod includes a positive stop to avoid disengagement from the base rod;</li> <li>• With metallic adjustable locking device;</li> <li>• Epoxy finish;</li> <li>• Hook and rod made of chrome plated metal or stainless steel.</li> </ul> <p>Photo: <a href="http://provita.com">provita.com</a></p>
28.	<p>Infant radiant warmer</p>  <p>Photo: <a href="http://phoenixmedicalsystems.com">phoenixmedicalsystems.com</a></p>	<ul style="list-style-type: none"> <li>• Mobile fixed-height overhead radiant warmer;</li> <li>• Sturdy and stable construction, on 4 antistatic swivel castors, 2 with brakes;</li> <li>• Fixed-height overhead radiant heater with integrated examination light;</li> <li>• Overhead surface size, approximately 0.75 x 0.90 m (w x l);</li> <li>• Fixed height, approximately 1.80m;</li> <li>• Warmer column mounted on the side of the wheel-base allows for positioning over bassinet/cradle;</li> <li>• Side handles facilitate moving and positioning;</li> <li>• Overhead examination light 2 x 40W halogen/LED spot, with dimming function;</li> <li>• Heating element: ceramic emitter with a parabolic reflector, protected by the metal grid;</li> <li>• The vertical column integrates controls and displays;</li> <li>• Servo temperature control electronic (thermistor-based or other electronic-based circuits);</li> <li>• Skin temperature pre-set drives heater output in servo mode;</li> <li>• Pre-set skin temperature, range approximately 32 to 38C, increments 0.1C;</li> <li>• Accuracy skin temperature monitoring sensor +/-0.2C;</li> <li>• Easy switch between servo and manual mode;</li> <li>• Manual mode, pre-set heater output 0 to 100%, in 10% increments;</li> <li>• Large LED display shows: Heater output pre-set in Watt Mode (servo or manual);</li> </ul>


		<ul style="list-style-type: none"> <li>• Pre-set skin temperature;</li> <li>• Actual skin temperature;</li> <li>• Air temperature System reports, with audio-visual alert on operational status, malfunctions (heater, skin sensor), skin temperature (+/-0.1C of pre-set value); and</li> <li>• Power requirement: 220V/50Hz; Power consumption, approximately 800W.</li> </ul> <p><b>Supplied with:</b></p> <ul style="list-style-type: none"> <li>1 x Reusable skin temperature probe, including connecting cable and plug</li> <li>2 x Spare reusable skin temperature probes include connecting cable and plug</li> <li>1 x Spare ceramic heating element</li> <li>2 x Spare halogen bulbs (40W)</li> <li>1 x Set of spare fuses</li> <li>1 x Instructions for assembly, use and maintenance English, French and Spanish</li> </ul>
29.	<p>Light, examining, mobile</p> 	<ul style="list-style-type: none"> <li>• 230v, 50 Hz;</li> <li>• 10-45 watts LED bulb, white light, 12,000 lux minimum at 1 meter;</li> <li>• Gooseneck type, chromed steel structure;</li> <li>• Cable length 200cm;</li> <li>• Aluminium/chrome-plated base with 4-5 castor wheels of 50mm, anti-static;</li> <li>• Cold light;</li> <li>• Color temperature: 4750 °K</li> </ul> <p>Photo: <a href="http://hbds-denta-com.sell.everychina.com">hbds-denta-com.sell.everychina.com</a></p>
30.	<p>Mattress for hospital bed, adult</p> 	<ul style="list-style-type: none"> <li>• Length and width to match the bed size of the hospital bed for adults;</li> <li>• Thickness 12,5cm;</li> <li>• The mattress should have a waterproof, urine-proof cover; and</li> <li>• High-density foam filling; minimum density of 30kg/m3.</li> </ul> <p>Photo: <a href="http://mobilityhire.com">mobilityhire.com</a></p>
31.	<p>Mattress for hospital beds, for children</p> <p>-Similar to the mattress for adults</p>	<ul style="list-style-type: none"> <li>• Length and width to match the bed size of the hospital bed for children;</li> <li>• Thickness 125 mm;</li> <li>• The mattress should have a waterproof, urine-proof cover;</li> <li>• High-density foam filling; and</li> </ul>

		<ul style="list-style-type: none"> <li>• A minimum density of 30kg/m<sup>3</sup>.</li> </ul>
32.	<p>Microscope, laboratory, binocular, LED</p>  <p>Photo: indianmart.com</p>	<ul style="list-style-type: none"> <li>• Microscopic examination of clinical specimens in haematology, microbiology, cytology and pathology laboratories. (Include; blood smears, wet urine preparation, gram stains, cultures and tissues) upright bench-top microscope with revolving 30-degree inclined binocular tube;</li> <li>• Binocular eyepiece: with the flexibility to use in an upper and lower position, an ergonomic viewing angle of at least 15° , a tube rotatable through 360° , angle of 30° ;</li> <li>• Eyepieces: Focusable, paired, high-quality, achromatic, wide field, 10x (FN 20) magnification with inter-pupillary distance - and one with diopter adjustment;</li> <li>• Retractable eye guards;</li> <li>• Area of stage: 140 mm (w) x 135 mm (d); travel range: 75 mm (w) x 30 mm (d). Condenser: Abbe with iris diaphragm aperture, 0.9/1.25 NA;</li> <li>• Illumination: LED illuminator, luminous flux at least 300 lm. Operating hours: At least 20,000 hrs;</li> <li>• Single slide holder. Coarse and fine focusing: 0.3mm/rotation</li> <li>• Objectives: full plan-achromatic , 4x (0.10 NA), 10x (0.25 NA), 20x (0.40 NA), 40x (0.65 NA), 100x (1.25 NA, oil);</li> <li>• Observation by Bright field and with a blue filter;</li> <li>• Brightness control 0 to 100 % (linear). Range of magnification 40 to 1000x;</li> <li>• Reverse angle quadruple revolving nose-piece, with distinct click-stop, with rubber grip for easy handling reverse angle quadruple revolving nose-piece of at least 4 positions, with distinct click-stop and a rubber grip for easy handling all optics anti-fungal treated; and</li> <li>• Power requirements 110-240V / 60Hz-50Hz, with voltage surge protection (adapted voltage and plugs to those used in the importing country on request.) operation: 10° C to 40° C, air humidity max. 75% at 35° C.</li> </ul> <p>Supplied with:  1 x Lens cleaning kit consisting of lens cleaning tissue, cleaning solution, and dust blower.  Set of colour filters: blue, yellow and green.  1 x Power cord.  1 x Dust cover.</p>
33.	Nebulizer; ultrasonic	<ul style="list-style-type: none"> <li>• Electric, 220V, 50Hz, piston or diaphragm type positive pressure pump motor, ultrasonic frequency: at least 1.7 MHz + 10%, mist particle: approximately 1-5 microns;</li> <li>• Nebulizing volume: approximately 1-5 ml/min + 10%;</li> </ul>



		<ul style="list-style-type: none"> <li>• Water level alarm: automatically nebulization stop and warning light in case of water level decreasing in the reservoir;</li> <li>• Bacteria filter: filtered down to 0.3-micron bacteria; and</li> <li>• Floor stand: stainless steel or PVC powder coated, 5-wheels roller-stand with complete accessories and spare filters, portable, with casing</li> </ul> <p>Photo: resto-medical.com</p>
34.	<p>OT light, mobile</p> 	<ul style="list-style-type: none"> <li>• With castor wheels, anti-static, 230 v, 50Hz and 24 V DC; and</li> <li>• LED bulbs, 1-2 light head/dome with handle detachable and sterilizable, shadow-less reflector and diffuser, parabolic, colour-correcting, 90 K-120 K lux minimum at 1 meter; white light/daylight; temperature @ 2 °C.</li> </ul> <p>Photo: technomedindia.org</p>
36.	<p>Oxygen Concentrator</p> 	<ul style="list-style-type: none"> <li>• 230v, 50 HZ, 3-prong plug, on castor anti-static wheel, single flow meter adjustable up to 10 LPM range or higher and humidifier bottle, complete with cover and wing-nut, with alarms audio and visual for low concentration, low pressure and low flow rate, capable of generating up to 93% O<sub>2</sub>, +/- 1%;</li> <li>• 100% duty cycle;</li> <li>• Easily replaceable filters, supplied with spare filters, cannula, and humidifier bottles; and</li> <li>• Noise level, &lt;90 dB; on castor wheels.</li> </ul> <p>Photo: supply.unicef.org</p>
37.	<p>Oven, hot air, laboratory, drying</p>  <p>Photo: medicalexpo.com</p>	<ul style="list-style-type: none"> <li>• Interior: Stainless steel, material 1.4301 (ASTM 304), with all-round deep-drawn ribs to integrate the large-area heating with ceramic-metal sheath;</li> <li>• Insertions: Stainless steel grid shelves, electropolished (sizes 30, 55 and 1060: 1 grid shelf, sizes 75 - 750: 2 grid shelves);</li> <li>• Housing: Textured stainless steel, rear zinc-plated steel, with 4 feet, sizes 450, 750 and 1060 mounted on lockable castors, with mains cable and plug (size 1060 without plug), fully insulated stainless steel door, intuitively operated Single display or twin display (TFT colour display) with touchscreen (from size 450 two leaves);</li> <li>• Fresh air: Admixture of pre-heated fresh air by an electronically adjustable air flap;</li> <li>• Approximately 75 L; and</li> </ul>

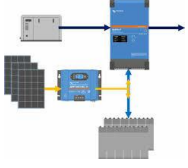


		<ul style="list-style-type: none"> <li>• Power: 230 V, 50 Hz.</li> </ul>
38.	Phototherapy unit; mobile 	<ul style="list-style-type: none"> <li>• Equal light distribution; High intensity;</li> <li>• Quiet, acceptable dB noise of fan;</li> <li>• 5 tube fluorescent lights or LED colour blue;</li> <li>• Stand on castors;</li> <li>• Integral timer attached to count total hours of usage;</li> <li>• Height adjustable: 1200mm~1500mm; Power supply: AC 230V, 50 Hz; Power input: 120VA;</li> <li>• Blue light wavelength: 425nm~ 475nm;</li> <li>• Average radiation of blue light: 500<math>\mu</math> w/cm<sup>2</sup>; and</li> <li>• Timer range of blue light: 0~999h 59min(reset).</li> </ul> <p>Photo: medplan.hu</p>
39.	Resuscitator; manual; adult 	<ul style="list-style-type: none"> <li>• Autoclavable latex or equivalent material, transparent, double layer, with appropriate removable valve;</li> <li>• Inlet valve: adult;</li> <li>• Pressure limited to &lt;35 cm H<sub>2</sub>O;</li> <li>• Silicone resuscitation bag capacity 1 L, transparent silicone face mask, adult, size large and medium;</li> <li>• Airway, adult, size large, medium and small; and</li> <li>• Autoclavable up to 136 °C; with a case.</li> </ul> <p>Photo: supply.unicef.org</p>
40.	Resuscitator; manual; children - similar to the above-	<ul style="list-style-type: none"> <li>• Autoclavable latex or equivalent material, transparent, double layer, with appropriate removable valve;</li> <li>• Air inlet valve: child; Pressure limited &lt;25 cm H<sub>2</sub>O;</li> <li>• Silicone resuscitation bag capacity 500 ml, transparent silicone face mask, adult, size large and medium;</li> <li>• Airway, adult, size large, medium and small; and</li> <li>• Autoclavable up to 136 °C; with a case.</li> </ul>
41.	Resuscitator; manual; infant - similar to the above-	<ul style="list-style-type: none"> <li>• Autoclavable latex or equivalent material, transparent, double layer, with appropriate removable valve;</li> <li>• Air inlet valve: infant; Pressure limited &lt;25 cm H<sub>2</sub>O;</li> <li>• Silicone resuscitation bag capacity 250 ml, transparent silicone face mask, infant. L size and M size;</li> <li>• Airway, adult, L size, M size, S size; and</li> <li>• Autoclavable up to 136 °C; with a case.</li> </ul>




<p>42. Scale, weighing, baby, pan type, electronics/digital, 10 Kg</p>  <p>Photo: walmart.com</p>	<ul style="list-style-type: none"> <li>• Weighing range 0 - 10kg;</li> <li>• Minimum graduation: 5g.;</li> <li>• Accuracy: <math>\pm 5g</math>.;</li> <li>• Display in kilograms;</li> <li>• Functions: automatic switch-off, tare, hold, auto-calibration with each switch-on.;</li> <li>• Large LCD; Reading time max 5 seconds;</li> <li>• Splashproof and shock resistant light-weight body;</li> <li>• Smooth surface/finishing for easy cleaning/disinfection. All vital parts are rust-proof, child-friendly materials;</li> <li>• The display cover is made of durable, transparent plastic. Colour: white or similar: off-white, cream and light grey. Power requirements: 230 V/50Hz Adaptor 12 V dc</li> </ul> <p>ITEM SUPPLIED WITH:</p> <ul style="list-style-type: none"> <li>- User manual with setting and operation instructions and troubleshooting guidance in English, French and Spanish.</li> <li>- Technical manual with maintenance and first-line technical intervention instructions in English, French and Spanish.</li> </ul> <p>ENVIRONMENTAL CONDITIONS:</p> <p>Operating conditions: Temperature: 10° C - +40° C, Humidity: 0-95%</p> <p>Storage conditions: Temperature: -10° C - +65° C, Humidity: 0-95%</p>
<p>43. Scale, weighing, adult and children, electronics/digital, 250 Kg</p>  <p>Photo: adamequipment.co.uk</p>	<ul style="list-style-type: none"> <li>• Digital weighing scale to weigh adults and children, weighing capacity up to 250kg, with 100g graduation. It is powered with customer-replaceable batteries;</li> <li>• Measuring range 0.1 to 250 kg;</li> <li>• Graduation: 100 g;</li> <li>• Accuracy: <math>\pm 100</math> g over the entire range of measurement;</li> <li>• Portability: Easy to carry by a health worker in the field;</li> <li>• The power saving feature automatically turns off the scale after 4-6 minutes of non-use;</li> <li>• Maximum weight 4.0 kg (including batteries); and</li> <li>• Maximum dimensions: 360 mm for length, 400 mm for width and 70 mm for height.</li> </ul> <p>Display:</p> <ul style="list-style-type: none"> <li>• Back-lit LCD or other feature for low light reading (&lt;450 lumens);</li> <li>• Anti-glare screen with high contrast for bright light reading (e.g. &gt;1600 lumens);</li> </ul>





		<ul style="list-style-type: none"> <li>• Fixed weight display occurs within 5 seconds and is maintained for a minimum of 20 seconds after the load is removed or until the next weighing;</li> <li>• Display cover made of UV resistant durable easy to clean material (e.g. plastic) withstanding 30psi without damaging scale, compliant to ISO 877 standard;</li> <li>• Light-coloured foot mat to avoid heating if exposed to direct sunlight;</li> <li>• Durability: Storage parameters: Scale operates within specifications after 12 months of storage in climatic conditions defined as temperature: -20° C - +65° C, Humidity: 0-80%;</li> <li>• Adjustable feet to level the scale, withstanding a load of 300kg</li> <li>• Load cells and their housing are resistant to corrosion (compliant with EN / IEC 60529);</li> <li>• The scale has built-in overload protection that protects the sensitive load cells from overload and stress during transportation;</li> <li>• Compliant with IEC standard 60529, IP53 for water and particle size permeability. Compliant to EN 62262 IK 09 for impact resistance; and</li> <li>• Power sources: Powered with 3-4 AA batteries (customer replaceable). Minimum 5,000 measurements per battery set.</li> </ul>
44.	<p>Scale, weighing, infant, spring type, 25 kg x 100 g</p>  <p>Photo: alibaba.com</p>	<ul style="list-style-type: none"> <li>• Mechanical infant scale, spring type, with round dial, also called 'Salter scale' , for use up to 25kg with 100g precision;</li> <li>• Used for weighing infants in the context of growth monitoring and anthropometric surveys;</li> <li>• Spring type mechanical scale for infants;</li> <li>• Measuring range: 0-25kg;</li> <li>• Readout in metric (kg) only. Minimum graduation: 100g.;</li> <li>• Reading time in seconds: less than 15 seconds.;</li> <li>• Display: Dial diameter between 15 and 20 cm;</li> <li>• Easily readable in low light working situations;</li> <li>• With easy zero adjustment possibility/reset-to-zero (tare) function;</li> <li>• With damping/stabilizing mechanism for faster reading of results;</li> <li>• Fit with 2 hooks/handles, non-removable; Upper hook for fixation and lower hook for attaching weighing trouser or sling.</li> </ul> <p>Materials</p> <p>Mechanics and other vital parts are made of rust-proof materials; Ferrous parts shall be treated with a rust inhibitor against corrosion;</p>













		<p>Plastic parts shall be UV resistant, preferably acrylonitrile butadiene styrene (ABS) or similar;  Hooks: stainless steel or high-grade galvanized steel Dial: metal or plastic (ABS or similar) Body: metal (stainless steel or epoxy coated steel) or plastic (ABS or similar);  Calibration screw: stainless steel or plastic (ABS or similar);  The body and mechanics must be splash-proof, shock resistant and lightweight;  Design must allow rough handling;  Smooth surface/finishing must allow easy cleaning/disinfection;  and  Easy maintenance and repair in low-tech settings must be possible.</p>
46.	<p>Screen, four-fold, with anti-static castors</p> 	<ul style="list-style-type: none"> <li>• Metal framed four-sectioned mobile screen on castors;</li> <li>• Approximate size 1800 mm height;</li> <li>• 4 panels of 500 mm wide;</li> <li>• Frame with chrome plated or epoxy coating finish;</li> <li>• Castors 50 mm diameter; and</li> <li>• Panels to have removable, washable cloth of 35% polyester and 65% cotton.</li> </ul> <p>Photo: ungm.org</p>
47.	<p>Solar power source system; 10-15 KW, 3-phase, 50 Hz; off-grid and Grid-tie</p>  <p>Photo: mpsolar2018.en.made-in-china.com</p>	<ul style="list-style-type: none"> <li>• 10-15 KW 50Hz 3P Solar System Photo Voltaic Hybrid Solar System;</li> <li>• NOTE: This Standard Photo Voltaic Hybrid Solar System is sized X 1.5 bigger (15kWp) to cater for a total load of 10 kW;</li> <li>• Standard 1x10 kW Hybrid PV system;</li> <li>• Photo Voltaic Hybrid Solar System (3- Phase) complete with PV/arrays, support structures, inverters, battery bank, support structure and accessories, DC/AC distribution boards, surge suppressors and lighting arrestors system for 50 Hz.</li> </ul> <p>1.0 Solar Photovoltaic Panels Qty. 54  Cell technology: Monocrystalline; Power Output: 280 (W); Max. Power tolerance: 0/+5(%); Max. System voltage: 31.7 (V); Max. Power current: 8.83 A; Open circuit voltage: 38.8 V; Module efficiency 17%</p> <p>1.1 Inverter Qty.1  DC input; Max. DC Power: 15330 W; Max. Input voltage: 1000V; MPP voltage range/ rated input voltage: 240 V to 800 V/ 600V; Min. input Voltage / Start input voltage: 150 V / 188 V; Max. input current per string input A/ input B 33A/33A; Number of independent MPP inputs/ strings per MPP input 2/ A: 3, B: 3;</p>





	 <p>Photo: victronenergy.com</p>	<p>Output AC; Rated power at 230 V, 50 Hz 15000 W; AC voltage range: 180 V to 280 V; Rated Grid Voltage: 3/N/PE, 230 V/ 400 V; Rated Grid frequency 50 Hz; Maximum short circuit current 0.05 kA; THD &lt; or equal to 3 %; AC power frequency / range: 50Hz, 60 Hz / +- 5 Hz; Max output current/Rated output current: 29 A/21.7A P.F 1; Max efficiency 98 %; Operating temperatures:-25 to +60 deg. Cent.</p> <p>1.2 Robust off Grid &amp; on Grid Inverter C/W Intelligent load and energy management ideal retrofits or modular expansions of single-phase and three-phase systems (IP 54 Degree of Protection); AC input (Utility Grid /</p>
48.	<p>Sphygmomanometer</p>  <p>Photo: medicaldepot.com.ph</p> <p>Photo: medicalonline.pk</p>	<ul style="list-style-type: none"> <li>• Desk-Type, Stand-type (on castors) for aneroid BP Apparatus: Aneroid 4 inches diameter;</li> <li>• Digital and LCD type, cuff washable, cloth materials with velcro; and</li> <li>• Battery powered; 2 x 'AA' or 3 x "AAA"; with casing.</li> </ul>
49	 <p>Sphygmomanometer, CRADLE VSA type for Maternal Care</p> <p>Photo: www.cradletrial.org</p>	<ul style="list-style-type: none"> <li>• Combines the advantages of an automatic blood pressure monitor and auscultatory sphygmomanometer, which provide convenient, accurate and reliable blood pressure measurements;</li> <li>• Valid for low and high blood pressure according to the World Health Organisation (WHO) and British Hypertension Society (BHS) guidelines;</li> <li>• CRADLE VSA includes a novel, in-built traffic light system that alerts health care staff to abnormal readings, recognising hypertension (pre-eclampsia) and shock (bleeding or infection) and alerting them to the need to act. The traffic lights aid effective prioritisation and treatment to support timely detection, referrals and management of obstetric emergencies. It is a portable, handheld, semi-automated device with an in-built battery, which can be charged with a micro-USB;</li> <li>• Weight 157,7g; Dimensions: 167x60 x 41 mm; Supplier: Microlife; and</li> <li>• Supplied with an instruction manual, bulb, cuff, cuff connector, cuff cable, and charging cable.</li> </ul>
50.	<p>Sphygmomanometer, child</p>	<ul style="list-style-type: none"> <li>• Sphygmomanometer (child), aneroid sphygmomanometer;</li> </ul>



 <p>Photo: aliexpress.com</p>		<ul style="list-style-type: none"> <li>• Measures blood pressure non-invasively by displaying the pressure in a cuff wrapped around a patient's arm;</li> <li>• The systolic and diastolic pressure is usually assessed by simultaneously listening to stethoscope-generated Korotkoff sounds generated by arterial blood flow;</li> <li>• They are composed of cloth containing an inflatable bag connected via a tube to a flexible bulb with a valve and integrated manometer needle gauge;</li> <li>• Washable, one-size-fits-all children, cloth cuff with Velcro fastening, reinforced at both ends. The bag is inflated through the flexible bulb connected via a flexible tube. The quick universal connector can easily be connected to all types of inflation bulbs. Tube length 50-80cm;</li> <li>• Inflation bulb with an integrated manometer needle gauge. Gauge graduated 0-300mmHg (min) in 2 (max) mmHg increments, with pressure release valve. +/- 3mm Hg accuracy per BS EN 1060-1 [5]; and</li> <li>• Gauge body to allow recalibration of readings, yet in normal operation be sealed and secure; latex-free; mercury-free</li> </ul> <p>Supplied with: Clear instructions for use/diagrams for assembly in 3 languages (English, French, Spanish) and a list of accessories/parts.</p>
<p>51. Stethoscope, Binaural, complete</p>  <p>Photo: salestores.com</p>		<p>Stethoscope, binaural, complete: A mechanical listening device designed for listening to sounds from the heart and lungs. It comprises a membrane at the listening head connected by a split "Y" tube to the headgear with earpieces placed into the user's ears. Double cup, dual-use (adult and pediatric auscultation) chest piece in stainless steel or chrome plated brass; Adult diaphragm 43-47mm; pediatric diaphragm 28-36mm; Y tube treated rubber or PVC with 8-11mm diameter. Sensitivity from 3.2dB to 26dB in a range from 50 to 1000Hz for cardiology. Sensitivity 8.1dB in a range from 600 Hz to 1,500Hz for pneumology. Arms: stainless steel or chrome brass Removable plastic earpieces. Latex-free</p> <p>Supplied with: Clear instructions for use/diagrams for assembly in English, list of accessories/parts.</p>
<p>52. Stethoscope; Foetal, Pinard</p> 		<p>Monoaural; One end with bell, 50-60 mm diameter; One end flat, 45-60 mm diameter. Unbreakable plastic or aluminium. Length: 140 - 200 mm</p> <p>Supplied with: Clear instructions for use/diagrams for assembly in 3 languages English, list of accessories/parts</p>

		<p>Photo: <a href="http://supply.unicef.org">supply.unicef.org</a></p> <p>Photo: <a href="http://cascadehealth.com">cascadehealth.com</a></p>
53.	<p>Stool, surgeon's, adjustable, anti-static cushion</p> 	<p>Stainless steel; round plywood seat with 30 mm padded conductive cushion, rotates 360°, foot-operated height adjustable between approximately 400 to 650 mm. On 5 anti-static swivel castors.</p> <p>Photo: <a href="http://novak-m.com">novak-m.com</a></p> <p>Photo: <a href="http://medicalexpo.com">medicalexpo.com</a></p>
54.	<p>Stretcher, collapsible</p> 	<p>Foldable emergency stretcher, made in anticorrosive, anodized aluminium with PVC-coated polyester sheet of 1 mm. For a maximum patient weight of 130 kg. Fire retardant, foldable over width, approximately. size (in open position): 2100 (l) x 500 (w) x 140 (h) mm</p> <p>Photo: <a href="http://shopee.ph">shopee.ph</a></p>
55.	<p>Suction machine, portable, mobile</p> 	<p>Electric, 230v, 50hz, 3-prong plug BS, 1-jar, 1 L, table-top, with vacuum pressure gauge, for adult and pediatric (soft) aspiration, with overflow sensor or stopper/valve, piston or diaphragm type. Mobile, on castor wheel; single jar, 2 L minimum. With lift handle for portable and push handle for mobile; with spare aspirator tubing kits and bacteria filters, self-sealing jar cover</p> <p>Photo: <a href="http://mountainside-medical.com">mountainside-medical.com</a></p>
56.	<p>Suction machine, manual; foot-operated</p> 	<p>1 or 2 jars, 1 L-size, table-top, with base and non-slip footing, with a sturdy handle, with vacuum pressure gauge, spare aspirator tubing kits and bacteria filters, self-sealing jar cover</p> <p>Photo: <a href="http://indiamart.com">indiamart.com</a></p>
57.	<p>Table, autopsy</p>	<p>Work surface semi-cylindrical; S/S, water temperature for tap and shower can be adjusted with a mixing valve., work surface dimension approximately 215Wx 75D cm; outside dimension approximately 260Wx 75D x 80H cm. Power: 1.5 KW, 230V, 50 Hz, 1-phase</p> <p>Photo: <a href="http://kugel-medical.de">kugel-medical.de</a></p>

		
58.	<p>Table, Bedside, with locker</p>  <p>Photo: sciencemed.en.emd-in-china.com</p>	<p>To be usable on either side of the bed and to incorporate a cupboard with two shelves, one drawer, and two pull-out slides under the top. Small shelf, towel rail and shoe rail to be incorporated in recess at the back of the locker. Frame made of mild steel tubular or rectangular sections of approximately 25 mm x 25 mm with a minimum 1.5 mm thickness. Sheet metal parts with a minimum thickness of 1mm, epoxy coated. They were mounted on 55 mm castors. Overall size approximately. 460 (l) x 460 (w) x 860 (h ) mm. With an overbed table.</p>
59.	<p>Table, Mayo, with anti-static castors</p> 	<p>Adjustable height with a telescopic column from approximately. 750-1400 mm. Stainless steel construction. Removable tray approximately. 500(l) x 400(w) x 25 (h)mm. With 5 prong base and 60 mm anti-static castors.</p> <p>Photo: supply.unicef.org</p>
60.	<p>Table, operating, theatre, universal, non-hydraulic</p> 	<p>Mechanical, worm and spur gear type, Table top frame and column casting made of stainless CrNi steel, with solid base construction, base cover made of CrNi steel; capable of up and down, Trendelenburg, frame adjustable H 68-96 cm, W 55- 60cm, L 122-188 cm, with central floor locking mechanism, water resistant foot controller; can support 150 Kg, minimum; Pads material: resistant against disinfection treatment</p> <p>Photo: darppon.en.med-in-china.com</p>
61.	<p>Table, operating, major universal, hydraulic</p> 	<p>Mechanical, Five section table top with separate pads of min 50 mm thickness for the head, back, seat and legs; Table top frame and column casting made of stainless CrNi steel, with solid base construction, base cover made of CrNi steel; Pads material: resistant against disinfection treatment; easy manoeuvrable by four castors, approximately 100 mm; lockable central pedal; Height adjustment table top up/down the pedal-operated hydraulic system.</p> <p>Photo: globalsources.com</p>
62.	<p>Trolley, dispensing, with shelves</p>	<p>Tubular or rectangular frame with two fixed SS shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of SS.</p>

		Thickness of tubing 2 mm Size: approximately 600 (l) x 450 (w) x 800 (h) mm.  Photo: nupron.com
63.	Trolley, dressing, with shelves 	Tubular or rectangular frame with two fixed SS shelves, 100 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. Size approximately 600 (l) x 450 (w) x 800 (h) mm. With push handle. All SS sheet metal of 1,5 mm thickness. Complete with; Stainless steel bottle rack; Rectangular, detachable waste bin attached underneath a top shelf. Capacity of waste bin approximately 4 Ls; Stainless steel bowl of approximately 320 mm diameter; capacity approximately 4 Ls  Photo: supply.unicef.org
64.	Trolley, instrument, with shelves 	Tubular or rectangular frame with two fixed SS shelves, 150 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All SS sheet metal of 1,5 mm thickness. Size: approximately 900 (l) x 600 (w) x 800 (h) mm  Photo: medicalexpo.com
65.	Trolley, linen, distribution 	Tubular or rectangular frame with three fixed SS shelves, 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of stainless steel. Thickness of tubing 2 mm. With push handle. All SS sheet metal of 1.5 mm thickness. Size: 900 (l) x 600 (w) x 800 (h) mm  Photo: pinterest.com
66.	Trolley, patient, with removable stretcher 	Trolley frame made of mild steel tubular or rectangular sections of approximately 40mm x 40 mm with a minimum 2mm thickness.  Stretcher size approximately. 2000 (l) x 650 (w) mm. Height of trolley 800 mm.  Frame with chromium-plated or epoxy coating finish, with four free-running, anti-static, swivel castors of 200 mm diameter. Bumpers to all four corners. Drop down side rails, IV pole and oxygen tank holder.  With 9-degree Trendelenburg and 14-degree reverse Trendelenburg tilting mechanism.  Photo: alibaba.com

67.	<p>Trolley, soiled linen, double bag</p> 	<p>The tubular or rectangular frame on 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing of chromium-plated or SS. Thickness of tubing 2 mm. Provision to hang 2 removable collection bags of 450 mm diameter. Collection bags of linen canvas. With one spare bag.</p> <p>Size: approximately 900 (l) x 450 (w) x 950 (h) mm.</p> <p>Photo: medik-medical.com</p>
68.	<p>Trolley, transport, food</p> 	<p>Tubular or rectangular frame with two fixed partitions, SS, 200 mm swivel castors. Frame made of 25 mm round or rectangular tubing SS or mild steel, epoxy powder coat finish. Thickness of tubing 2 mm. Size: approximately 600 (l) x 450 (w) x 800 (h) mm. With push handle. All SS sheet metal of 1.5 mm thickness.</p> <p>Photo: medicalexpo.com</p>
69.	<p>Water bath; 7 L</p> 	<p>Temperature range: from 3 °C above ambient to 100 °C; Variations within the bath 0.1 °C; Equipped with micro agitator homogenizing bath temperature; Stainless steel bath interior and exterior; With overheating protection; Low water level warning. Power requirements 230V, 50 Hz, with voltage surge protection. Supplied with: A 08 050 Tube rack 30 x Ø 16 mm, wide 70 mm; Instructions for use, preventive maintenance and troubleshooting in English</p> <p>Photo: supply.unicef.org</p>
70.	<p>Wheelchair; adult, manual, foldable</p>  <p>Photo: u-buy.com.tw</p>	<p>Rigid seat, padded with vinyl cover, 430mm; with adjustable leg length; 20x 610mm diameter rubber wheels at the front, chrome-plated wheel rims and spokes, hand rim for self-propulsion with hand brakes; two swivel front wheels; Heavy carriage mounted on 4 ball-bearing wheels; Front wheels free-rolling, 360° swivels. Both rear wheels with brake. The foot lever, integrated into the frame, facilitates tilting the wheelchair backwards. Two push-handles at the rear are fitted with plastic rims. Side-to-side legs support; Swing-away foot and arm supports for easy stepping on/off; Armrests, seat and back are upholstered.</p> <p>Materials:  High resistance to corrosion (tropical environment); Frame: chrome-plated or epoxy coated tubular steel; All seating parts are upholstered. Cover: plastic, flexible, highly tear resistant, anti-static, flame retardant, disinfectant- and liquid proof, washable; Tires: heavy-duty solid rubber</p> <p>Approximate Dimensions:</p>

	 <p>Photo: pinterest. at</p>	<p>Overall: 40-50 x 40-62.5 x 81-99 cm (d x w x h).; Seat depth: 42-43cm.  Back support: 43.5-49 x4 0.5-42 cm (w x h).; Side-to-side legs support: 47-50x8.5-23 cm.; Frame, diameter: 2.2cm.; Frame: 2.2cm (outside, across), 1.2mm thickness.; Wheels, diameter: Front 18-22 cm, rear 58-60 cm.  Carrying capacity: 150 Kg.</p> <p>Items supplied with:  1 x complete set of tools required for assembly</p> <p>List of accessories and parts  Detailed step-by-step instructions for assembly and safe use, text-free pictorial based (i.e. line-drawings only)</p> <p>Approximate Weight/Volume:  Estimated Weight: 19.5kg  Estimated Volume: 0.22M3</p> <p>Compliance with EAN 128 bar code CE and ISO</p>
71.	<p>Wheelchair; children, manual, foldable</p>  <p>Photo: amazon.com</p>	<p>Folding type, adjustable foot-rest in height, chrome-plated frame, with two brakes, two large back wheels, two swivel front wheels</p> <p>Approximate Dimensions:  Overall: 40-50 x 40-62.5 x 81-99 cm (d x w x h).; Seat depth: 42-43cm.  Back support: 43.5-49 x4 0.5-42 cm (w x h).; Side-to-side legs support: 47-50x8.5-23 cm.; Frame, diameter: 2.2cm.; Frame: 2.2cm (outside, across), 1.2mm thickness.; Wheels, diameter: Front 18-22 cm, rear 58-60 cm.  Carrying capacity: 100 Kg.</p> <p>Materials:  High resistance to corrosion (tropical environment); Frame: chrome-plated or epoxy coated tubular steel; All seating parts are upholstered  Cover: plastic, flexible, highly tear resistant, anti-static, flame retardant, disinfectant- and liquid proof, washable; Tires: heavy-duty solid rubber</p> <p>Compliance with EAN 128 bar code CE and ISO</p>

## B. Sophisticated and Complex Equipment



1. Anaesthesia machine; Draw-over



Photo: manualzz.com



Photo: ijset.net




Photo: draeger.com



Draw-over, AC and battery powered, with ventilator, vaporizer, mixer and other accessories:



General requirements:



1. With Rebreathing system, the CO<sub>2</sub> absorber
2. Draw over type anaesthesia machine with a flowmeter for oxygen
3. Must be able to be run off an oxygen concentrator
4. Back-up oxygen cylinder must be possible either pin-index and flexible colour-coded hose
5. Must have Halothane vaporiser
6. Possibility of an Isoflurane vaporiser as an option
7. Back up battery power supply
8. Integrated ventilator and multi-parameter monitor
9. US FDA approved or European CE mark
10. Integrated voltage stabilisation or supplied with a separate stabiliser
11. Complete with standard safety alarms and features
12. Provided with stable stainless steel cart, anti-static castor wheels, and trays for ECG, monitors, and other gadgets.

- Anaesthesia machine, closed and semi-open breathing circuit configuration suitable for paediatric and adult patients;
- Trolley with 4 antistatic swivel castors and 2 brakes, upper shelf, handles and side rail;
- Gas supply input 2.8 - 6 bar, O<sub>2</sub> and N<sub>2</sub>O flow-meters 0.05 - 10 l/min;
- Mixer secures a minimum of 25 % O<sub>2</sub>, N<sub>2</sub> vaporizer slots with selectatec mounting and interlock fixation system, halothane, isoflurane and sevoflurane vaporizer included in the supply;
- Soda lime absorber, 2.5 kg capacity; non-return and three-way valve;
- Ventilator: May be integral to the Anaesthesia machine or separate uni;
- Modes: Volume Controlled (IPPV, PLV), Stand-by, Manual, other ventilation modes according to model availability pneumatically driven, electronically controlled compressor, 2-25 l/mi;
- Tidal volume 50 - 1,500 ml (minimum guaranteed);
- Ventilation frequency 6 - 60 bpm (min. guaranteed, up to 4-100 bpm depending on model availability) I/E ratio 1:4 - 2:1 (min. Guaranteed, up to 1:8 - 4:1. Inspiration pressure 5 - 70 cmH<sub>2</sub>O, pressure limited range 10-100 cmH<sub>2</sub>O;
- Peak inspiratory flow 0 - 60 l/min;
- Flow trigger 1 - 15 l/min, Pressure trigger 0 - 20 cmH<sub>2</sub>O; Pressure gauge 20 - 100 cmH<sub>2</sub>O, accuracy ±2.5 %;

		<ul style="list-style-type: none"> <li>• Ventilation parameters monitored, with parameters and waveforms: frequency, tidal and minute volume, airway pressure, PEEP, compliance, O2 concentration (other Parameters may depend on the available model);</li> <li>• Audio/visual alarms (high/low airway pressure, respiratory rate, minute/tidal volume, FiO2, O2 supply, apnoea, power and system failure);</li> <li>• Display (flat colour panel) showing operational status, set and measured parameters and values, waveforms and alarms/errors (ventilation and anaesthesia parameters, power and system events);</li> <li>• Safety features for hypoxic mixtures, O2 failure, emergency O2 bypass, and over-pressure;</li> <li>• Self-diagnosis and integrity testing;</li> <li>• Adjustable patient-circuit support arm;</li> <li>• Built-in rechargeable battery, autonomy &gt;2 hours;</li> <li>• Automatic switch to battery in case of power failure, automatic recharge on connection to mains; and</li> <li>• Power requirements 230 V / 50 Hz; 600 - 800 W.</li> </ul> <p>ITEMS SUPPLIED WITH:</p> <p>1 x paediatric reusable breathing circuit (tubes/balloon/valves/mask)  1 x adult reusable breathing circuit (tubes/balloon/valves/mask)  2 x soda lime absorber grains, pack/2.5 kg  1 x spare parts/maintenance kit (air filters, tubing, O-rings)  1 x set of spare fuses  Instructions for assembly, use and maintenance in English</p>
2.	<p>Analyzer, haematology, 18-parameter</p>  <p>Photo: <a href="http://supply.unicef.org">supply.unicef.org</a></p>	<p>Scope: Complete blood count (CBC), with 5-part differential, for routine haematology; Platform: Bench-top, open, automated system  Method: Flow-cytometry, colourimetry, electrical impedance  Sample: Whole blood  Throughput: 50 to 100 samples per hour  Parameters:  Red blood cell (RBC), white blood cell (WBC), haemoglobin (HGB), haematocrit (HCT), mean cell volume (MCV), Mean cell haemoglobin (MCH), red cell distribution (RDW-SD and RDW-CV), platelets (PLT), platelet distribution (PDW-SD and PDW-CV), mean platelet volume (MPV), WBC differential (neutrophils, lymphocytes, monocytes, eosinophils and basophils).  Data management system built in for analysis and reporting stores at least 100 patient data, including quality control and calibrators.  Results reportable via external printer.  Printed test results show sample ID, date and time. Test results can be reported in graphs, histograms, and scatter graphs.  Quality control flags abnormal results, auto-calibration</p>

		<p>Connects to external PC via USB and can interface to LIS (Laboratory Information System). The casing is of corrosion-proof material  Power requirements: 230V/50Hz, with voltage surge protection  The equipment tolerates harsh environments, such as high humidity, operating temperatures of 15 °C to 35 °C</p> <p>Supplied with  1 x set of standard accessories, consumables and parts required to operate the equipment:  1x power cable, 1x network cable, 1x barcode scanner, 1x CD-ROM of software, 1x diluent cap assembly, 1x support frame of the diluent cap, 1x lyse cap assembly, 1x waste liquid cap assembly and start-up kit (1x diluent, 1x lyse, and 1x cleaner (UN1791, Class 8)  OBS Cleaning materials with hypochlorite solution are subject to dangerous goods classification (UN 1791, Class 8)  User manual in English</p>
3.	<p>Analyzer, clinical, chemistry</p>  <p>Photo: medicalexpo.com</p>  <p>Photo: chinacaremedical.com</p>	<p>Batch process determination of routine clinical chemistry parameters  Platform: Bench-top, open, automatic system  Throughput 60 to 100 tests per hour  Sample type: Serum, plasma, urine  Parameters: Routine chemistry analytes (substrates, electrolytes, enzymes, lipids, immunoturbidimetric)  Method: endpoint, differential, fixed time, kinetic, immunoturbidimetric, multi-standard  Pre-programmed and user-programmable routines and profiles  Data management system built for analysis and reporting, with storage of at least 100 patient data, including quality control and calibrators.  Results reportable via external printer.  Printed test results show sample ID, date and time  Quality control flags abnormal results, auto-calibration, auto-sampling, and auto-dilution. Connects to external PC via USB  The casing is of corrosion-proof material. Power requirements: 230V/50Hz, with voltage surge protection  The equipment tolerates harsh environments, such as high humidity, operating temperatures of 15C to 40C, some fungi and spikes</p> <p>Supplied with  1 x set of standard accessories, consumables and parts required to operate the equipment: 1x sample tray, 2x reagent trays, 40x reagent bottles with caps, 5x reagent bottles with caps, 50x reaction well segments, 500x sample cups, 20x tubes 2.5ml, 2x waste and wash bottles, 2x fuses, 1x power cable, 1x halogen lamp 12V 20W, 1x serial cable RS232, 1x peristaltic tube with 2 o-rings, 1x wash station, 1x case, 2x cleaning needle kits, 1x tube for external tank, 1x concentrated</p>

		<p>cleaning solution User manual in English</p>
4.	<p>Autoclave; sterilizer, steam, horizontal loading; fully automatic, 300 L</p>  <p>Photo: medicalexpo.com</p>	<p>Power source: 380/400/ 415 V, 3-phase;50Hz; with water softener, pump with filter for inlet water supply; fully automatic; pump for pre and post vacuum and drying; automatic horizontal loading steam sterilizer; 300 Ls capacity, electronic controlled operation in the front panel with appropriate cut-off devices and safety relief valves. Temperature range from 105-134 °C;</p> <p>Maximum chamber pressure 3 bars, built-in timer up to 60 minutes, with process stage display, time, pressure and errors, double door. Including chamber racks and trays, two spare sets of heating elements, a three-door gasket, 2 safety valves, solenoids; a loading trolley with castors and loading</p> <p>Stainless steel 304 internal chamber, jacket and internal shelves, Standard programs 134 ° C (2.2 bar), 121 ° C (1.1 bar) and additional pre-set programs. Front door with safety lock. Water circuit filter Front panel with operating information (cycle, time, temperature, pressure) and alerts. Alarms for system status, failure and potential damage. Over-pressure and over-temperature safety systems</p> <p>ITEMS SUPPLIED WITH: 3 x sterilizer baskets 3 x spare water filters</p>
5.	<p>CD4 Counter machine; point-of-care; portable</p>  <p>Photo: europepmc.org</p>	<p>Functionally complete tabletop counter, portable for CD4 absolute count with a starter kit. It is mainly used for ART initiation and monitoring adults, adolescents and children living with HIV/AIDS.</p> <p>Single-test processing automatic CD4 enumerator. Compact, light (2.54kg), portable to the point of patient care. Technology: fixed volume fluorescence activated cytometry. Provides absolute CD4 T-lymphocyte counts per unit of volume Accommodates dedicated prefilled single-use testing cartridges. Sample volume for analysis: 25µl whole blood. Enumeration range: up to 2000 cells/µl Accuracy: CV is below 10% at counts &gt;200c/µl, and below 15% at counts &lt;200c/µl Test reading time: 20min A large backlit alpha-numeric display (LCD) informs: - Device operational status and ongoing analysis - Measured results in cells/µl, per patient ID, with date and time - System errors or malfunctions, incl. insufficient sample volume - Status built-in battery Automated calibration with dedicated prefilled calibration cartridges. Robust and easy to clean and maintain. Design of prefilled cartridge</p>

 <p>Photo: who. int</p>	<p>insertion port eliminates sample cross-contamination</p> <p>The cartridge insertion port fits with a barcode reader. It fits with a USB data interface to a thermal printer. Reports: Measured CD4 results in cells/<math>\mu</math>l, per patient ID, with date and time and system errors. Memory for storage: up to 1000 test results per patient ID</p> <p>Ambient operating conditions range:</p> <ul style="list-style-type: none"> <li>- Operating temperature: 15 to 40C</li> <li>- Relative humidity: 10 to 95% no condensing</li> </ul> <p>Built-in rechargeable battery, autonomy 8hrs of continuous use or 20 test runs</p> <p>Automatic switch built-in battery/mains. Built-in voltage surge protection. Robust shock-proof housing and minimal vents enhance resistance to dust. Recharge time built-in battery, maximum: 8hrs.</p> <p>Power requirements: Built-in battery and 100-240 (A/C) at 47-63Hz Consumption, approximately 20W</p> <p>Warranty policy: 24 months. Warranty regulations applicable to the portable PoC CD4 [abs] counter and its accessories</p> <p>Supplied with:</p> <ul style="list-style-type: none"> <li>1x Power adaptor/ charger with connecting cable</li> <li>1x Printer</li> <li>1x Instruction manual/leaflet in English</li> <li>1x Carry bag</li> <li>1x Training poster, pictogram-based step-by-step CD4 count testing procedures</li> <li>1x Pima CD4 100X Cartridge kit</li> <li>1 x Finger Stick Sample Collection Kit for 100 Pima CD4 tests</li> <li>1x Communication (connectivity pack 1)</li> <li>1x External battery/cable</li> <li>1 x Package insert (instructions for assembly, use and maintenance in English)</li> </ul>
<p>6. Defibrillator; adult and paediatric, with ECG and printer</p>  <p>Photo: supply.unicef.org</p>	<p>Synchronised and bi-phasic, portable, AC and battery powered, with accessories:</p> <p>External defibrillator with ECG monitor, suitable for adult and paediatric patients, supplied with adult and paediatric pads/adapters. Non-directional pads, suitable for bi-phasic impulse waveform.</p> <p>Defibrillator features:</p> <p>Manual and synchronised defibrillation, bi-phasic energy waveform</p> <p>Energy output range 2 - 200 J or 2 - 360 J, depending on the available model; adjustable energy output, by steps minimum guaranteed energy levels (including lowest, middle and highest values): 11 levels in the range 2 - 200 J, additional 270 J and 360 J levels; energy output accuracy <math>\pm</math> 15 % patient resistance 30 - 175 Ohm (minimum guaranteed range) load compensation, energy level automatic adjustment to the patient impedance; adult and paediatric energy</p>

		<p>settings charge time to maximum energy &lt; 10 s (mains power supply and battery charged).</p> <p>ECG monitor:  Detection through pads or dedicated ECG cable; ECG waveform and analysis, selectable visualisation modes 3-leads ECG cable. ECG gain 2.5, 5, 10 and 20 mm/mV (minimum guaranteed) protection against defibrillation discharges; adjustable ECG print modes and settings (real-time, manual)</p> <p>Printer:  Built-in 3-channel thermal printer, print of ECG curves and analysis, events, settings and alarms; paper speed 25 mm/s (additional 50 mm/s; paper width 58 or 72 mm. Internal safety discharge feature (if a shock is not delivered). Compatibility with additional modes and monitoring features, not included (SAED, AED and pace modes, SpO2)  Internal storage for ECG, events (at least 500 or 60 min monitoring) and parameters; Data/USB communication interface; Integrated control panel with all parameters and controls; Display, backlit flat panel, 5 - 8 inch diagonal depending on the available model. Visualisation of defibrillation mode, energy, ready/charging state, ECG curves and heart rate, date/time, settings, mains and battery status, system messages and alarms. Audio/visual alarms for pad connection, mains/battery power supply status, paper and printer status, and system errors. Automatic and manual self-test, continuous check of pads and electrodes connection. Automatic switch to battery in case of power failure, automatic recharge on connection to mains.  Integrated battery charger and transformer, removable rechargeable battery. Battery autonomy &gt; 100 shocks at 200 J or 3.5 h monitoring  Integrated carry handle, splash and shock resistant  Power requirements 230 V / 50 Hz, 200 W</p> <p>ITEMS SUPPLIED WITH:  1 x ECG patient cable  1 x pair of adult pads  1 x pair of paediatric pads/adapters  1 x pack of 100 single-use ECG electrodes  3 x 100 ml bottles of conductive gel  1 x spare rechargeable battery  5 x rolls/packs of thermal paper  Instructions for assembly, use and maintenance in English</p>
7.	Defibrillator, AED	<p>Automated External Defibrillator (AED) for adult and paediatric patients, bi-phasic, compact and portable, battery-powered, with accessories</p> <p>AED compact defibrillator with CPR support feature. The immediate operation, easy-to-use device, step-by-step guide on the device and durable plastic-enclosed manual. Suitable for adult and paediatric</p>



Photo: biname.be

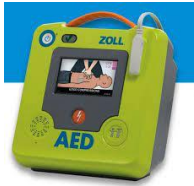


Photo: medicalexpo.com

patients. Supplied with adult and paediatric adhesive pads, colour coded and with pictograms and instructions for easy and correct positioning. Automatic ECG (VT/VF) detection through the pads

**Defibrillator features:**

Automated External Defibrillation (AED mode) with Cardio-Pulmonary Resuscitation (CPR) procedure automatic switch between AED and CPR modes, based on VT/VF rhythm analysis adult and paediatric settings bi-phasic energy waveform 3-levels sequence shock triggered by ECG detection, automatic energy adjustment energy maximum output 150 J for adults, 70 J for children energy output accuracy  $\pm 15\%$  patient resistance 30 - 175 Ohm (minimum guaranteed range) load compensation, energy level automatic adjustment to the patient impedance charge time to maximum energy < 10 s

Built-in audible metronome for Cardio-Pulmonary Resuscitation (CPR) procedure. Internal safety discharge feature (if a shock is not delivered) Integrated control panel/display with all parameters and controls Step-by-step pictograms on the control panel for ready and easy operation LEDs/lights visualising operational status and step-by-step operation. Audio/visual alarms for operational status, electrodes, battery status and system errors. Automatic self-test and continuous check of pads and electrodes connection. Splash and shock resistant Replaceable internal battery, non-rechargeable. Battery autonomy (minimum guaranteed) 100 shocks at maximum energy Shelf life 5 years stand-by operation

**ITEMS SUPPLIED WITH:**

- Cart with brake and internal paddles
- 1 x set of adult adhesive external pads, colour-coded and with pictograms
- 1 x set of paediatric adhesive external pads, colour-coded and with pictograms
- 2 x sets of batteries
- 1 x plastic enclosed Quick Reference Guide (step-by-step AED and CPR)
- 1 x CD-ROM with training material
- 1 x carry case, with storage pockets for leads and accessories
- Instructions for assembly, use and maintenance in English

8.	Dental chair; electric; hydraulic	Consists of the following: 4-Hole handpiece tubing, Upholstery: leather, 9 memory positions, Rotatable glass spittoon, LED operating light, X-ray viewer, Saliva ejector system, 3-Way syringe, Multi-function foot control pedal, Clean water system, Built-in junction box, Doctor's stool, built-in curing light, built-in scaler.
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		<p>Photo: mesaustralia.com.au</p>
<p>9. Dental Unit, delivery, electric, pneumatic</p>		<p>Consists of the following: Power source requirement: 230V, 50 Hz, 0.55KW approximately, Air flow: 40L/min, Tank: 5L, Noise level: <math>\leq</math> 60dB(A), Dimensions: 450*310*680mm approximately., Standard features: 3-way syringe, Saliva ejector, Compressor, oil-less, 50 L, Handpieces and tubing. Handpieces consist of high-speed: fibre optic, 3-point spray; Slow speed: contra-angle, straight, air motor</p> <p>Photo: medicalexpo.com</p>
<p>10. Diathermy machine (ESU)</p>	 <p>Photo: bowde.co.uk</p>	<p>Table-top, with trolley, 300-400 W HF micro-processor controlled electrosurgical generator which modulates frequency levels to achieve Pure-cut, Blend 1, Blend 2, Spray coag, Soft coag, Bipolar cut and Bipolar coag with pedal shoot audio-visual indicators and error codes. Separate power display and socket for mono-polar cut, mono-polar coagulate bipolar cut and bipolar coagulate. Integrated return electrode monitoring system and power peak system prevent tissue damage.</p> <p>Operating Frequency: 416 kHz</p> <p>Modes: 5 Monopolar modes (Cut; pure, blend I, II; Contact, Forced; 1 W-300 W); 2 Bipolar modes (cut and coag, 1 W-90 W at 200-ohm impedance)</p> <p>Power supply: 230 V; 50 Hz</p> <p>Accessories:</p> <ol style="list-style-type: none"> <li>Monopolar Footswitch</li> <li>Bipolar Footswitch</li> <li>Reusable hand switching Pencil</li> <li>Reusable Patient Plate</li> <li>Bipolar Forceps.</li> <li>Forceps Cord</li> <li>Universal Adaptor</li> </ol>
<p>11. ECG Recorder Unit; 3 or 6-channel, portable, diagnostic</p>		<p>Electrocardiogram (ECG) digital monitor and recorder, 12-leads detection, multi-channel recording, portable, AC and battery powered, with printer and accessories</p>





Photo: gimaitaly.com



Photo: meditech.com.cn

ECG analysis and full interpretation (rhythm and events), real-time and manual 3- or 6-channels recording

ECG features:

12 standard derivations aVR, aVL, aVF, I, II, III and V1 - V6, simultaneous 12-leads acquisition adjustable ECG acquisition and visualisation modes; ECG gain 2.5, 5, 10, 20 mm/mV and Auto, accuracy  $\pm 5\%$ . Adjustable ECG sweep (trace speed in mm/s); HR range 30 - 300 bpm with rhythm analysis. Common Mode Rejection Ratio (CMRR) > 89 dB frequency response (minimum guaranteed) 0.05 - 150 Hz accuracy of input signal reproduction  $\pm 5\%$  (according to 4.2.7.1 of AAMI EC11) calibration signal 1 mV  $\pm 5\%$  input impedance > 2.5 MOhm or > 50 MOhm, depending on the available model internal noise level < 15 micro V (p-p) current leakage to the patient < 10 micro A pacemaker rhythm detection auto-zero feature selectable/adjustable filters: baseline correction and Baseline Drift Removal (BDR); AC (mains frequency suppression); Muscle Artefact (EMG) defibrillation and AC fluctuation protection, baseline recovery < 5 s after defibrillation

Built-in printer: thermal printing head automatic and manual print (selectable modes, ECG traces and reports) 3 or 6 channel recording, depending on the available model paper speed (minimum guaranteed) 5, 12.5, 25 and 50 mm/s, accuracy  $\pm 5\%$  compatible with a roll and Z-folded paper (80 mm 3-channel, 110 mm 6-channel)

Integrated keyboard; Patient data input; Internal storage for patient data, exams, analysis, interpretations and settings; Data and report export feature; Data/USB and network interface; Display, backlit colour TFT LCD, 5 - 8 inch diagonal depending on the available model Visualisation of ECG channels, patient data, date/time, settings, analysis/interpretation, battery status, system messages and alarms Adjustable visualisation settings, with selectable ECG channels and parameters. Audio/visual alarms for patient connection, paper and printer errors, mains/battery power supply and system errors.

Continuous check of electrode connection and audio/visual alarm on signal loss. Automatic self-test and continuous system monitoring Built-in rechargeable battery, autonomy > 2.5 hours or 800 exams, whichever is higher. Automatic switch to battery in case of power failure, automatic recharge on connection to mains

Power requirements 230 V / 50 Hz

Power consumption 80 W




ITEMS SUPPLIED WITH:


1 x patient cable


6 x reusable chest electrodes, suction ball type



4 x reusable clamp electrodes



1 x supply of 960 thermal Z-folded sheets


		<p>300 ml of ECG conductive gel  1 x spare rechargeable battery pack  1 x dustcover  Instructions for assembly, use and maintenance in English</p>
<p>12. Fetoscope/ Fetal doppler/ Foetal heart rate (FHR) detector</p>  <p>Photo: zoodmall.iq</p>  <p>Photo: en.wikipedia.org</p>	<p>Foetal Heart Rate (FHR) doppler detector, with a speaker, handheld, battery-powered accessories; ultrasound detector, single transducer. Handheld lightweight detector; continuous ultrasonic doppler operating mode. External transducer, connected to the main unit through a coiled wire cable. Integrated transducer holed on the body of the main unit. Ultrasound frequency 2 MHz <math>\pm</math> 10 %; Sensitivity 90 dB  Ultrasonic power output &lt; 10 mW or &lt; 18 mW, FHR range 50 - 210 bpm <math>\pm</math> 2 bpm, resolution 1 bpm. Integrated loudspeaker and volume level adjustment. Noise suppression feature. Integrated headset connector, LCD, backlighted, with FHR, pulse, frequency, volume, battery and system status. Audio/visual alarms for high/low FHR, battery status and system errors. Automatic self-test; Automatic power-off  Battery autonomy &gt; 5 h or 600 exams, whichever is higher.  Power requirements 1.5 V AA (LR6) commercial disposable batteries or 1.2 V Ni-MH commercial rechargeable batteries (not included), 2 or 3 units.  Power consumption 0.5 W</p> <p>ITEMS SUPPLIED WITH:  2 x 350 ml or 3 x 250 ml (depending on availability) bottles of US gel  2 x sets of commercial disposable alkaline batteries (separately packed)  1 x soft carry bag  Instructions for assembly, use and maintenance in English</p>	
<p>13. Glucose meter; Test strip, whole blood, glucose, box/100</p> 	<p>Test strips for glucose analysis in whole blood  Parameter:  Glucose: neg, 20, 40, 60, 100, 140, 180, 220 mg/dl, or more  The colour reference card is water resistant and wet-wipable. Reading time: approximately 30 seconds to 1 minute  Data storage: 400 glucose measurements or QC tests  Measurement and range unit: 1-50 mmol/L  Sample volume required: 1.2uL  Time to glucose result: 6 seconds  LCD black/white display</p> <p>Shelf-life 24 months upon manufacturing date</p>	

		<p>Primary packaging is unbreakable and sealed Bottle of 100 test strips</p> <p>Photo: cliawaived.com</p>
14.	<p>Haemoglobin analyzer; Haemoglobinometer/Photometer</p>  <p>Photo: indiamart.com</p>	<ul style="list-style-type: none"> <li>• Hand-held haemoglobin photometer HemoCue Hb 301, starter set;</li> <li>• Automated point-of-care device for measuring haemoglobin in whole capillary blood;</li> <li>• Technology: Dual wavelengths optical absorption photometry (506 nm and 880 nm for Hb measurement and turbidity compensation);</li> <li>• Both wavelengths are at isosbestic points for oxyhaemoglobin and deoxyhaemoglobin;</li> <li>• Provides direct reading from inserted micro-cuvette;</li> <li>• Removable micro-cuvette holder to allow for easy cleaning;</li> <li>• Accuracy: Correlation with the ICSH (International Committee for Standardisation in Haematology) reference method: 0.99. Factory calibrated and built-in auto self-test each time the device is switched on;</li> <li>• It needs no further calibration;</li> <li>• Sample size: 5 to 10uL capillary, venous or arterial whole blood;</li> <li>• Sample collected directly from the skin surface into single-use micro-cuvette by capillary action;</li> <li>• Uses dedicated micro-cuvette (closed system);</li> <li>• Measuring range: 0 to 26 g/dL;</li> <li>• Read-out in: g/dL or mmol/L Reading time: &lt;20 sec;</li> <li>• The display informs haemoglobin reading, reading errors, systems errors, and battery status;</li> <li>• Symbols in display facilitate multi-lingual understanding;</li> <li>• Interfaces: RS 232 to printer or computer;</li> <li>• Power supply: 230V /50 or 4 x type AA / R6 1.5 V batteries (allowing for 100h to 150h continued usage)</li> </ul> <p>Supplied as set containing:</p> <ul style="list-style-type: none"> <li>1x Point-of-care haemoglobin meter</li> <li>1 x Set of 200 micro-cuvettes (4x50)</li> <li>1 x Box of 200 safety lancets (sterile single-use, auto-disable, incision 2.25 mm)</li> <li>1 x Set of 5 cleaners</li> <li>1 x Set of 4 AA / R6 1.5 V batteries (separately packed)</li> <li>1 x power adaptor</li> <li>1 x Storage and transportation box (hard-case)</li> <li>1 x Instructions for use in English and French; including</li> </ul>

		<p>pictogram showing step-by-step the measurement procedure 1 x Operator' s manual in English</p>
15.	<p>Incubator, infant</p>  <p>Photo: medicalexpo.com</p>	<ul style="list-style-type: none"> <li>• Neonatal incubator, double-wall, electronic, automatic, mobile, with accessories;</li> <li>• Double-wall neonatal incubator, mobile;</li> <li>• Automatic servo-control and manual control;</li> <li>• Sturdy construction, mobile base with 4 anti-static swivel castors and 2 brakes;</li> <li>• Cabinet with 2 drawers, integrated into the base;</li> <li>• Side handles for easy moving;</li> <li>• Protective side/corner bumper;</li> <li>• Mould and corrosion resistant frame suitable for frequent and easy dismantling and cleaning side rails, IV pole and instrument shelf</li> </ul> <p>Canopy: double-wall radio-transparent approximate dimensions 45 W x 80 L x 43 H cm (minimum guaranteed) inclined front, with access door and 2 port holes 2 rear port holes, 4 (min) apertures for cables and tubing. Silent incubator and door/port holes operation</p> <p>Mattress: tilting <math>\pm 12^{\circ}</math> fixed mattress tray</p> <p>Modes: manual; servo-controlled, air temperature servo-controlled, skin temperature</p> <p>Air temperature setting 25 - 37 °C, override up to 39 °C, with 0.1 °C increments. Temperature variability (fluctuation between set and real values) <math>\pm 0.5</math> °C. Temperature uniformity (at mattress level) &lt; 0.8 °C</p> <p>Skin temperature setting is 34 – 36 °C and up to 38 °C, with 0.1 °C increments. Skin temperature sensor accuracy <math>\pm 0.3</math> °C.</p> <p>Humidifier with integrated water chamber, passive not-adjustable (evaporation chamber) or servo-controlled adjustable humidifying system (up to 95 % relative humidity). Warm-up time (to 37 °C in 22 °C ambient temperature) &lt; 30 min. Air velocity over the bed &lt; 0.35 m/s; Air filter capacity at inlet 99 % particles &gt; 0.5 <math>\mu</math>m. The noise level inside the incubator was &lt; 55 dB. Automatic self-test and continuous system monitoring. Control panel and display, visualisation of settings and measured parameters. Audio-visual alarms for skin/air temperature, sensors, fan, heater, and system functionality. Power requirements 230 V / 50 Hz Power consumption 600 - 750 W</p>

		<p>ITEMS SUPPLIED WITH:</p> <ul style="list-style-type: none"> <li>1 x spare set of skin temperature probes</li> <li>1 x IV pole with rail fixation clamp</li> <li>3 x set of spare air filters</li> <li>1 x set of spare fuses</li> <li>Instructions for assembly, use and maintenance in English</li> </ul>
<p>16. Infusion pump, volumetric</p>	 <p>Photo: indiamart.com</p>	<p>Volumetric, single channel, AC and battery powered, with accessories, portable, for IV fluids infusion, single channel. Peristaltic pump, continuous delivery suitable for rail and IV pole mount. Programmable infusion by volume, time and flow rate. Flowrate range 1 - 1,200 (minimum guaranteed) ml/h, 1 ml/h step, accuracy <math>\pm 5\%</math></p> <p>Volume limit range 1 - 9,999 ml, 1 ml step. Open system, compatible with commercial infusion sets. Bolus program, range 100 - 900 ml/h KVO program, 1 ml/h for infusion rate &lt; 10 ml/h and 3 ml/h for infusion rate &gt; 10ml/h. Air bubble detection. Occlusion detection</p> <p>The display and control panel visualises all operating parameters (program, volume, flow, time) and system messages. Audio/visual alarms, with silencing feature, for occlusion, air-in-line, door open, status and end of infusion/program, battery/power supply status and failure, and system errors. Automatic self-test function. Battery and AC powered, with an automatic switch between modes and automatic recharge when connected to mains. Battery autonomy &gt; 5 h (at 30 ml/h). Integrated battery charger. Sturdy construction, splash- and shock-proof plastic enclosure. Power requirements 230 V / 50 Hz; 25 W, DC adaptor AC/9-12 V DC.</p> <p>ITEMS SUPPLIED WITH:</p> <ul style="list-style-type: none"> <li>1 x set of 10 infusion sets</li> <li>1 x rail and IV pole mounting clamp</li> <li>1 x spare battery pack</li> <li>Instructions for assembly, use and maintenance in English</li> </ul>
<p>17. Laryngoscope, adult and child, set</p>		<p>The large hollow, cylindrical, slightly ribbed handle is made of either chromium-plated or stainless steel. Stud contact, fitting various sizes and types of depressors, with a set of four stainless steel depressors with halogen bulbs or equivalent. It can be opened to insert two batteries (type LR14, size C, 1.5 V).</p> <p>Macintosh type:  Curved Nr 2, length approximately 110 mm  Curved Nr 3, length approximately 135 mm  Curved Nr 4, length approximately 155 mm  Miller type:  Straight Nr 1, length approximately 100 mm</p> <p>Supplied with:  1 x Durable protective plastic box or padded vinyl case</p>

		<p>4 x spare halogen bulb (one for each depressor) 1 x Instructions for assembly, use and maintenance in English</p> <p>Photo: <a href="http://supply.unicef.org">supply.unicef.org</a>; <a href="http://v-medtech.com">v-medtech.com</a></p>
<p>18. Monitor, patient, multi-parameters, bedside/portable</p>	 <p>Photo: <a href="http://medical-equipment-msl.com">medical-equipment-msl.com</a></p>	<p>Patient vital signs monitor, 5 physiological parameters, for adult, paediatric/infant and neonatal patients, AC and battery powered, with accessories. Portable 5-parameters monitoring: ECG and Heart Rate (HR), Respiratory Rate (RR), SpO2, NIBP and Temperature</p> <p>ECG and HR: 3-leads ECG, I-II-III selection (optional 5-leads I, II, III, aVR, aVL, aVF, V) waveform visualization gain 1.25, 2.5, 5, 10, 20, 40 mm/mV and auto sweep speed 6.25, 12.5, 25 and 50 mm/s accuracies <math>\pm 1</math> bpm or <math>\pm 1\%</math>, whichever is greater S-T detection, arrhythmia analysis standardising marker -1 to 1 mV or -2 to 2 mV (depending on the available model) HR 15 - 300 bpm for adults and 15 - 350 bpm for paediatric/neonates. Respiratory rate (RR): RR range 0 - 120 adult, 0 - 150 paediatric/neonatal resolution 1 rpm accuracy <math>\pm 2</math> rpm or <math>\pm 2\%</math> in the range 7 - 150 rpm, whichever is greater.</p> <p>NIBP: Oscillometric step deflation adjustable inflating pressure systolic, diastolic and mean pressure measurement. Measurement overall ranges (min. value diastolic, max. value systolic) 10 - 270 adult, 10 - 200 paediatric, 10 - 135 neonatal resolution 1 mmHg</p> <p>SpO2: Range 0 - 100% resolution 1%, accuracy <math>\pm 2\%</math> in the range 70 - 100 % Heart rate detection 25 - 250 bpm, accuracy <math>\pm 3</math> bpm or <math>\pm 2\%</math>, whichever is greater</p> <p>Temperature: Range 0 - 50 °C resolution <math>\pm 0.1</math> °C accuracy <math>\pm 0.1</math> °C</p> <p>Adjustable signal amplitude and sensitivity TFT colour display &gt; 10.4 inches. Multi-waveform and parameters visualisation, at least 4 channels. Defibrillator sync and protection. Pacemaker detection/rejection. Patient information and internal trend database. Trend display &gt; 120 hours at 1 min resolution. Audio-visual alarms and silencing feature for all monitored parameters. Display reports alarms,</p>

		<p>system errors, leads and sensors failure and AC/battery status. Data and network interface suitable for standard bed/wall rail and pole stand mount, robust design for use in a demanding environment. Soft touch keys, durable and easy to clean surface, resistant to hospital-grade cleaning products. Automatic self-test and continuous system monitoring. Built-in rechargeable battery, autonomy &gt; 3.5 hours. Automatic switch to battery in case of power failure, automatic recharge on connection to mains. Power requirements: 230 V / 50 Hz</p> <p>ITEM SUPPLIED WITH: 1 x wall mount bracket 1 x spare rechargeable battery pack 1 x set of spare fuses NIBP accessories: 3 x NIBP hoses (1 x neonatal, 1 x paediatric, 1 x adult) 3 x blood pressure cuffs (1 x neonatal, 1 x paediatric, 1 x adult) ECG accessories: 2 x sets of patient cable terminals (1 x neonatal/paediatric, 1 x adult) 2 x sets of electrodes (1 x neonatal/paediatric, 1 x adult) 1 x conductive gel, bottle 250 ml Temperature accessories: 2 x skin temperature probes (including connection cable) SpO2 transducers, with cable and plug: 2 x adult size, reusable clip-on type 2 x paediatric size, reusable clip-on type 3 x neonatal size, reusable clip-on type 10 x neonatal size, single-use wrap-around type Instructions for assembly, use and maintenance in English</p>
19.	<p>Operating theatre lamp; room, mobile</p>  <p>Photo: medical-x-ray.com</p>	<p>Surgical light, LED or halogen, mobile, AC and battery powered</p> <p>Mobile surgical light mounted on a base with swivel castors and brakes. Low centre of gravity, sturdy construction. Single cupola with LED or halogen light source, single or multiple 24 V. Colour white/daylight; temperature 4,000 K <math>\pm</math> 10 %. Light field of view 0.25 m <math>\pm</math> 10 % diameter. Focus control homogeneous light 50,000 - 60,000 lux at approximately 1 m. Cupola diameter 45 - 50 cm, with central handle mounted on a pole stand with an articulated arm. Vertical range 180 - 230 cm. Horizontal turning &gt;100° ;</p> <p>Built-in transformer and batteries, with battery charge indicator. Automatic switch to battery in case of power failure. Power requirements: 230 V / 50 Hz Power consumption is 150 - 250 W approximately.</p> <p>Items supplied with:</p>


		<p>1 x set of spare halogen bulbs  1 x spare handle for the cupola  1 x set of spare fuses  Instructions for assembly, use and maintenance in English</p>
20.	<p>Ophthalmoscope, set</p>  <p>Photo: cmecorp.com</p>	<ul style="list-style-type: none"> <li>The ophthalmoscope is set to visualise the eye's interior, with the instrument relatively close to the subject's eye and the observer viewing an upright magnified image composed of a diagnostic head threaded on a handle.</li> </ul> <p>Range of lenses not smaller than -20D to +20D with steps not greater than 1D.  Anti-reflection lens;</p> <ul style="list-style-type: none"> <li>Magnification 12-16x;</li> <li>Apertures: small, large and semi-circle, fixation star;</li> <li>Colour temperature: Cool white in the range of 3100-5500K;</li> <li>Light intensity: 8,000-12,000 lux;</li> <li>Dust-free sealed optics and aspherical optical system;</li> <li>Red-free, blue, green, and polarization filters;</li> <li>Handle with on/off switch;</li> <li>Scratchproof lens; glass (preferred) or plastic;</li> </ul> <p>Batteries: AA or rechargeable;</p> <ul style="list-style-type: none"> <li>Battery life: at least 5 hours of use on a full charge or fresh batteries;</li> </ul> <p>The set is contained in a hard storage case;</p> <ul style="list-style-type: none"> <li>Capable of being stored continuously in an ambient temperature of 0 to 50° C and relative humidity of 15 - 90%;</li> <li>Operating continuously at the ambient temperature of 10 to 40 deg C and relative humidity of 15 to 90%; and</li> <li>Liquid splash resistant, weight: &lt; 0.20kg without batteries.</li> </ul> <p>Supplied without batteries  Supplied with:  Clear instructions for use/diagrams for assembly in 3 languages, list of accessories/parts.  Accessories/Spare parts/Consumables:  Battery charger (as applicable to rechargeable type only)  Light bulbs 24 pcs</p>
21.	<p>Oximeter, pulse; hand-held</p>	<p>A handheld, portable, battery-powered pulse oximeter displays patient oxygen saturation (SpO2), pulse rate and respiratory rate in real-time.</p> <p>SpO2, pulse rate and respiratory rate are monitored for children, neonates and adults; detection includes the range: of 70 - 100 %.  Resolution: 1 %.  Accuracy (at least 70 - 100%): within ± 2% in ideal conditions in adults</p>





Photo: medgadget.com

and within  $\pm 3\%$  for all patients and perfusion/movement conditions. Pulse Rate detection includes the range: 30 - 240 bpm; resolution: 1 bpm; accuracy within  $\pm 3$  bpm in ideal conditions; Respiratory rate: includes the range 5 to 80 rpm; resolution: 1 rpm; accuracy within  $\pm 2$  rpm in ideal conditions

#### **Display**

For the patient age group, the input features of the display indicate a high and normal respiratory rate count for inputted age; it indicates when  $SpO_2 < 90\%$  (hypoxaemia per WHO guidelines). Data display refresh rate  $\leq 5$  s; with main parameters: %SpO<sub>2</sub>, pulse rate, respiratory rate, signal quality, status messages, and battery state indication.

#### **Features**

Suitable for detection in low perfusion conditions down to a perfusion index of 0.1%. Design enables use in demanding environments, e.g. shock and vibration. Automatic correction for movement and ambient light artefacts. Audible and visual alarms for sensor or disconnected, system errors, or low battery.

#### **Casing**

Enclosure protection IPX2.

Case and probe suitable for cleaning and disinfection with hospital-grade cleaning products. Overall device and probe weight  $< 300$  g.

#### **Electrical characteristics**

It is operated by a rechargeable, non-replaceable Li-ion battery power supply. Charger certified to IEC 60601-1. Protection against defibrillator discharges. Suitable for operation by battery and the mains power supply, if connected and recharging.

Automatic switch between battery and mains powered modes when recharging or in a mains power failure. The display shows which power source is in use. Running time on battery is only  $\geq 20$  hours.

Automatic power-off after a period of no use.

#### **SUPPLIED WITH**


2 x each neonatal and universal reusable probes.

1 x battery charger

1 x set user and maintenance manuals, hard and soft copies, in the local language or other languages if local is unavailable.

1 x list of equipment and procedures required for local calibration and routine maintenance.

1 x list of all spares and accessories, with part numbers and contact details for parts supply.

<p>22.</p>  <p>Photo: itemscatalogue.redcross.int</p>	<p>Processor, film, x-ray, automatic</p>	<p>Processor type: Continuous roller transport system</p> <p>Processing time: Standard: 90 seconds; Option: 90 to 230 seconds by variable speed controller;</p> <p>Film size: From 4" x 4" (10cm x 10cm) up to 14" x 17" (35cm x 43cm);</p> <p>Processing Capacity: 100 sheets/hr (mixed sizes) - at 95 seconds standard processing time;</p> <p>Developer temperature: Automatic microprocessor controlled - Temperature control range: 28-38°C (82-100°F) - Temperature can be easily changed and reset;</p> <p>Circulation mode: Anti-crystallization by an automatic circulation pump</p> <p>Replenishment mode: Automatic microprocessor and manual-controlled;</p> <p>Dryer type: Blower-heater;</p> <p>Film feed sensor: Micro-switch sensor;</p> <p>Tank capacities: Developer: 5.0 Ls (1.32 gallons) Fixed: 5.0 Ls (1.32 gallons) Washer: 6.0 Ls (1.58 gallons);</p> <p>Water consumption: 1.5 Ls (0.4 gallon) / min;</p> <p>Power Consumption: Operation mode: 1.8 kW; Stand-by mode: 0.8 kW</p> <p>Electrical connections: AC 220-240 Volt, 50Hz/60Hz, Single phase AC 110-120 Volt, 50Hz/60Hz, Single phase;</p> <p>Standard accessories: Replenishment tanks: 25 Ls (7.0 gallons) / 2 pieces Hoses / Stand / Manual / Spare parts kit</p>
<p>23.</p>  <p>Photo: biobase.en.made-in-china.com</p>	<p>Refrigerator, blood bank; 80, 90, 132 units of 450 mL; electric</p>	<p>Upright refrigerator for storing whole blood or red blood cell packs in a blood bank with the following minimum specifications:</p> <ol style="list-style-type: none"> <li>1. Compression type, CFC-free refrigerant.</li> <li>2. Storage capacity: 84, 90 or 132 units of 450 ml.</li> <li>3. Fan-cooled for even distribution of air in the cabinet.</li> <li>4. Roll out drawers or shelves, easily height adjustable.</li> <li>5. Material, internal: Internal stainless steel, aluminium or equivalent.</li> <li>6. Material, External: Epoxy-coated steel</li> <li>7. Insulation material: Polyurethane, CFC-free</li> <li>8. Lockable door, glass or solid.</li> <li>9. Electronic temperature control: 2° C to 6° C</li> <li>10. Accuracy, regardless of the load: +/- 1° C</li> <li>11. Hold-over time: around 35 minutes. (empty load at 4° C (+/- 1° C) takes at least 31minutes. To reach 10° C, at an ambient 25° C)</li> <li>12. Cooling-down time: Cooling-down time: around 15 hrs.</li> </ol>

13. Ambient operating temperature acceptable range: Lower 10° C, upper 32° C.

Temperature monitoring:

- 1 - External digital display with actual interior temperature, minimal graduation 0.1° C.
- 2 - Electronic temperature recording device: includes data logger (optional or standard, depending on the refrigerator model).
- 3 - Audio and visual alarm system indicates unsafe temperatures (optional or standard, depending on the refrigerator model).
- 4 - Battery back-up for the audio and visual alarm system and temperature recording device
- 5 - Fit with remote alarm connection and interface (optional or standard)

Other requirements:

- 1 - Fitted with integrated castors.
- 2 - Minimum compressor starting voltage: +-10%.
- 3 - Power requirements: 230 V / 50 Hz, Single Phase.
- 4 - Power consumption: approximately 350W

Supplied with Automatic voltage regulator:  
A microprocessor-controlled spike and surge protection and protection against disturbances;

- 1 - Nominal output voltage: 220 V / 50 Hz, Single Phase, Single Phase.
- 2 - Accepted input range: 160-280 VAC for 220 V/50 Hz system and 82-159 volt for 110/60 Hz (If requested), Single Phase.
- 3 - Output accuracy:  $\leq \pm 10\%$
- 4 - Response time: <15 ms or 50 s (depending on the model)
- 5 - LED display showing connected/disconnected status, voltage fluctuation and load as % of nominal current or a digital display showing temperature, voltage, and electricity (depending on the refrigerator model).
- 6 - Permissible overload: Permissible overload: 1000 % within 60 ms protection.
- 7 - Electronic fuse disconnects and reconnects automatically (optional depending on the model).

The 8-kVA rating matches the power consumption of the refrigerator.

Warranty:  
A two-year replacement warranty covers the Refrigerator if any component failure arises from defective design, materials or workmanship.

Spare parts:

- 1 x pc door gasket



		<p>1 x pc compressor</p> <p>5 x pc bulb</p> <p>Materials: Restricted materials: The product and its constituent components do not contain lead (except in batteries), mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated biphenyl ethers (PBDE).</p> <p>Other restricted materials: The appliance and its constituent components do not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated biphenyl ethers (PBDE).</p>
24.	<p>Slit Lamp and the applanation tonometer</p> 	<p>Measurement Method: Applanation type (observed with a left eye on the slit lamp)</p> <p>Depression Area: approximately 7.354mm<sup>2</sup></p> <p>Diameter of Measurement Depression Area: approximately 3.06mm</p> <p>Measurement Range: 0 ~ 80mmHg</p> <p>Minimal Scale: 2mmHg approximately 0.2 kPa</p> <p>Photo: takagieurope.com</p>
25.	<p>Sterilizing unit; steam; dental; electric; high-speed; table-top; automatic cycle</p> 	<p>For wrapped and unwrapped instruments;</p> <ul style="list-style-type: none"> <li>• European Class N standard; capacity: 16 L approximately; chamber size: 230mm x 400mm approximately;</li> <li>• Overall dimensions: 500mm (W) x 400mm (H) x 530mm (D) approximately;</li> <li>• Power consumption: 220V - 240V / 1.4KW (max) /7A; Sterilizing temperature: 140° C, automatic cycle; and</li> <li>• Safety devices: overheat (low water) cut-off switch, safety valve, release valve, emergency exhaust valve, door safety holder and pressure control switch</li> </ul> <p>Photo: healthcare.agneovo.com</p>
26.	<p>Syringe Pump</p>	<p>Single channel, AC and battery powered, with accessories, portable, for IV fluids infusion, single syringe. Continuous delivery, piston-driven, suitable for rail and IV pole mount. Compatible syringes 10, 20, 30, 50 and 60 ml. Automatic syringe capacity detection; open system, compatible with commercial syringe sets. Programmable infusion by</p>



Photo: infinita-medical.eu

rate, time, flow and dose (patient body weight and drug concentration with automatic calculation) and syringe capacity selection.

Flow-rate range, programmable:

- 0.1 - 400 ml/h for 10 ml syringe, 0.1 ml/h step
- 0.1 - 800 ml/h for 20 - 30 ml syringe 0.1 ml/h step
- 0.1 - 1,800 ml/h for 50 - 60 ml syringe 0.1 ml/h step

Accuracy  $\pm 2\%$

Volume limit range 0.1 - 999.9 ml, programmable, with 0.1 ml step

Time limit range 1 - 1,999 min of operation

Bolus program, maximum volume 25 ml or syringe capacity whichever higher

Bolus range:

- 10 - 300 ml/h for a 10 ml syringe
- 10 - 600 ml/h for 20 - 30 ml syringe
- 10 - 1,200 ml/h for 50 - 60 ml syringe

KVO program, 1 ml/h; Programmable infusion by patient body weight, drug concentration, with automatic calculations; Occlusion detection, 3 selectable levels. The display and control panel visualises all operating parameters (program, volume, flow, time, dose, patient data) and system messages. Audio/visual alarms, with silencing feature, for occlusion, plunger and syringe error, status and end of infusion/program (near empty, empty syringe), battery/power supply status and failure, and system errors. Automatic self-test function

Battery and AC powered, with an automatic switch between modes and automatic recharge when connected to mains. Battery autonomy > 8 h (at 5 ml/h). Integrated battery charger. Sturdy construction, splash- and shock-proof plastic enclosure.

Power requirements 230 V / 50 Hz, approximately 25 W.

ITEMS SUPPLIED WITH:

- 1 x set of 10 syringe sets
- 1 x rail and IV pole mounting clamp
- 1 x spare battery pack
- Instructions for assembly, use and maintenance in English



27.	Ultrasound, scanner, diagnostics; 3-D	<p>Mobile, with a trolley or transportable and accessories to be used in health infrastructures for diagnostic imaging applications: general abdomen, obstetrics and gynaecology, small parts, neonatal head and hip, cardio-vascular, urology and intra-operative</p> <p>High-performance ultrasound scanner</p> <p>The system integrates a scanner, 2 probes, a matching trolley and a video printer. Compact and lightweight, easy to transport and position</p> <p>Alphanumeric keyboard with trackball and time gain control (TCG)</p> <p>Piezoelectric probes electronically scanned: convex and linear</p> <p>Imaging display modes: B, dual B, M, B and M</p>
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Photo: medbes.com

Adjustable field-of-view, 6-level zoom. Imaging technologies: dynamic frequency imaging, multistage focusing, aperture control.  
 Depth range selection: convex sector image and linear image, 3 steps  
 Image orientation: lateral and vertical inversion (in B mode). Freeze function with storage of approximately 25 images.  
 Measurements and analysis:  
 Calibre control: trackball; B-mode image: distance, area and circumference by ellipse and trace method, volume, ratio, gestational age, foetal weight, and angle.  
 Gestational table: user programmable; M-mode: velocity, time interval, depth, heart rate, LV function; Alpha-numeric & graphics:  
 Text annotations and body markers  
 Automatic display of date and time, focal point setting, image orientation indicator, scrolled position, distance scale mark, M-mode time mark, and greyscale for calibration. High-resolution B/W monitor, approximately 25 cm diagonal (across) equals 10 inches, fit with reflection filter. Image greyscale: 256 levels  
 Video output: 625 lines/frame  
 Two transducer ports leave 2 probes permanently available, electronic switch between probes. Data communication interface: RS232, BNC, IEEE, USB or equivalent  
 Power supply: 230 V / 50 Hz

Supplied with:  
 1 x Convex abdominal probe, frequency range: 2.5 / 3.5 / 5.0 MHz  
 1 x Convex trans-vaginal probe, frequency range: 4.5 / 6.5 / 8.0 MHz  
 2 x Bottle of ultrasound gel, approximately 350 ml  
 1 x Set of spare fuses  
 1 x Plastic protective dust cover  
 1 x Instructions for assembly, use and maintenance in English  
 1 x Digital B/W video printer with data connection cable to ultrasound scanner:  
 Thermal printing head  
 The resolution, approximately 400 dpi  
 Grey level gradations: 256  
 1 x Printer head cleaning sheet  
 1 x Set 10 video printer paper rolls, length approximately 20 m  
 1 x Instructions for assembly, use and maintenance in English  
 1 x Matching trolley:  
 Sturdy and stable construction on 4 antistatic swivel castors, two with brakes  
 Diameter castors, approximately 120 mm  
 Carrying capacity: approximately 50 kg  
 Protective bumpers at all four corners  
 The side handle facilitates transport and positioning  
 The top surface fits an ultrasound scanner, as well as a folded-open keyboard

		<p>Underneath shelf fits video printer  Side support provides for safe storage of 2 probes  Material: epoxy-coated steel  Knockdown construction  Set of tools required for assembly  Detailed step-by-step line drawing-based instructions for assembly  Overall dimensions, approximately: 0.60 x 0.50 x 1.00 m (l x w x h)  1 x Instructions for assembly, use and maintenance in English</p>
28.	<p>VDRL</p>  <p>Photo: rapidlabs.co.uk</p>	<p>Rapid immunochromatographic assay for the qualitative indication of antibodies (IgG, IgA, IgM) against <i>Treponema pallidum</i>:</p> <p>Technology: Rapid immunochromatographic assay  Format: Cassette, 30 tests  Sample type: Whole blood, serum, plasma  Sample volume: 20µl (whole blood), 10 µl (serum, plasma)  Sensitivity: 99.3%; Specificity: 99.5%; Time to result: 5 - 20 mins</p> <p>Items supplied with:</p> <ul style="list-style-type: none"> <li>· Test devices with desiccant in an individual foil pouch, 30</li> <li>· Assay diluent, 1 x 4 ml/vial</li> <li>· Blood transfer devices, 30</li> <li>· Sterile non-safety lancets, 30</li> <li>· Alcohol swabs, 30</li> </ul>
29.	<p>Ventilator (bubble -PAP); neonates</p>  <p>Photo: diamedica.co.uk</p>	<p>Bubble CPAP non-invasive respiratory support system, for all normal, premature and low-weight neonates and infants, with a humidifier, air/oxygen mixer and accessories. Centralized piped infrastructure or bottled oxygen in combination with an external compressor for air is advised. The oxygen Concentrator is not suitable for oxygen sources.</p> <p>Continuous Positive Airway Pressure (CPAP) system for the non-invasive respiratory support of patients with spontaneous breathing:  The Bubble CPAP system is suitable for normal, premature, and low birth weight neonates and infants up to 5 kg with spontaneous breathing.</p> <p>The system is composed of a CPAP generator, a humidifier and an air/oxygen mixer (depending on the available model, the system can be composed of the above-mentioned independent devices or an electric CPAP generator with an integrated air compressor and air/oxygen mixer and with separate bubble regulator and humidifier).</p> <p>CPAP generator features:  Pressure range 0.5 - 9.6 cm H<sub>2</sub>O (up to 20 cm H<sub>2</sub>O continuous adjustable CPAP pressure; pressure indicator, bubble water column with pressure overflow valve separate filling funnel, water reservoir</p>

capacity 500 ml electronic pressure/flow regulated CPAP generator; rail/pole clamp.


Humidifier features:  
 External electric heating and humidifying chamber suitable for heated and non-heated closed patient circuits relative humidity output up to 100 % adjustable output temperature up to 36 °C maintain constant CPAP at outlet overheating protection rail/pole clamp.



Air/oxygen mixer features:  
 external mechanical or electronic integrated air/oxygen mixer (depending on the available model)  
 output flow range 0 - 15 l/min  
 oxygen mix 21 - 100 %  
 Separate mixer with medical air and oxygen inlets (3.0 - 6.5 bar) or integrated air compressor and oxygen inlet in the CPAP generator (configuration depends on the available model)  
 with separate flow-meter or display visualisation, if integrated into the CPAP generator (configuration depending on the available model)  
 alarm for out-of-scale air and oxygen supply  
 rail/pole clamp

All components of the system (single-use filters and patient circuits excluded) are suitable for disinfection with hospital-grade products.  
 Supplied with pole mounting system, wheeled and with brakes  
 Built-in rechargeable battery, autonomy >1 hour, automatic switch to battery in case of power failure, automatic recharge on connection to mains (only applicable to the electric CPAP generator model)  
 Power requirements (humidifier, electric CPAP generator if supplied)  
 230 V / 50 Hz  
 Power consumption 300 - 400 W (depending on the available model)

ITEMS SUPPLIED WITH:  
 3 x single-use or 4 x reusable patient circuits (depending on the available configuration)  
 1 or 2 sets of extra small, small and medium size reusable CPAP head bonnets (depending on the available configuration)  
 10 x nasal cannulas, soft and atraumatic, extra small size for premature neonates  
 10 x nasal cannulas, soft and atraumatic, small size for the term and older infants  
 1 x set of hoses for oxygen and medical air (if applicable) supply, length > 2 m  
 Instructions for assembly, use and maintenance in English, French and Spanish



		1 x Plastic protective dust cover Instructions for use in English
30.	<p>Ventilator; Intensive Care, for adult and paediatric patients, AC and battery powered</p>  <p>Photo: med-sources.com</p>	<p>Not suitable to use with Oxygen Concentrator unit as a source of oxygen;</p> <p>Automatic ventilator for adult and paediatric patients. Trolley with handles, 4 antistatic swivel castors and 2 brakes. Designed for frequent and easy dismount and disinfection with hospital-grade products. Electrical medical air compressor, electronically controlled Air/O<sub>2</sub> mixer, Humidifier. Patient selection: adult and paediatric</p> <p>Ventilation modes (the available ventilator model may provide a minimum set, additional modes): Pressure controlled (PCV) Volume controlled (VCV); Volume Target Pressure controlled (VTPC) or Pressure Regulated Volume control/guaranteed (PRVC); Controlled Mandatory ventilation (CMV); Synchronised Intermittent Mandatory, Pressure and Volume controlled (P-SIMV and V-SIMV). Pressure Support modes, including Continuous Positive Airway, Pressure (CPAP) and Intermittent Positive Pressure (IPPV), Bi-level modes, Spontaneous, Non-Invasive, Manual</p> <p>Controls and settings:</p> <p>Positive End Expiration Pressure (PEEP) 0 - 50 cmH<sub>2</sub>O, with settings for paediatric and adult patients; Pressure Support 0 - 70 cmH<sub>2</sub>O</p> <p>Tidal Volume 20 - 2,000 ml with settings for paediatric and adult patients; Frequency 5 - 100 bpm with settings for paediatric and adult patients; I/E ratio 1:10 - 4:1; Inspiratory Flow 1 - 160 l/min with settings for adult and paediatric patients; Inspiratory Time 0.1 - 9.6 s</p> <p>Trigger I: Pressure trigger -20 - 0 cmH<sub>2</sub>O; Flow trigger 0.5 - 15 l/min</p> <p>Trigger E: 5 - 50 %; FiO<sub>2</sub>: 21 - 100 %; Air filter capacity at inlet: 99 % &gt; 0.5 micron; Reusable, removable and disinfected expiration valve/flow sensor, Safety pressure release valve.</p> <p>Monitored and measured parameters: i.e., T<sub>i</sub>, T<sub>e</sub>, tidal volume V<sub>ti</sub> and V<sub>te</sub>, minute volume, frequency, inspection and expiratory pressure and flow, PEEP, FiO<sub>2</sub>, compliance, resistance curves (waveforms): pressure - time, flow - time, volume - Time Loops: pressure - volume, flow - volume, pressure - flow; Trends and system log storage. Audio and visual alarms: multilevel, Pressure (H/L), Frequency (H/L), expired Tidal and Minute Volume (H/L), FiO<sub>2</sub>, PEEP, apnoea, patient circuit disconnection and leakage, O<sub>2</sub> and air supply, AC and battery power, system status, service/maintenance. Display (flat colour panel) showing operational status, set and measured parameters and values, waveforms and alarms/errors (ventilation parameters, power and system events). Self-diagnosis and integrity testing, with live system monitoring. Adjustable patient-circuit support arm. Built-in rechargeable battery, autonomy &gt; 1 hour.</p> <p>Automatic switch to battery in case of power failure, automatic recharge on connection to mains. Power requirements 230 V / 50 Hz</p>

		<p>Power consumption 600 - 800 W (depending on the available model)</p> <p>Items supplied with:</p> <ul style="list-style-type: none"> <li>1 x paediatric reusable breathing circuit (tubes/balloon/valves/mask)</li> <li>1 x adult reusable breathing circuit (tubes/balloon/valves/mask)</li> <li>1 x spare humidifier bottle</li> <li>1 x spare rechargeable battery pack</li> <li>1 x set of spare fuses</li> <li>1 x spare parts/maintenance kit (air filters, tubing, sealing/O-rings)</li> <li>1 x plastic protective dust cover</li> </ul> <p>Instructions for assembly, use and maintenance in English</p>
31.	<p>X-Ray Machine; Diagnostics, stationary, HF</p>  <p>Photo: gzmayed.com</p>	<p>Stationary; 500 mA, 150 kV high tension transformer, two-tube system, Tilting bucky table; x-ray tube with housing and H.T. cable, collimator electronic-controlled; tube stand; vertical bucky stand. Generator/ Radiography: 150 kV, 300 mA or better; 125 kV, 300mA or better; 100 kV, 500 mA or better, 50 KV, 500 mA or better; Fluoroscopy at 120KV, 4mA or better; Adjustable range of timer: Radiography: 2 pulses to 5 sec or better; fluoroscopy: 5 minutes or better; H.T. Transformer: Max 500 mA, 150KVp, silicon rectifier type. Tilting Bucky Table; Table Length: minimum 2000mm; width side rail: minimum 675 mm: Table top height in Horizontal position: 750-850 mm from floor level; tilting range: 15° or more to 90°; the motor is driven by foot switch and hand switch; Bucky device: film size: 14inches x 17 inches cm; X-ray tube assembly: rotating anode/dual focus; 150KV or more; effective focal spot size: 0.6/1.5 mm or better; anode rotating Speed: 3000 rpm Heat Storage: 140,000H.U. (minimum); Accessories: Film cassette with intensifying screen (green); 14" x 17", 14" x 14", 10" x 12", film hanger support rack; thickness calliper; desk type film illuminator; cassette pass-box; protective apron; goggle; gloves; liquid thermometer; hanger, SS; polyethene bottle; filmmaker; film corner cutter; clip for the film; tray for developing.</p> <p>Power Requirement: 150 KW, 3-phase, 230 V/400 V, 50 Hz</p>
32.	<p>X-ray machine, Digital radiography</p> 	<p>Digital Radiography system with a flat panel detector, capable of taking digital images in horizontal, vertical and oblique positions of all skeletal bodies, including spine and chest:</p> <ul style="list-style-type: none"> <li>• Integrated tube stand assembly with no wall/ceiling supports to ensure fast installation;</li> <li>• 4-way floating tabletop examination bed ;</li> <li>• Rotating Tube stand that supports off-table radiography;</li> <li>• High-frequency generator with automated exposure control (AEC) and programmable anatomical radiography (APR);</li> </ul>

<p>Photo: indiamart.com</p>	<ul style="list-style-type: none"> <li>• Wall stand for chest radiography;</li> <li>• The detector should be fixed type and move between horizontal and vertical positions;</li> <li>• Maintain and manage data bank of all patient and image data; and</li> <li>• Retrieve and reproduce accurate, high-quality, high-resolution images from stored data without losing image quality;</li> </ul> <p>The generator should be of the latest high-frequency inverter technology for constant output and the lowest radiation doses;</p> <ul style="list-style-type: none"> <li>• Solid state high frequency (20 kHz or more) generator with minimum ripples having at least 80 kW output. The latest compact size generator assembly is preferably integrated into the table;</li> <li>• Kv range: 40 -150 kV with 1 kV steps;</li> <li>• Exposure time range: 1 millisecond (or less) to 5 seconds (or more);</li> <li>• Digital Display of mA, kV, and mAs on console panel;</li> <li>• Should have 800mA or more at 100KV, AEC device;</li> <li>• More than 250 anatomical programmable radiography (APR) presets are loaded for ease of use;</li> <li>• Power input to be 230-240 VAC, 50 Hz or three phase 380-415VAC, 50Hz with transformer provided by the supplier if the voltage is different, fitted with an industrial plug;</li> <li>• Automatic compensation of the line tension of at least <math>\pm 10\%</math>. i);</li> <li>• Resettable overcurrent protection shall be fitted with an electromagnetic circuit breaker; and</li> <li>• Voltage spike protector of appropriate rating minimum 1.3 times rated power of x-ray generator;’.</li> </ul> <p>X-RAY TUBE AND COLLIMATOR</p> <ul style="list-style-type: none"> <li>• It should be a high-speed rotating anode dual focus tube of 2600 rpm or more compatible with the generator;</li> <li>• Should have dual focal spots with the following focal spot size range: small focal spot size: 0.6 or better, large focal spot size: 1.2mm or better. A smaller focal size would be preferred;</li> <li>• mA range: 10-600 milliampere or more;</li> <li>• mAs range: 0.5-600 (or more);</li> </ul>
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- Tube anode heating capacity: at least 300KHU or more;
- Tube anode, heat dissipation capacity: at least 40 KHU per minute;
- Should have a collimator with auto-off function;
- Incoming voltage indicators should be present.;
- Automatic exposure control (AEC) should be available;
- Manual shutter control collimator;
- Should have a multi-leaf collimator having halogen/bright light source with auto shut provision for the light; and
- It should have overload protection.

#### X-RAY TABLE / HORIZONTAL BUCKY

- The tabletop should be a carbon fibre top of at least 220 cm (length) and 80 cm (width)
- Table top height (from the ground) to be at least 65cms.
- Table top material to have low radiation absorption.
- The unit should be coupled to a horizontal table with a floating table top with longitudinal (at least +/- 43cm) and transverse (at least +/- 11cm) movements.
- It should have front pedals with electromagnetic locks for locking and releasing the table movements.
- The table should have a mobile bucky with a grid ratio of 12:1 (or better) at a focal distance of 115 cm. The bucky should be compatible with a standard size cassette 35\*43cm (14" x17" ).
- Auto-centering of X-ray tube over the bucky (in the transverse direction) after every exposure.
- Two AEC chambers and one Ion chamber.
- It should have a weight-bearing capacity of 200kg or more.
- Power input to be 220-240VAC, 50HZ
- Patient hand grip

#### VERTICAL TUBE STAND

- Tube stand to be integrated with table requires no wall/ceiling support
- It should have manual locking for various movements
- It should have movements in all directions, i.e. 3D transverse 140 cm or more, longitudinal 290 cm or more and vertical 125 cm or more.
- All movements should have electromagnetic brakes with a fully counterbalanced mechanism.
- It should have the facility to display FFD/SID (Source to Image Distance) in vertical positions 150 cm or more and horizontal positions 180 cm or more.
- It should have a provision of auto centring with the detector.
- Tube rotation at vertical axis and horizontal axis +/- 180°.
- Cranio-caudal tube tilt (tilt along the long axis of the table) to be -200 to +200 or better

#### VERTICAL DETECTOR STAND


- It should have an in-built detector capable of taking digital images in horizontal, vertical and oblique positions with suitable movements, allowing for a complete range of exams from the skull, and skeletal body, including spine, chest, knee and ankle exams.
- It should have a vertical bucky with an oscillating/moving grid for chest radiography (grid ratio - 10:1 or better).
- It should have a provision to do chest radiography without a grid.
- It should have automatic exposure control with at least 3 fields.
- The detector should be capable of rotating on its axis from +90 to -15°.
- The vertical movement range should be 125cm or more, with the lowest point (from cassette centre to ground) being not more than 55cm and the highest point not less than 175 cm.
- The bucky should have an electromagnetic lock that allows for easy positioning.


Digital detector:

- Two detectors were on the radiological table and one on the vertical/chest bucky.
- The detector size should be 35 cm x 43 cm or more.
- The active matrix size should be 2800 X 2400 pixels or more at 140µm pitch.
- It should have a minimum image depth of 16 bits.
- Housing material: built-in material resistant to blows and falls
- Interface: Ethernet (1000 Base-T). Cables and necessary input and output devices (USB) to connect it to the Computer.
- The detector software shall be capable of operating with Windows 8 (OS) or higher (This shall be with licensed software for OS and Applications)


DR WORKSTATION (IMAGE ACQUISITION, IMAGE PROCESSING)

- The digital workstation should be based on the latest high-speed processors of at least 32-bit.
- It should have the capability of acquiring the image from the detector system.
- It should have a preview time of 5 seconds or better.
- The system should be ready DICOM interface and networking capability with RIS/HIS/PACS.
- Should provide for HL-7 compatible interface.
- Advance Post Processing Software with function: for sorting patient images based on name, date and exam. Using predefined parameters or user-defined and stored image parameters;
- Correcting typographical in the patient demographic module, in case RIS connection was down, and manual data entry was done;
- The capability of changing R/L, Flipping, Rotating, Zooming, Collimating, and annotating the incoming image.
- Workstation: one (1) latest Pentium system, Processor (Intel Core i5 or better): 2.4 GHz or better, with Windows 8.1, Windows 10 (OS) or higher, minimum 8 GB RAM, minimum 1.0 Tera-Byte Hard disk, Medical grade 19" monitor supported by all necessary software for all the various DR functions. All the accessories like mouse, keyboard and power cable.

<p>33. X-ray machine, mobile, HF generator</p>  <p>Photo: viaglobalhealth.com</p>	<p>Easy to use, handle and park, suitable for hospitals and clinic facilities. With a 4.0 kW high-frequency generator, it can be plugged into a standard outlet (16 A). It is suitable for all examinations, including but not limited to thoracic, abdomen and bones from spine to extremities. The arm's clearance, the x-ray tube and collimator movements provided all angulations required for standard and specific exams and adapted to all radiographic exams. Large diameter wheels at the rear and free spinning wheels at the front allow easy movements of the unit. The safety system includes a powerful brake hold to stop the unit whenever it is used on inclined or uneven floors. The operator uses the support bar at the unit's rear to easily negotiate door and elevator thresholds.</p> <p>4 KW - 115 kV - 200 mAs - 100 mA frequency converter using IGBT components or equivalent. Fully microprocessor driven, rotating anode tube - Focuses 0.6 &amp; 1.5 mm; kV adjustment from 40 to 115 KV mAs, adjustment from 0,1 to 200 mAs, 25% steps. Exposure time: from 1 ms to 10 s; Falling load operation Automatic mains adaption Mains: 230 V, 12 A</p> <p>Generator:</p> <p>High Frequency, 300 kHz - Output power 4 kW - Settings in graphyne: kV:from 40 kV to 115 kV, accuracy: +/- 5 % mA: 5,6,4,8,10,12.5,16,20,25, 32,40,50,64,80,100 mA time: from 0.001 s to 10 s, 41 steps by 25 % mAs: from 0.1 to 200 mAs, 34 steps by 25 % Accuracy: +/- 5 %</p> <p>Power supply: Maximum current at 230 V; 50 Hz: 30 A</p> <p>Maximum current at 230 V; 50 Hz: Single phase Mains supply adaption from 100 to 240 VAX +/- 10 %</p> <p>Output power adaptation regarding voltage Power supply cable length:6m</p> <p>Hand switch cable length: 3 m x-ray tube - Rotating anode - Anode angle: 15° - Focal spot sizes: 0.6 mm and 1.4 mm - Anode heat storage capacity: 40 000 HU</p> <p>Collimator - manual with light beam - Timer: 30 s</p> <p>Rolling system - Two big wheels on the rear (ø: 40 cm) - Two small free wheels on the front - Braking system: manual brake on rear wheels with declutching system</p> <p>Tube assembly - Fully equilibrated at any position - Vertical parking of the arm for easy transportation - Two axis rotation of the x-ray beam and one axis on the collimator Technical data Ground for focus distance: minimum 420 mm / maximum 1900 mm Rotation of the tube:</p>
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		lateral +/- 145° / vertical + 40° /-165° Rotation of the collimator: +/- 90°
34.	X-ray machine; panoramic; dental  	Generator Constant potential, resonance mode high frequency 80-150 kHz X-ray tube D-054SB-P; Focal spot size 0.5 x 0.5 mm (IEC 336) Total filtration min. 2.5 mm Al equivalent Anode voltage 50-84 kV; Anode current 0.5-16 mA DC Exposure time Pan 2.7-16 s, Scanning Ceph 6.4-9.9 s, ProCeph 0.1-0.8 s, Tomo 3 s / frame; SID Pan 500 mm (19 in.), Ceph 170 cm (67 in.) Magnification Pan 6 x 147 mm, Ceph 1.08-1.13; <b>CCD</b> pixel size 48 μm Image pixel size 48/96/144 μm selectable; CCD active surface Pan constant 1.2, Ceph 6 x 295 mm; Resolution (digital) Pan max. 9 lp/mm, Ceph max. 5.7 lp/mm Image field (digital) Pan 14 x 30 cm (5.5 x 12 in.), Ceph 24/27 x 18/30 cm (9/10.6 x 7/11.8 in.). File size, un-compressed (digital) Pan 4-33 MB, Ceph 7-16 MB Line voltage 230 V, 50 Hz; Regulation Automatic, ±10 %; Line current 8-16 A  Photo: indiamart.com

### Specific Specialized Equipment

Nr.	Nomenclature/Description	Specifications
Radiology and Imaging equipment		
1.	X-ray apparatus, direct digital, including table    Photo: or-technology.com	<b>Travel &amp; movements:</b> Source Image Distance - SID: 1400 mm; Vertical travel : 1400 mm (Arm in horizontal position); Distances from the floor to the x-ray tube focal spot : Minimum height: 440 mm Maximum height: 1840 mm; Swivel arm rotation: +90° / -45°  <b>X-ray Generator:</b> High-frequency generator: minimum 40 kHz; High-frequency generator: minimum power 30 kW; Battery supplied generator: minimum 250 Ah; Power line requirement: single phase 208/230/240VAC/50/Hz  <b>X-ray Tube:</b> Focal spot: 0.3 - 1 mm focal points; 12° target angle; Power Large focus: Better than 35 kW (50 Hz); Power Small focus.: 3.2 kW (50 Hz); 1 second start-up time or better. Nominal voltage: 150 kV; Maximum anode heat: 225 kJ or better.



**Collimator:** Manual collimator; Light field indicator luminosity (100 cm from focus) not less than 150 lux; Leakage radiation: < 40mR/h  
Leakage radiation: < 40mR/h

**DDR Digital acquisition system:** Maximum image size: approximately 400 x 400 mm; Cooled CCD camera: 16 bits - 1024 x 1024 pixels;

**Image Processing Software:** Image enhancement and manipulation:

Edge enhancement, Noise reduction, Digital Zoom, Electronic shutters, Video inversion, Brightness & contrast adjustment, Image rotation, H/V swap;

File exportation in JPG/BMP/DICOM

Patient Management Software

**Controlling PC :** Mini tower, Intel Core2 Duo processor or latest version; 2 GB RAM memory; Graphic board, resolution 1280 x 1024, 32 bits colours; 2 x 250 GB Hard disks - 7200 rpm (SATA); DVD R/RW Burner; 6 USB 2.0 ,1 RJ45 10 -100 - USB; Optical mouse - Qwerty keyboard in English; Windows **XP Pro or latest** : English;

**Monitor:** LCD, Not less than 17", 85Hz at 1280 x 1024 max. the resolution, "Energy Star" ; Contrast: not less than 500:1; Brightness: not less than 300 cd/m

**Table** Diagnostic; Integrated to tube stand; stable and sturdy; capable of horizontal forward and backward movement 50 cm to and from; 15<sup>o</sup>-90<sup>o</sup> tilt movement

The tabletop is made of a resin material that is resistant to acid, base, and other toxic chemicals; easy to clean. Capacity: > 150 kg

**Power supply:** 230 V ± 10 %, 50 Hz; Power connector- European standard Type C;


**Certification requirements:** The Manufacturer should have International quality control certificates; **ISO 9001; ISO 13485**

The delivered equipment must comply with: IEC 601-1-88; and European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue.

**Spare parts**

Spare parts must be priced in an overview but will not be part of the procurement.

Spare parts must be available at least 8 years after delivery

		<p><b>Documentation (per unit):</b> User' s manual; Service manual; English.</p> <p><b>Guarantee period:</b> 12 months from the date of putting into operation</p>
2.	<p>X-ray Machine; HF; Radiographic/Fluoroscopic 800-1000 mA; 125 Kvp; stationary</p> 	<p><b>A medical diagnostic X-ray machine</b> is used for general radiography with fluoroscopic examinations. All medical x-ray equipment and accessories for such equipment <i>must</i> conform to the requirements of the Radiation Emitting Devices Act and the Food and Drugs Act or similar regulations of the European community. The former regulations specify design, construction and performance standards for radiation safety and are mandatory requirements for new equipment only. The latter regulations encompass all safety considerations and the question of efficacy for all medical x-ray equipment, both old and new. It is the responsibility of the manufacturer or distributor to ensure that the equipment conforms to these regulatory requirements.</p> <p><b>Unit Configuration/Standard Composition:</b></p> <ul style="list-style-type: none"> <li>· X-ray Generator; High Tension Cables; X-ray Tube Assembly; X-ray Tube Support Assembly;</li> <li>· X-ray Table; Automatic Exposure Control; Vertical Cassette Stand; Spot Film Device;</li> <li>· Imaging System; Control Console; Automatic Injector; Film/Cassette Changer;</li> <li>• Accessories</li> </ul> <p><b>X-ray Generator</b></p> <p><b>Generator:</b> High-frequency inverter system; Rating 80 kW or higher;</p> <p><b>Radiography Tube voltage:</b> 50-150 kV or better</p> <p style="padding-left: 40px;">Tube current: up to 1000 mA</p> <p><b>Fluoroscopy Tube voltage:</b> 50-120 kV</p> <p><b>Power Source:</b> Single or three-phase</p> <p><b>High Tension Cables</b></p> <p><b>High tension sockets:</b> For two tubes operation; Federal standard or equivalent; <math>\pm 75</math> kV DC capacity for each cable</p>

***X-ray Tube Assembly***

**Anode: Rotating;** Heat storage capacity: 300,000 HU or higher;

**Dual focus Radiography:** 0.8/1.5 mm or smaller

**Fluoroscopy:** 0.5/1.5 mm or smaller

**Total filtration:** Minimum of 2.5 mm Al equivalent; Inherent or permanent filtration: 1.5 mm Al equivalent

**Collimation system:** Multi-leaf; Manually controlled for radiography; Motorized control for fluoroscopy with field lamp and automatic shut-off timer; crosshair centring and pre-indication of field sizes at certain source to image distance (SID). A light localizer or other means to give an average illumination of at least 100 lux at 100 cm or the maximum target-to-image receptor distance. The collimator should incorporate means to indicate the size of the x-ray field at the image receptor.

***X-ray Tube Support Assembly***

**Mounting:** Floor to the ceiling; **Locking device:** Electromagnetic;

**Movements:** Lateral, horizontal and vertical; **Swiveling out of tube assembly:** 180° ; Made in Japan, France, USA or European Countries.

***X-ray Table***

Sliding tabletop and sideways movement; Tilting: 90° /-15° ; Movement: Motorized

Cassette tray Grid: Reciprocating; Ratio: 12:1; Inter-spacer: aluminium

**Accessories:** Detachable foot and head rests; Film cassette holder for cross-table exposure;

Paediatric immobilizer; Head clamp

***Automatic Exposure Control***

**Vertical Cassette Stand:** Grid: Reciprocating; Linear; Ratio: 12:1; Inter-spacer: aluminium

Operation: Manual travelling: tilting and rotating; Rotating and tilting range:  $\pm 20^\circ$

**Spot Film Device** With motorized cassette carriage and operation;

Field size adjustment: Automatic for different cassette sizes; Locking and braking system:

Electromagnetic

Slide parking: with longitudinal, lateral and compression range; Grid Linear: Ratio: 12:1

Inter-spacer: aluminum

**Imaging System**

Image intensifier: Dual format; 9 in nominal diameter or bigger: TV monitor 525 lines/50 Hz or better; Fluoroscopic Image: Automatic freezing and display of the last image

**Control Console**

Solid state SCR switching; Circuit breaker main switch; Line voltage adjustment 180-260 V single phase; 400;460V; 50 Hz 3-phase; Overload protection system

Technique selector: Kilovoltage (kV); Milliamperage (mA); Time (sec or msec and/or pulse) and/or Milliamperage-second (mAs);


Digital read-out or meter: Kilovoltage (kV); Milliamperage (mA); Time (sec or mSec and/or pulse); and/or Milliamperage-second (mAs)

Electronic timer: Radiography: from 0.2 mSec to 5 sec or better; Fluoroscopy: up to 5 minutes

Microprocessor controlled and with anatomical programming function; Audible alarm during radiography and fluoroscopy.


**Automatic Injector:** Flow rate automatic injector; with electromechanical ram and operator controls; with safety circuit devices and mobile stand. Utilizes both disposable and no-disposable syringes; with electrically isolated syringes.

**Film/Cassette Changer.** Programs: Solid state electronically controlled; Motorized programming exposure devices: For at least 4

		<p>sheets/sec; Storage capacity: 30 films or higher; must be coupled to an automatic injector</p> <p><b>Accessories</b></p> <p>X-ray: 1 pc film viewer, 4 banks, 14" x 17" each bank; 1 pc lead apron with a minimum lead equivalence of 0.25 mm lead; 1 pc thyroid shield; 1 pc measuring calliper, sliding, double-sided, scaled in cm, with blunt edges and parallel arm; 1 set of gonadal shields with a minimum lead equivalence of 0.5 mm lead</p> <ul style="list-style-type: none"> <li>· contact shields for male adult, female adult, infant male and an infant female</li> <li>· upright gonadal shield for chest examinations</li> </ul> <p>1 pc lead glass, 80 cm x 60 cm, with a lead equivalence of at least 1.5 mm lead, to be installed into a concrete barrier</p> <p><b>Certification requirements:</b> The Manufacturer should have International quality control certificates; <b>ISO 9001; ISO 13485</b></p> <p>Equipment compliant: IEC 601-1-88; and European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue.</p> <p><b>Spare parts</b></p> <p>Spare parts must be priced in an overview but will not be part of the procurement. Spare parts must be available at least 8 years after delivery</p> <p><b>Documentation (per unit):</b> User' s manual; Service manual, both in English.</p> <p><b>Guarantee period:</b> 12 months from the date of putting into operation</p>
3.	<p>Bucky X-ray Unit with ceiling suspended tube assembly &amp; height adjustable table</p> 	<p><b>Bucky X-ray unit with ceiling suspended tube assembly and height adjustable table</b></p> <p><b>Items Required:</b></p> <ol style="list-style-type: none"> <li>1. X-ray Generator</li> <li>2. X-ray tube and cables</li> <li>3. Ceiling suspended tube assembly</li> <li>4. Height adjustable Bucky Table</li> <li>5. Erect Bucky stand</li> </ol>

<p>Photo: medicalexpo.com</p>	<p>6. Tomographic attachment</p> <p><b>Specification</b></p> <p><b>1. X-ray Generator</b></p> <p>1.1 Micro-processor controlled high-frequency generator for one tube up to 150kV</p> <p>1.2 Nominal rating to be not less than 50kW</p> <p>1.3 State maximum mA at the following kV values:</p> <p>1.3.1. 80 kV</p> <p>1.3.2. 100 kV</p> <p>1.3.3. 125 kV</p> <p>1.3.4. 150 kV</p> <p>1.4 Shortest exposure time to be 1msec</p> <p>1.5 Automatic exposure device and Anatomic program facility</p> <p>1.6 Overload protection</p> <p>1.7 Fault code signalling system</p> <p>1.8 Three-point exposure selection</p> <p>1.9 Automatic mains compensation</p> <p>1.10 Continuous self-check of all generator functions</p> <p>1.11 Digital LED display of parameters</p> <p>1.12 3 phase 380-480V, 50 kVA power supply</p> <p><b>2. X-Ray Tube:</b></p> <p>2.1 A high-speed X-Ray Tube is essential</p> <p>2.2 Dual focus with 0.6mm and 1.2mm focal sizes with ratings compatible with the offered generator</p> <p>2.3 Anode material to be tungsten rhenium molybdenum compound with a high storage capacity</p>
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	2.4	State heat storage capacity and ratings at 0.1 sec. A minimum of 200 KHU are required
	2.5	Set of high-tension cables to suit the installation.
	<b>3.</b>	<b>Ceiling Suspension For Tube</b>
	3.1	Ceiling suspended column for ceiling suspension of tube
	3.2	Longitudinal operating range to cover the room dimensions
	3.3	Vertical travel: 1.5 m
	3.4	Transverse travel to cover the room dimensions
	3.5	Holder for tube assembly to allow rotation of $\pm 180^\circ$ about the vertical axis and $2 \times 90^\circ$ about the horizontal axis.
	3.6	Handlebar with electro-magnetic lock controls for all possible tube
	3.7	Colour coding for ease of operation.
	3.8	Digital display of SID
	3.9	Centering device in a longitudinal and transverse direction.
	3.10	Manual collimator.
	3.11	Sinus and mastoid cones to be included.
	<b>4.</b>	<b>Bucky Table</b>
	4.1	Floating flat top bucky table for routine radiography.
	4.2	Height adjustable from approximately $\pm 55$ cms to 85cms
	4.3	Longitudinal table travel $\pm 110$ cms.
	4.4	Lateral table travel: approximately 24cm.
	4.5	High-speed bucky with cassette tray for cassette sizes of 18 x 24 - 35 x 43 cms (both ways)
	4.6	Electro-magnetic table-top brakes - to be foot operated

		<p>4.7 Flat table-top with flat side rails for accessories.</p> <p>4.8 Three-field automatic exposure chamber.</p> <p>4.9 Grid ratio 12: 1, 40 In/cm suitable for horizontal examination</p> <p>4.10 Cassette holder for lateral radiography.</p> <p>4.11 Compression device to be included.</p> <p>4.12 Radiolucent mattress.</p> <p><b>5. Erect Bucky Stand</b></p> <p>5.1 Vertical wall-mounted bucky stand.</p> <p>5.2 High-speed bucky complete with cassette tray for cassettes 18 x 24 cm to 35 x 43cm (both ways).</p> <p>5.3 Three-field automatic exposure chamber.</p> <p>5.4 Distance between Bucky unit and film to be &lt; 3.5 cm</p> <p>5.5 Grid 12: 1 ratio, 40 In/cm</p> <p>5.6 Lateral arm support</p> <p><b>6. Tomographic attachment</b></p> <p>6.1 A motor-driven linear tomographic attachment is required</p> <p>6.2 Angles of 40, 20 and 8° must be available</p> <p>6.3 Two speeds per angle must be possible. Tenderer to state a continuously variable layer height setting between approximately 20 - 250 mm must be available with an indication on the fulcrum tower</p>
4.	<p>Mammography system, Digital</p>  <p>Photo: medicalexpo.com</p>	<p>Mammography system to replace conventional Film/Screen based Mammography Studies with digital images instant reviewing and analysis capability with stereotactic biopsy facility.</p> <p><b>Operational requirements:</b></p> <p>A full digital mammography system consists of an exposure stand with an attached swivel system, a separate console with a radiation shield, automatic exposure control and a mammography X-ray tube.</p> <p>An integrated direct-to-digital flat detector based on amorphous silicon technology, with a separate workstation for image positioning</p>



and patient demographic data, is required. The workstation should be able to send, receive and print according to DICOM standards. The workstation should also be able to obtain DICOM modality, work list from the connected information system and send information about the performed procedure to the connected information system. Read and Write in CD/DVD for data storage and review.

**Technical Specifications:**

**Mammography System**

The system should consist of a tube head and detector assembly with iso-centric rotation for every position. The iso-centric movements should be motorized. The patient compression device should have an automatic multispeed variable compression system which senses the breast density and adjust the compression force. The maximum compression thickness should be 18 cm or more. The patient table should have motorised grid movement—magnification devices with a ratio of 1.5 and 1.8. A digital display of compression force and compression thickness should be available.

**X-Ray Generator and Tube**

The X-ray generator should be the high frequency with the following parameters:

**kV range:** at least 25-35 kV in steps of 1 kV

**mAs range:** 0-750 mAs or more

**Exposure time:** 0-700ms

**Maximum mA:** 180mA or more

**X-Ray tube unit:** with sufficient capacity; made in France, USA, and Japan

Dual focus rotating anode tube with the following parameters:

**Focal spot size:** 0.1mm and 0.3mm

**Anode heat storage:** 150 KHU or more

**Tube heat Storage:** 1.3 MHU or more

**Anode material:** Molybdenum and Tungsten preferred

The filter material: blue or green

**Flat Panel Detector:**

**Type of detector:** Amorphous selenium preferred

**Detector size:** 24cmx29cm or more with two image formats

**Pixel size:** 70 $\mu$  or less

**Image matrix in pixels:** large size-3Kx 4K or more Small size: 2Kx 3K or more

**Workstation for Image Acquisition:**

The workstation should enable immediate image display for a general survey for patient positioning. It should be able to store not less than 10,000 images. The networking should be on TCPIP protocol.

The following image processing should be possible on the workstation:

**Image display:**

- Freely selectable screen layout
- Windows settings (contrast and brightness setting)
- Magnification, stepped and dynamic zoom

**Image inversion (black/white):****Annotation:**

- Left/right marking
- Text additions
  - Lines
  - Rectangles and circles

**Measurements:**

- Distance
- Angle
- Density

**Image evaluation:****Contrast enhancement (with table):**

- Display of histogram

- Length measurements
- Before /after comparison
- Filter

**Administration:**

- The demographic patient data should be retrieved directly from a HIS/RIS system
- The demographic patient data can be entered manually
- Retrieval of images from CD, DVD or PACS
- Printing of images on DICOM – compatible printers

The workstation should be fully DICOM compatible

A High Contrast 1Kx 1K TFT monitor should be provided with a workstation.

**Biopsy:**

Please quote for the **stereotactic biopsy system** fully compatible with FFDM.

The stereotactic biopsy system should allow a high-resolution image of 20 lp/mm.

**System Configuration Accessories, spares and consumables:**

Mainframe System; X-ray tube Unit & tube; Flat Panel Detector; Image acquisition Workstation; Stereotactic Biopsy System; Archiving System; View Boxes - slim, four-in-one with fluorescent tubes and shutters with magnification device and variable luminescence.

**Environmental factors requirements:**

The unit shall be capable of operating continuously at an ambient temperature of 30°C and relative humidity of 80%. Proper X-ray shielding should be provided for the main equipment. Pre-requisites should be spelt out in terms of Mammography room requirements.

**Power supply:**

Suitable Power input to be 220-240VAC, 50Hz or 380 V/415 V/ 400 V 3-phase, fitted with European standard, hospital grade plug; Resettable over-current breaker shall be fitted for protection. Spike

		<p>protector of appropriate rating should be provided. UPS/CVT of suitable rating conforming to ISO-302 shall be supplied.</p> <p><b>Standards and safety requirements:</b></p> <p>Should be FDA or CE-approved product; manufacturer shall be ISO 9001 certified. Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450. Safety aspects of Radiation dosage leakage should be spelt out. Phantom for the calibration should be provided. Should comply with AERB Guidelines for radiation leakage</p> <p><b>Documentation:</b></p> <p>User and Service manuals in English</p> <p>A list of important spare parts must be priced in an overview but will not be part of the procurement. Spare parts must be available at least 8 years after delivery.</p> <p><b>Certificate of calibration and inspection from the factory</b></p> <p>Manufacturer' s Certificates of ISO 9001, relevant IEC Certificates and European</p> <p>Community certificates for electro-medical equipment safety</p>
5.	Ultrasonic scanner, colour screen, 2D	<p><b>General characteristics:</b> Fully digital; Should have 15” or bigger high-resolution monitor with tilt and swivel; line density of 512 lines; dynamic range&gt;160dB; with penetration depth (Adjustable scanning depth): up to 30 cm.; and up to 4 selectable frequencies in each probe. Must have a minimum of 4 rendering scanning modes with measurements: B, B/B, M, B/M; panoramic imaging up to 240 cm or 180° with colour and cine facility; cine loop not less than 128 frames; can enhance 2D and tissue harmonic penetration and colour sensitivity momentarily to improve visualization in difficult patients; digital image processing; panoramic zoom in real-time and icy conditions; printing of the image on thermal paper; built-in image archive not less than 16 frames; image freezing mode; automatic image optimization.</p> <p>Can perform measurements: distance, circumference, area, angle, volume, velocity, time, heart rate; with two USB ports; video printer and laser printer parts; footswitch operation.</p> <p>Continuous working hours: &gt;= 8 hr</p> <p><b>Display:</b> Built-in colour monitor; PC Based Image management system, preferably windows; non-interlaced; visual displaying mode selection</p>

**Thermal printer:** Black and white thermal video printer, black and white laser jet printer for reporting

**Transducers/Probe: 80Array element R60 or better**

Electronic multi-frequency convex transducer with a basic frequency of 3.5 MHz approximately, in a range from 2.0 up to 5.0 MHz approximately, with continuous or fixed frequency-changing

Electronic multi-frequency linear transducer with basic frequency 7.5 MHz approximately, in a range from 5.0 up to 10.0 MHz approximately with continuous or fixed frequency-changing

Electronic multi-frequency endo-cavity transducer with a basic frequency of 6.5 MHz approximately, in a range from 5.0 to 8.0 MHz approximately, with continuous or fixed frequency-changing

convex probe(standard)

Linear probe (Optional)

Transvaginal probe (Optional)

Micro-convex probe (Optional)

**Examinations and calculations for** Abdominal; Obstetric; Gynaecology; Urology; Cardiology; Small parts; Orthopaedics

The unit shall be capable of operating continuously at an ambient temperature of 40<sup>o</sup> C and relative humidity of 80%. Resettable over current breaker shall be fitted for protection


Spike protector of appropriate rating should be provided. UPS of suitable rating conforming to IS-302 shall be supplied.

**Power supply:** 220 -240 V/50 Hz; +/- 10 %; Built-in controller of power supply; Power connector- European standard Type C

**Components and consumables (per unit):** Gel for research - 1 package, 12 tubes on 250 ml (in case of packing change, the gel total should be less than 3000 ml), Thermal paper - 50 rolls

**Certification requirements:** The Manufacturer must have the following international quality control certificates; ISO 9001; Certificate of calibration and inspection from the factory; IEC 601-1-88; European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue. Should be FDA or CE-approved product, conforms to standards for electrical safety IEC-60601 / IS-13450

**Documentation (per unit):** User' s and service manuals, in English.

		<p><b>Guarantee period:</b> 24 months from the date of putting into operation; 36 months for transducers from the date of putting into operation</p> <p><b>Training:</b> Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the supplier expert.</p>
6.	<p>CT Scan Machine</p>  <p>Photo: researchgate.net</p>	<p><b>Application/Use:</b> Head/spines and body imaging including contrast studies; <b>64 Slice Detector CT Scanner upgradable to 128 slices;</b> comprising of Gantry; Patient Support Couch/System; Detector Acquisition System; X-ray Generator; X-ray Tube; Operator Console; Computer System/reconstruction; (Image collection and Processing); Scan Parameters; Data Image Storage</p> <p><b>Gantry:</b></p> <p>The use of modern slip ring designed technology can support whole body CT Scanning, including whole body angiography; the speed of scan time from 0.4-0.5 seconds or better for sub-second scanning; 0.3-0.4 seconds for partial scan time for trauma and paediatric scanning. Its <b>aperture size</b> is 70 cm or larger; <b>angulation</b> of at least - 30° - / + 2° or better-tilted spiral scanning should be possible. Fields of view at least 500 mm; 64 slice acquisitions with a slice selection of 0.5 mm. <b>Dual control</b> on the gantry to adjust its movements located on both sides of gantry; 3D patient alignment system. The control of the gantry is from the operator console with an intercom between the gantry and operator console and electronic patient breathing instructions in major languages. Digital read-out for couch and gantry positions/settings. <b>Laser positioning lights:</b> Sagittal, coronal and z-axis <b>Gantry size:</b> 172 h x 170 w x 104 d, cm. <b>Gantry opening:</b> 65-75 cm; <b>X-ray fan beam angle:</b> 55° or better; <b>Slice thickness:</b> 1,2,3,5,7,10 mm; <b>Scan Localizer:</b> light beam.</p> <p><b>X-ray tube assembly:</b></p> <p>High-speed rotating anode with dual focal spot technology; Maximum tube voltage: 130 kV or higher; Anode heat storage capacity: 7.0 MHU or higher; anode heat dissipation rate not less than 1200 KHU/minute. Maximum tube current: 200 mA or higher</p> <p><b>Patient Support System:</b></p> <p>Can support up to 205 Kgs; lowest table height to be less than <b>350 mm, max height: 970 mm;</b> longitudinal tabletop travel to be at <b>1700-2000mm</b> or better for complete body coverage; scan range of</p>

the table top must be **1140-1700 mm** or better, patient support movements is motorized t; tabletop width: 47 cm or wider; metal-free table top allowing patient scanning without re-positioning the patient. Control of table movement is from the operator console and gantry. Patient positioning accessories include headrest support, auxiliary cart, table leg extender, security straps, infant immobilizer, flat tabletop, knee support and immobilizing straps. **Table swivel angulation:**  $\pm 12^\circ$  or better; **Scanning range:** 100 cm or higher; **Controls: Remote from the console:** located on either or both sides of the gantry.

**Console:**

At least with 300 pre-programmed scan protocols required

**Operating panel/Control desk:** Displays all scanning parameters;

**Keyboard:** With integrated function keys and mouse control or trackball; **TV monitor:** High resolution, 17" or bigger, TFT LCD. 4.8 GB or better MOD device or similar for image storage required

**Functions:**

Selection of scan parameters, remote control of top couch movement, gantry tilt, Window level and window width adjustment, and Image processing/evaluation functions. Intercom to the gantry for patient instruction. Emergency stop switch for patient safety, x-ray tube protection/display on console required, and electronic patient breathing instructions in major languages.

**Computer system/re-construction:**

Dual operator consoles with a modern 64-bit high-speed computer with 1.5 - 3.0 GB memory or better to support multi-tasking operation to allow simultaneous scanning, reconstruction, viewing, archiving, processing and filming operation. At least 512 x 512 reconstruction matrix and real-time reconstruction for scout view.

**Image Storage and Processing:**

Large image archive to store raw scan and reconstructed data; at least 180 GB disk for images storage and state storage, with possibilities of archive extension. At least 720 GB disk for raw scan data sets, storage capacity, and 9.4 GB DVD or better for image storage.

**Scanogram Processing:**

- Slice position display
- Anatomical scale
- Slice position setting
- Enlargement/zooming

**CT image analysis:**

- ROI setting and processing
- Measurement of distance and the angle between 2 positions
- Histogram
- CT number display
- Volume calculation
- Profile

**CT image processing:**

- Continuously selectable image magnification
- Multi-frame display
- Addition/Subtraction between images
- Comment and annotation insertion
- Top/bottom, right/left, black/white reversal of the image
- Image filtering
- Multi-planar reconstruction/reformatting
- Image stacking
- Image annotation and labelling

**Detector Acquisition System:**

Scattered light, solid state using low dose and high-resolution acquisitions. Multi-slice detector technology for 64-slice acquisition per 360° gantry rotation, comprising not less than 57,000 detector elements with 1800 views per second sampling rates or better. It



should have one per-body collimator, with coupled detector/tube assembly on a slip ring-based gantry design. Calibration and service phantom to be included.

**Isotropic volume imaging voxel size:** 0.5 mm x 0.5 mm x 0.5 mm (acquired voxel size, not reconstructed or voxel size)

**Scan Modes:**

Scout-view for scan planning; single scan mode; scanning with serial and parallel reconstruction; dynamic scan mode; capable of supporting 200 scans in 100 seconds using 0.5 second scan time or better during the spiral scan mode with 64 slices being acquired per gantry rotation within the range of slice thickness.

**Spiral Mode Performance:**

Tilted spiral scan mode with 64-slice; single and multiple spiral sequences and multi-directional spiral sequences, tilted spiral, different reconstruction algorithms.

**X-ray generator:**

Mounted on a slip-ring yoke in gantry; HF, 48-60 Kw for 120Kv and 370-500 mA for 0.5 second-scan time or better. Can support at least 200 scans in 100 seconds using 0.5 second scan time or better during the spiral scan mode. It has four (4) variable Kv settings and variable mA settings up to at least 500 mA or better

**Other features:**

DICOM 3 compatibility; Dual-head CT Injector; 3D Workstation, Laser Camera; upgrades and clinical applications are optional, i.e., CT Fluoroscopy, brain perfusion functionality, CT Colonoscopy, Cardiac Scanning and evaluation, Cardiac Calcium Scoring, Vascular Analysis

**Accessories:** Set of QC phantoms; Headrest support; Adult and baby headrests; Wedges high and low; Headbands; Body straps; Knee support; Arm supports (elbow and shoulder level); Shoulder lowering strap; Leg support accessory; Table extension; Direct coronal headrest; Laser camera imager; Automatic film processor: heavy duty and compatible with the laser camera imager; Sensitometer and densitometer.

		<p><b>Power Supply:</b> 3-phase; 380/400 /415V AC; 50 HZ; fitted with European standard, hospital grade plug; Resettable over-current breaker shall be fitted for protection. Spike protector of appropriate rating should be provided. UPS/CVT of suitable rating conforming to IS-302 shall be supplied.</p> <p><b>Certificate of calibration and inspection from the factory</b> Manufacturer’ s Certificates of ISO 9001, relevant IEC Certificates and European Community certificates for electro-medical equipment safety</p> <p>Spare parts must be priced in an overview but will not be part of the procurement. Spare parts must be available at least 8 years after delivery</p> <p><b>Minimum guarantee:</b> 12 months starting from the date of commissioning</p> <p><b>Training:</b> For Users and Maintenance Engineers in the Manufacturer’ s place.</p> <p><b>Installation:</b> By the expert from the suppliers/manufacturer</p> <p><b>Manuals:</b> User and Service manuals in English</p> <p><b>Maintenance Service:</b> Quarterly PPM during the warranty period; free of service, parts and consumables. <b>2 years Maintenance service contract</b></p>
7.	C-ARM MOBILE X-ray unit	<p><b>Application/Use:</b> General surgical procedures; orthopaedic procedures; peripheral surgical procedures; and neurosurgical procedures.</p> <p><b>Standard Composition</b></p> <ul style="list-style-type: none"> <li>· X-ray Generator</li> <li>· X-ray Tube Assembly</li> <li>· C-arm Stand</li> <li>· Video Imaging System</li> <li>· Image Processing</li> <li>· Control Console</li> <li>· Accessories</li> </ul>

**X-ray Generator:**

**Generator:** High-frequency inverter system

**Radiography:** Max. Tube voltage: up to 100 kV or higher; Max. tube current: up to 30 mA or higher

Max. mAs: up to 100 mAs or higher

**Fluoroscopy:** Max. Tube voltage: up to 100 kV or higher; Max. Tube current: up to 3 mA or higher;

Imaging mode: continuous or pulsed operation

**Power Source:** Single phase, 220 VAC, 50 Hz

**X-ray Tube Assembly:**

Anode: Rotating; Heat storage capacity: 300,000 HU or higher; Dual focus: 0.5/1.5 mm or smaller; Collimator: Iris collimation; semitransparent shutters

**C-arm Stand:**

Arc orbital/ circular movement or C-arm rotation 115° or better; Left/right wig-wag scan/pivoting on the vertical axis (or C-arm oscillation/ panning movement/ C-arm rotation about the shift axis): + 12.5° or better; Vertical travel/up-down movement: 45 cm or higher; Horizontal travel/back and forth movement (or longitudinal displacement): 20 cm or higher; Rotation of the C-arm holder about the horizontal axis (or C-arm swivelling): + 180° or better; Focus to Image Intensifier (II) distance: 90 cm

**Video Imaging System:**

Image Intensifier: Dual mode: 6" /9" in input field size; Resolution: 46 lp/cm or better; TV camera: High resolution charge-coupled device (CCD) camera; Left/right image reversal; Top/bottom image reversal. Real-time zooming; Image rotation; Video signal: 525 or 625 line

**Video Monitor:** Diameter 16" ; with Automatic brightness control

**Image Processing:** Image storage: Last image hold; Digital memory capacity: 4 images or more

		<p><b>Image Display:</b> Multi-image display; Annotation; Cyclic display; Re-masking</p> <p><b>Hardcopy:</b> Radiographic film; capability or thermal printer</p> <p><b>Control System:</b> Entire system is computer-controlled; software can be upgraded</p> <p><b>Control Console:</b> Operating parameters: Digital display; Audible alarm hand exposure switch or button.</p> <p><b>Accessories:</b> X-ray cassette holder: 10" x 12" size or bigger; Sterilizable handles; Sterilizable cloth covers</p> <p><b>Certificate of calibration and inspection from the factory</b></p> <p>Manufacturer's Certificates of ISO 9001, relevant IEC Certificates and European Community certificates for electro-medical equipment safety.</p> <p><b>Documentation:</b></p> <p>User and Service manuals in English</p> <p>A list of important spare parts must be priced in an overview but will not be part of the procurement</p> <p><b>Training:</b> Users on operational techniques and safety and maintenance technicians on PPM</p>
8.	Image intensifier unit, Mobile C - arm	<p>i1. Unit to be a mobile C-arm capable of continuous, pulsed and high-resolution fluoroscopy and radiography. High resolution/standard image quality</p> <p>2. FLUOROSCOPY</p> <p>2.1. Automatic dose rate control;</p> <p>2.2. Fluoroscopy rating to be from <math>\pm 40\text{kV}</math> to <math>\pm 110\text{ kV}</math>;</p> <p>2.3. Maximum tube current for fluoroscopy to be <math>\pm 3</math> to 6 mA; Up to 12 mA for boost fluoroscopy;</p> <p>2.4. Maximum digital snapshot exposure to be 110 kV at 12 mA;</p>

2.5. 1 kV adjustment to be available; +/- 0.5- 200 mAs selection;

2.6. Fluoroscopy timer; 5-minute with audible alarm;

2.7. Focus size  $\pm 0.5$  mm;

2.8. Automatic beam collimation and iris diaphragm adjustment to image intensifier size;

2.9. Automatic kV and mA control must be available

3. RADIOGRAPHY

3.1. Voltage range to be from  $\pm 40$ kV to  $\pm 110$  kV;

3.2. Focal spot size of  $\pm 1.0$  mm required;

3.3. A maximum exposure output of  $\pm 200$  mAs at 80 kV & 100 mAs at 110 kV must be possible;

3.4. Cassette holder for 24 cm x 30 cm included

4. IMAGE INTENSIFIER

4.1. A 23/15 cm image intensifier to be supplied

5. T.V. SYSTEM

5.1. Two flicker-free monitors  $\pm 44$ cm to be included in the unit;

5.2. Image rotation must be available from the C-arm stand;

5.3. Image storage for 8 images must be available as standard;

5.4. Digital image processing & storing functions via a remote control device, including the following; Image storage & recall from memory; Fluoroscopy image zooming; edge enhancement adjustment; window width/level adjustment;

		<p>5.5. High-resolution CCD sensor to be utilized;</p> <p>5.6. Last Image Hold to be included;</p> <p>5.7. All above to be mounted on a stable, lightweight trolley with large lockable castors</p> <p>6. C-ARM</p> <p>6.1. Motorized height adjustment <math>\pm 45</math> cm</p> <p>6.2. Longitudinal movement <math>\pm 200</math>mm</p> <p>6.3. Horizontal panning movement <math>\pm 20^\circ</math></p> <p>6.4. Orbital movement <math>\pm 210^\circ</math></p> <p>6.5. Focal spot to image receptor distance <math>\pm 90</math>cm</p> <p>7. GENERATOR</p> <p>7.1. Generator to be high-frequency DC inverter type</p> <p>7.2. Control panel to be easily cleanable</p> <p>7.3. C-arm and generator to be mounted on an easily steerable stand with large castors and an efficient braking system</p> <p>7.4. Parallel lateral scanning along the length of the patient capable</p> <p>8. ACCESSORIES</p> <p>8.1. Set of sterilisable fabric covers and necessary fitment devices to be supplied</p> <p>9. THERMAL PRINTER</p> <p>9.1. Thermal printer for printing clinical images</p>
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9.2. Thermal print paper (A4)

10. DIGITAL SUBTRACTION ANGIOGRAPHY 10.1.

10.1 Real-time DSA performance with a variety of radiographic modes and image processing functions by foot-switch control is required

10.2. The following image recording modes must be present

- Real-time DSA
- Peak-hold DSA
- Continuous fluoroscopy
- Road-mapping
- The image display should include the following
  - Annotation
  - Cyclic display
  - Re-masking

10.3. Multi-image display of 4 and 16 images on one monitor

10.4. Hard disk storage to be +/- 1800 frames


10.5. Optical disk recorder to be offered with a storage capacity of  $\pm$  480 frames per disk

10.6. Image acquisition to be 3 frames per second


10.7. Data output to a PC should be possible

11. LASER POINTER

11.1. Projection of the centre point on the patient should be possible

		11.2. It should also be visible during LIH on the monitor to confirm the position and for dose saving
9.	<p>Laser Imager, High Capacity</p>  <p><u>Photo: konicaminolta.com</u></p>	<ol style="list-style-type: none"> <li>1. The Imager must use a laser head for exposing the film, not a direct thermal exposure method;</li> <li>2. Minimum Cycle time required to produce one hard copy in a DICOM; ANALOG; DIGITAL environment;</li> <li>3. The Unit must utilise a dry technology without the need for any replenishable chemicals;</li> <li>4. The Unit must be Daylight Loading;</li> <li>5. Uses a 14 x 17-inch film, or the least cost quality film in the market;</li> <li>6. The unit must be capable of accepting at least ten inputs. This allows for the future expansion of the department. At least one of each of the following types: <ol style="list-style-type: none"> <li>6.1 . DICOM input</li> <li>6.2 . Analogue input</li> <li>6.3 . Digital input</li> </ol> </li> <li>7. The Laser Imager must be capable of printing at least 500 DPI for the printing of high-resolution Mammography Images from the CR or Digital mammography units;</li> <li>8. The Unit must utilize a true 12-bit grayscale printing technique;</li> <li>9. The Laser imager must be capable of printing at least 120 films/h using a 14 x 17 film size. Systems with higher throughput at the specified film size and resolution are advantageous and preferred;</li> <li>10. The Laser Imager must have an automated method of Quality control that requires no input from the operator;</li> <li>11. The Laser Imager must have two separate supply trays loaded and accessed according to the film size selected at the printing modality. Provide the option for a third supply tray of a different film size than the standard two film supply trays included;</li> <li>12. An optional 10 Bin Sorter should be available to allow for the sorting of the different modalities connected via the network to the Laser Imager;</li> </ol>



		<p>13. The System must be reasonably quiet while in operation and free of smells/odourless during the etching of the film;</p> <p>Information on image formats, as well as the film sizes for the Laser Imager, is available</p>
10.	<p>MRI</p>  <p>Photo: <a href="http://sah.org.au">sah.org.au</a></p>	<p>Clinical Application: Whole Body</p> <p>Surface Coils: Head and body coil standard; all other coils optional, e.g., abdomen, spine, breast, knee, shoulder, cardiac imaging coils with spectroscopy</p> <p>Synchronization: ECG/peripheral, <u>respiratory gating</u>,</p> <p>Pulse sequences: Standard: SE, IR, 2D/3D GRE and <u>SPGR</u>, <u>Angiography</u>: 2D/3D TOF, 2D/3D Phase Contrast; 2D/3D FSE, 2D/3D FGRE and FSPGR, SSFP, FLAIR, EPI</p> <p>Imaging Modes: 2D single slice, multi-slice, and 3D volume images, multi slab, cine</p> <p><b>FOV:</b> 1 cm to 48 cm continuous</p> <p>Slice thickness: 2D 0.7 mm to 20 mm; 3D 0.1 mm to 5 mm</p> <p>Display Matrix: 1028 x 1024 or better</p> <p>Measuring Matrix: 128x512 steps 32-phase encode</p> <p>Pixel Intensity: 256 grey levels</p> <p>Magnet type: Superconducting</p> <p>Power requirements: 400/230 V, 50 Hz, 3-phase</p> <p>Cooling system type: Closed-loop, water-cooled gradient</p> <p>Cryogen use L/Hr: less than 0.03 L/Hr, liquid helium or equivalent</p> <p>Field strength: 1.5 T</p>
11.	<p>Ultrasound Scanner; 3D colour doppler</p>	<p>High-resolution 15-inch TFT monitor, with omnidirectional arm; one-touch image optimization; Multi-beam Parallel Imaging;</p> <p><b>Synchronous Navigation:</b> on-screen instruction for manual-free operation;</p> <p><b>Thumbnail:</b> easy image review during live scanning; User-programmable data tables/graphs, formulae, measurement and report;</p>

Multiple frequency transducers; capable of providing fast and efficient storage, review, management and transfer of imaging and patient data

**Probes:** convex probe(standard)

Linear probe (Optional)

Transvaginal probe (Optional)

Micro-convex probe (Optional)

**Open communication platform:** DICOM, multiple file formats, and onboard and removable media storage.

**Comprehensive imaging modes:**

2D, M, PW, CW, HPRP, Colour, Power and Directional Power Doppler, Tissue Harmonic Imaging, trapezoid Imaging.

**The broad range of clinical applications:**

Abdomen, Obstetrics, Gynaecology, Urology, Small Parts, Peripheral Vascular, Paediatrics, Musculoskeletal, Orthopaedics, Cardiology, Emergency Medicine.

**Speciality Applications:**

Real-time 4D volumetric Imaging, free-hand 3D imaging, Endo-cavity Imaging, Needle Guide

Biopsy.

**Dynamic range:** 64~96dB adjustable; **Frames cine loops:** 256

**Power supply scope:** AC 160-260V 50Hz; **Successive working hours:** ≥8h

**Lateral resolution:** ≤2mm(depth≤80mm), ≤3mm (80< depth≤130mm) or better

**Axial:** ≤1mm(depth≤80mm), ≤2mm (80< depth≤130mm) or better

**Geometry position precision:** lateral≤5%, axial≤5% or better

**Certificate of calibration and inspection from the factory**

Manufacturer's Certificates of ISO 9001, relevant IEC Certificates and European Community certificates for electro-medical equipment safety.

C.		<p>Spare parts must be priced in an overview but will not be part of the procurement. Spare parts must be available at least 8 years after delivery.</p> <p><b>Documentation:</b> User and Service manuals in English A list of important spare parts must be priced in an overview but will not be part of the procurement</p> <p><b>Training:</b> Users on operational techniques and safety and maintenance technicians on PPM</p>
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I	LABORATORY	
1.	Biochemical analyzer, automatic	<p>A laboratory instrument is used for several biochemical testing and applications.</p> <p>Type: automatic; interface in English; Microsoft-based software</p> <p><b>General Characteristics:</b> <b>Method:</b> Random access; <b>Application:</b> Open system, routine chemistry; <b>Speed:</b> 180 tests/hr or more; <b>Number of samples per one run:</b> at least 40 samples; <b>Number of reagents on board:</b> at least 20 reagents; <b>Sample volume :</b> 3 to 100 µl or less; <b>Sample type:</b> Serum; <b>First reagent:</b> 50 to 100µl or more; <b>Test mode:</b> End-point, Kinetics, Fixed time, Immuno-assays, Monochromatic; Bi-chromatic, analysis &amp; Multi-standard, Linearity and Non- linearity calibration, differential, enzyme, fixed time; <b>Test range:</b> Clinical Biochemistry, Turbidimetry, ISE, Protein, Drug abuse; <b>Light source:</b> Halogen lamp 6V/10W, life span&gt;3000 hours; <b>Wavelength:</b> 9 interference filters: 340nm, 405nm, 492nm, 505nm, 546nm, 578nm, 620nm, 670nm; <b>Detector:</b> Photoelectron Diode Array or equivalent/better; <b>Cleaning:</b> Automatic washing for probes and cuvettes, carry over &lt; 0.1%</p> <p><b>Data management:</b> Large capacity for results, reaction curve, be displayed, saved and printed; <b>Report:</b> Edit and print complete reports, format editable. Support Network printing</p> <p><b>Interface:</b> RS-232 Interface</p> <p><b>Power supply:</b> Main unit: 100-240 V; 50Hz; +/-10 %; with appropriate capacity AVR /UPS with 1 hr standby power capacity</p> <p><b>Power connector-</b> European standard Type C</p> <p><b>Guarantee period:</b> 12 months from the date of putting into operation</p> <p><b>Certification requirements:</b> The Manufacturer must have the following international quality control certificates: ISO 9001; <b>The delivered equipment must comply with</b> the Certificate of calibration and inspection from the factory; IEC 601-1-88; European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue; Should be FDA, CUL, or CE approved product; Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450</p>

		<p><b>A list of important spare parts and reagents must be priced in an overview but will not be part of the procurement.</b> Spare parts must be available at least 8 years after delivery.</p>
2.	Haematology Analyzer; 19 parameters	<p>A haematology analyzer with whole blood and pre-dilute capabilities is intended for a lab facility or hospital that requires high throughput and reticulocyte analysis.</p> <p><b>General Features:</b> 5 part differential; minimum 19 parameters, reticulocyte count (RET), 2 histograms + 2 scattergrams; Laser scatter technology, with chemical dye method; Flow cytometry; <b>Counting Modes:</b> 2; whole blood and pre-diluted; <b>Capacity:</b> 60-80 samples per hour (minimum); Blood dispensed with Shear Valve enhanced high accuracy; Independent Channels for Basophil measurement;</p> <p><b>Capable of flagging abnormal cells; Loader:</b> automatic (optional); bar code scanner; <b>Screen:</b> large TFT touch screen 17" minimum; <b>Storage capacity:</b> up to 40,000 samples</p> <p><b>Parameters:</b> WBC, Lym#, Mon#, neu#, Bas#, Eos#, Lym%, Mon%, Neu %, Bas %, Eos %, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, PLT, MPV, PDW, and PCT</p> <p><b>Research parameters include:</b> LIC #, LIC %, ALY#, ALY %</p> <p><b>Histograms:</b> RBC and PLT</p> <p><b>Scatter grams:</b> Basophils scattergrams, 4 differential scattergrams</p> <p><b>Principles:</b> Electrical resistance for counting RBC and PLT and SFT for haemoglobin. Flow cytometry (FCM) + laser light scatter for WBC differential analysis.</p> <p><b>Sample Volume:</b> Capillary 40 µL; <b>Manual mode :</b> (open sampling ) 120 µL; Sample loader/manual mode (close tube) 180 µL</p> <p><b>Throughput:</b> Up to 80 samples per hour</p> <p><b>Display:</b> Large TFT touch screen; 17" minimum; <b>Resolution:</b> 800 x 600 or better</p> <p><b>Menu:</b> Count; review; QC; Setup; Service; Calibration; Logout; Shutdown</p> <p><b>Carryover:</b> WBC, RBC, HGB, PLT &lt; 1.0 %</p> <p><b>Input/Output:</b> USB; LAN</p> <p><b>Printout:</b> External laser printer/inkjet printer, or other printout formats</p> <p><b>Type:</b> semi-automatic photometer; <b>Wavelength range</b> - 340-700 nm;</p>

		<p><b>Photometric level</b> - 0 - 3,0 unit of absorption; <b>Quantity of methods</b> – at least 100 different methods in the memory; Preliminary adjusted internal element Petie; Built-in incubator, regulated range 30-40°C, not less than 2 positions;</p> <p>Built-in pump and flow cell; Program on quality control in English; Presence of system of memory of results of research (not less than 100 patients);</p> <p><b>Light source</b> – halogen lamp with an automatic switch-off system in stand-by mode; Source power of halogen lamp not less than 15W/12V; <b>Wavelength selection:</b> not less than 8-position filter wheel</p> <p><b>Measurement system:</b> measuring glass optical cuvettes 10x10 mm; Optical cuvettes, not less than 10 pc; length of the optical channel, not less than 10 mm; Volume of the flow cell (length of the optical channel - 10 mm) not less than 30 ml; Minimal volume of measurement is 250 ml; Reagent volume per test not more than 1ml; Temperature control, adjustable; LCD screen ( not less than 320 x 240 points); Results are specified on the built-in graphic printer and the screen; Interface RS 232; Open system of reagents.</p> <p><b>Power supply:</b> Main unit: 100-240 V; 50Hz; +/-10 %; with appropriate capacity AVR /UPS with 1 hr standby power capacity; Power connector- European standard Type C.</p> <p><b>Set of accessories, spare parts and consumables in addition to standard set:</b></p> <p>Standard cuvette adapter – 1 pc; Cover ( case) – 1 pc; Glass cuvette – 20 pc (10 x 10 mm); Halogen lamp – 1 pc</p> <p><b>Certification requirements:</b> The Manufacturer must have the following international quality control certificates: ISO 9001; ISO 13485</p> <p><b>Equipment must comply to:</b></p> <p>IEC 6001-1-88 or GOST P 50267.0-92; and CUL; GOST 18996-80; European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue</p> <p><b>Documentation (per unit):</b></p> <p>User's manual; Service manual; both in English</p> <p><b>Guarantee period:</b></p> <p>12 months from the date of putting into operation</p>
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		<p><b>Training:</b></p> <p>Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the supplier expert.</p> <p><b>A list of important spare parts and reagents must be priced in an overview but will not be part of the procurement.</b> Spare parts must be available at least 8 years after delivery.</p> <p><b>Certificate of calibration and inspection from the factory;</b> The Manufacturer must have the following international quality control certificates: ISO 9001;</p> <p><b>The delivered equipment must comply with</b> the Certificate of calibration and inspection from the factory; IEC 601-1-88; European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue; Should be FDA, CUL, or CE approved product; Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450</p>
3.	Semi-automatic Photometer	<p>For measuring the light intensity or optical properties of solutions or surfaces. Photometers are used to measure:</p> <ul style="list-style-type: none"> <li>• Illuminance</li> <li>• Irradiance</li> <li>• Light absorption</li> <li>• Scattering of light</li> <li>• Reflection of light</li> <li>• Fluorescence</li> <li>• Phosphorescence</li> <li>• Luminescence</li> </ul> <p>Designed for immune enzyme analysis on standard plates with measurement control, collection, analysis, transmission and processing of results with the following features:</p> <p><b>Automatic with auto-calibration; open system; an independent device with outer control of PC; embedded microprocessor, with LCD, managed by keyboard;</b></p> <p>96 spot microplates and 8 spot strips with flat or semicircular bottom</p> <p>Optic system - number of channels for photometry not less than 8 channels</p>

		<p><b>Time of measurement, including self-control time:</b></p> <p>On one wavelength - not more than 12 sec.; on two wavelengths - not more than 25 sec.; Wave (spectral) range (discrete or scanning) not less than 405 - 620 nm; Way of wavelength determination - automatic</p> <p>Set should include not less than 4 interferential filters: 405; 450; 492; 620 nm;</p> <p>The resolution, not worse - 0.001 OD; Availability shaking regime; Absorption measuring range: from 0 to 2.500 OD (405 - 620 nm)</p> <p><b>Accuracy:</b></p> <p>+/-1%; +/- .010 OD from 0 to 2.000 at 405 nm; +/-2% +/- .010 OD from 2.000 to 2.500 at 405 nm;</p> <p><b>Linearity:</b></p> <p>+/-1,0% from 0 to 2.000 OD at 405 nm; +/-3,0% from 2.000 to 2.500 OD at 405 nm;</p> <p><b>Repeatability:</b></p> <p>+/-0.5% +/- 0.005 OD from 0 to 2.000 at 405 nm;</p> <p><b>Ways of measurement:</b></p> <p>Optical density; single point calibration; regime of absorption; linear regression; severance point of optical density; Possibility of adjustment to system test of different manufacturers; automatic calibration before measurement of each billet.</p> <p><b>Software for automation of IEA tests:</b></p> <p>Built-in software for guaranteed work with prevalent test systems not less than 30 programs; The System should be - "Open" ; Compatibility with operational system: " Windows" 10 OS at least</p> <p><b>Power supply:</b></p> <p>220 V <math>\pm</math> 10 %, 50 Hz; Power connector- European standard Type C</p>
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		<p><b>Certification requirements</b> (copies of submitted certificates must be validated by the application of the company stamp or seal of the Bidder and that of the Manufacturer if the Bidder is not the Manufacturer):</p> <p>The Manufacturer must have the following an international quality control certificate - ISO 9001; The delivered equipment must comply with: IEC 601-1-88 or GOST P 50267.0-92; and CUL; the European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue</p> <p><b>Documentation (per unit):</b></p> <p>User' s manual and service manual in English</p> <p><b>Training:</b></p> <p>Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier</p> <p><b>Guarantee period:</b></p> <p>12 months from the date of putting into operation</p> <p><b>A list of important spare parts and reagents must be priced in an overview but will not be part of the procurement.</b> Spare parts must be available at least 8 years after delivery.</p>
4.	IFA/ELISA	<p><b>General description:</b> Fully automatic; open system</p> <p><b>Reader:</b> Computer interface fitted with Bi-directional, RS-232 serial communication port, Inter-printer; <b>capable of producing report types:</b> OD value, S/CO value, matrix, limit, concentration and Negative/Positive. <b>The capacity of working area:</b> 2 microplates optional extendable up to 8 microplates. <b>Filter capacity:</b> not less than 8 filters with 4 standard filters: wavelengths; 405nm, 450nm, 492nm, 620nm. <b>Spectrum range:</b> 400nm to 750nm; <b>Storage capacity:</b> minimum of 50 assays results. <b>Wavelength reading:</b> single and dual wavelength; Standard filter protected against fungus; <b>Built-in Printer provided</b></p> <p>Indication range: 0.000 to 3.000 O.D. with 8-channel; Resolution: 0.001O.D.; Accuracy: <math>\pm 1\%</math> and <math>\pm 0.005</math> O.D. at 1 O.D. at 405nm.</p> <p>Stability and drift: Automatic calibration before each plate reading</p>

		<p>Compatible plates to include Polystyrene flat, U-and V-bottomed and PVC flex plates</p> <p><b>Washer:</b> With interchangeable 8-way or 12-way wash heads; Adjustable wash liquid volume: 50 - 1000ul, with 50ul increment; Programmable washing procedures and plate format. Store at least 30 washing procedures and 10 plate formats; Microplate style for U.V. flat bottom; Less than 2 µl maximum residual volume in a flat bottom well.</p> <p><b>LCD panel:</b> 100 mm x 100 mm minimum</p> <p><b>With certificates: IEC compliant; UL; CUL; CE; or equivalent</b></p> <ul style="list-style-type: none"> <li>▪ Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual.</li> <li>▪ Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier</li> </ul> <p>1- year warranty on parts and service after commissioning and acceptance</p> <p><b>Spare parts list and Reagents List:</b> Printer paper 10 rolls or equivalent; Filters of 405nm, 450nm, 492nm and 620nm, 1 each; Spare air filters, 2 pieces; 96 well microplates, 50 pieces; Wash bottle of 2 L, 2 pieces; Rinse bottle of 2 L, 1 piece; a waste bottle of 2 L, 1 piece; 8-way manifold, 1 piece; Needle cleaning tools, 1 set</p> <p><b>Power requirement:</b> 220-240V;50 Hz; +/-10%, with AVR 1000W</p>
5.	Exhaust hoods	<p>Standard Hood face velocity: achieved via minimum 100 fpm laminar air velocity</p> <p><b>Airspeed :</b> 0.35 m/s - 0.45 m/s</p> <p><b>Construction:</b> closed on three (3) sides; front side: 5 mm thick polycarbonate sliding door; Fitted with heavy-duty, dynamically balanced blower</p> <p><b>Work surface:</b> acid-proof ceramic lining with finely polished granite</p> <p><b>Blower:</b> centrifugal, top mounted; the motor is driven; to blow air out through the duct</p> <p><b>Made of mild steel with polyurethane paint coating/FRP finish, including its casing.</b></p> <p><b>Other features:</b> provided with FLP lighting, water sink with inlet and outlet, and an electrical outlet for small electrical work. Inlet nozzles</p>

		<p>for gas/air/vacuum, with cabinet, with lock and keys below the work surface</p> <p><b>Working area dimension:</b> approximately 5' x 3' x 3' . Overall dimension: approximately 1600 x 950 x 2400 mm</p> <p><b>Power requirement :</b> 220-240V;50 Hz; +/-10%</p> <p><b>With certificates</b> IEC, ISO, or equivalent</p> <p>To be installed by the expert of the supplier</p> <ul style="list-style-type: none"> <li>▪ <b>Manuals in English</b> (original copy/ hard copy and electronic copy); Operation Manual and Service Manual.</li> <li>▪ <b>Operational demonstration and basic preventive maintenance orientation</b> for technicians and users to be carried out by the expert of the Supplier</li> </ul> <p><b>1-year warranty on parts and service after commissioning and acceptance</b></p>
6.	Dry heat sterilizer	<p><b>Electric;</b> Power requirement : 220-240V;50 Hz; +/-10%</p> <p><b>Construction:</b> stainless steel; tabletop</p> <p><b>Temperature range:</b> up to 200 °C, digital display, LED</p> <p><b>Time control: thermostat sensor, rotary knob;</b> 0 to 120 minutes. Digital display, LED; with thermometer</p> <p><b>Override switch and twin pilot lights;</b> complete with two perforated trays</p> <p><b>Approximate chamber size:</b> approximately 350h x 400w x 350d mm</p> <p><b>Accessories:</b> Heating element; Gasket</p> <p><b>With certificates</b> IEC compliant; UL, CE-marked or equivalent</p> <p><b>To be installed by the expert of the supplier</b></p> <ul style="list-style-type: none"> <li>▪ <b>Manuals in English</b> (original copy/ hard copy and electronic copy); Operation Manual and Service Manual.</li> <li>▪ <b>Operational demonstration and basic preventive maintenance orientation</b> for technicians and users to be carried out by the expert of the Supplier</li> </ul> <p><b>1-year warranty on parts and service after commissioning and acceptance</b></p>

7.	Blood gas analyser with pH, pO <sub>2</sub> , pCO <sub>2</sub> , Cl-	<p>For measurement of pH, pCO<sub>2</sub>, pO<sub>2</sub> and Barometric pressure and at least 11 calculated parameters of sO<sub>2</sub>, cHCO<sub>3</sub><sup>-</sup>, ctO<sub>2</sub>, AaDpO<sub>2</sub>, AaDpO<sub>2</sub>T, SBE, ABE, SBC, pH (T), pCO<sub>2</sub> (T), cH<sup>+</sup> (T), pO<sub>2</sub>(T), cTCO<sub>2</sub> (P), and other electrolytes like sodium, potassium and chloride;</p> <p>Able to take a capillary sample, the volume should not exceed 200 micro litres for whole blood. Volume for expired gas should not exceed 15ul;</p> <p>Response time from the ready state should be more than 2 minutes. Readout time of sample results is no more than 30 sec;</p> <p>With fully automatic 2-point calibration interval programmable for up to 12 hrs;</p> <p>Automatic 1-point and 2 points calibration and can be manually initiated and interrupted at any time for STAT sample;</p> <p>Throughput of approximately. 30 samples per hour;</p> <p>Heating system to safeguard sample at 37° C at all times during measurement;</p> <p>Shall be computer base with monitor and data entry device. It shall include a suitable program for control of the analyser and storage of test results. Bidder shall indicate data storage method and capacity;</p> <p>Distilled water can be used as a rinse solution;</p> <p>Power failure protection for results and calibration data is at least 20 min;</p> <p>All reagent level and waste level is sensor monitored;</p> <p>Data storage function and quality control system; With printing function;</p> <p>The system offered shall be an <b>Open Reagent System</b> that could accept generic reagents;</p> <p>With maintenance-free electrodes; The electrode longevity is no less than 2 years;</p> <p>Shall accept samples with any anticoagulant added for the sample, including EDTA, heparin and citrate acid; and</p> <p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p>
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		<p><b>Accessories and other requirements :</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included;</p> <p>All standard maintenance tools and cleaning /lubrication materials, where applicable, shall be included;</p> <p>Operation manuals and service manuals, at least 1 set each. in English; manufacturing certificate;</p> <p>Spare parts list and Reagents List; Printer paper 10 rolls or equivalent</p> <p>2 units each of Reagents, control and calibration solutions for all <u>General Blood Gas tests</u>. Or by <u>manufacturer's standard start-up kit</u>, whichever is more favourable</p>
8.	Electrophoresis apparatus (Gel system)	<p>Electrophoresis unit shall be able to measure the following parameters and others: Serum proteins, Lipoproteins, Haemoglobins, Isoenzymes, and Urinary proteins.</p> <p>Shall be computer base with monitor and data entry device. It shall include a suitable program for control of the analyser and storage of test results. Bidder shall indicate data storage method and capacity</p> <p>Shall have report printing device. Should have provision for networking with Laboratory Information System. RS232 or equivalent networking devices</p> <p>The system offered shall be an <b>Open System</b> that could accept generic consumables and disposables</p> <p>LED light source shall be in the wavelength of 550/660 nm.; Scanning shall be automatic</p> <p>CCD: horizontal resolution is 570 lines (800x600 pixels),8-bit, 2 units; It can analyze less than 30pg DNA in agarose; With a professional imaging capture card which assures your image is clear, steady and credible</p> <p>With multi-function software joint to PhotoShop and Excel, which expend the function of the software itself</p> <p>Multi-function software can do Molecular Weight, Quantitative PCR, TLC Analyzes, ELISA analyses, RFLP data analyses,1-D Analyzes, colony counting and so on</p> <p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>Accessories and other requirements:</b></p>

			<p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. All standard maintenance tools and cleaning /lubrication materials shall be included.</p> <p>Operation manuals and service manuals, at least 1 set each, in English. Manufacturing certificate</p> <p>Spare parts list and Reagents List; Printer paper 10 rolls or equivalent</p> <p>Darkroom, with window, 1 unit; High-performance CCD camera, 1 unit; safety lock, 1 unit</p> <p>UV-light tray, 1 unit; white light tray, 1 unit; 1D software, 1 unit; UV light, 6 units</p> <p>White light, 2 units</p>
9.	Centrifuge haematocrit; tubes	24	<p>Maximum speed: Approximately 12000 rpm</p> <p>Capacity: Approximately 24 microtubes</p> <p>Timer range: Approximately 0 - 15 min; Timer setting: 1 min increment</p> <p>Lid interlock and emergency release system; Over speed protection</p> <p>Display for speed</p> <p>Rotors: Capillary and micro tube rotors with approximately 24 positions</p> <p>Model: Table-top; comply with IEC 601.1 standard</p> <p>One set of fixed angle rotors with dust covers</p> <p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>Accessories and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included.</p> <p>All standard maintenance tools and cleaning /lubrication materials shall be included.</p> <p>Operation manuals and service manuals, at least 1 set each., in English.</p> <p>Manufacturing certificate; Spare parts list.; Capillary 1000 pieces</p>
10.	Microtome rotary		<p>Modes of cutting at least 3; Cutting stroke: 65 mm. Section thickness 1 - 30 mm; Trimming thickness 2 - 100 mm.; Retraction: 0 - 65 mm.</p>

		<p>Section counter should be available. Knife angle: from 0° to 20°, adjustable. The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity</p> <p>The product shall meet any internationally recognized and acceptable quality and safety standards.</p> <p><b>Accessories and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included.</p> <p>All standard maintenance tools and cleaning /lubrication materials shall be included.</p> <p>Operation manuals and service manuals, at least 1 set each., in English.</p> <p>Manufacturing certificate; Spare parts list</p> <p>With standard accessories</p>
II	ONCOLOGYINTERNAL MEDICINE, ICU and OT	
1.	Fibrogastroduodenoscope	<p>Composition:</p> <p>Main Unit: Gastrointestinal Fiberscope for child and adult; Colonofiberscope for child and adult</p> <p>Endoscopic Suction Pump: Water Leakage Tester; Water container</p> <p>Electro Surgical Unit with accessories:</p> <p>Camera Control Unit with Camera Head:</p> <p>Endoscopic Video Monitor:</p> <p>Light Source Unit:</p> <p>Auto Voltage Regulator: 190-265 V/230 V; 50 Hz; <math>\pm 5</math> V</p> <p><b>Accessories:</b> For upper gastrointestinal system: 1 pc each; Rotatable Biopsy Forceps; Grasping Forceps, Alligator Jaws; Grasping Forceps, Basket type; Cytology Brush; Washing pipe, Spray; Injection Needle; Snare; Adaptor for Electrosurgical Unit; Patient Plate for Electrosurgical Unit; Patient Plate for Electrosurgical Unit; Adaptor for Fiberscope; 20 inches Monitor Platform; Cabinet for Video Monitor System; For lower gastrointestinal system; 1 pc each; Biopsy Forceps, Alligator Rat Tooth; Grasping Forceps, Alligator Jaws; Grasping Forceps, Basket type; Cytology Brush; Washing pipe, Spray; Injector</p>

		<p>(6 reusable needles &amp; sheath); Diathermic snare (crescent); Rotatable polypectomy snare; Hot biopsy forceps; Adaptor for a fiberscope.</p> <p><b>Gastrointestinal fiberscope:</b></p> <p>Field of view: 120° or more; Direction of view: Forward viewing (0°); Depth of field: 4-60 mm; Outer dimension: 5.2 mm outer diameter or less; Insertion tube: 5.3 mm outer diameter; Bending of the distal end: Up 180°, down 180°, right 160°, left 160° or more; Working length: 925 mm minimum; Total length: less than 1,270 mm minimum; Instrumental channel: 2.0 mm inner diameter</p> <p><b>Colonofiberscope:</b></p> <p>Field of view: 120° or more; Direction of view: 5 to 100 mm or wider; Depth of field : 3-100 mm; Outer dimension: 13.8 mm outer diameter or less; Insertion tube: 13.0 mm outer diameter or less; Bending of the distal end: Up 180°, down 180°, right 160°, left 160° or more; Working length: 1,500 mm or more; Total length: 1,845 mm or more; Instrumental channel: 3.8 mm inner diameter</p> <p><b>Endoscopic suction pump:</b></p> <p><b>Free air flow rate:</b> 5 LPM or more; <b>Suction bottle capacity:</b> 1 L or more</p> <p><b>ESU:</b></p> <p><b>Mode:</b> Monopolar, Bipolar, Normal 50W or more</p> <p><b>Function:</b> Cutting, coagulation (monopolar and bipolar); <b>Output control:</b> Rotary switch/knob;</p> <p><b>Camera control unit with camera head: Television system:</b> NTSC System or equivalent; with Video signal output; V.B.S; Y/C; RGB; and <b>White balance:</b> Auto adjust; capable of Image enhancement; 5 colour modes or more;</p> <p><b>Camera head:</b> CCD solid-state image pickup; 400,000 or more picture elements; 470 lines or more resolution; S/N: 46 dB or better</p> <p><b>Light source unit: Lamp:</b> Xenon or halogen lamp, 150W or better; the built-in cooling system is provided; brightness adjustment is provided;</p>
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		<p><b>Endoscopic video monitor: Colour system:</b> NTSC system or better;  <b>Screen size:</b> 20 inches or bigger; 470 TV lines or more horizontal resolution;</p> <p><b>Power requirement:</b> AC 230V ±10% single phase, 50 Hz</p> <p><b>Auto voltage regulator:</b> Input ±15% Output±3% Response time within 1 sec.</p> <p><b>Documentation (per unit):</b> User’ s manual; Service manual, both in English.</p> <p><b>Guarantee period:</b> 12 months from the date of putting into operation</p> <p><b>Certification requirements:</b> ISO 9001; ISO 13485; IEC 601-1-88 compliant and to European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue or equivalent acceptable standards</p> <p>A list of important spare parts must be priced in an overview but will not be part of the procurement. Spare parts must be available at least 5 years after delivery.</p>
2.	Colposcope	<p>A medical <u>diagnostic</u> procedure examines an illuminated, magnified view of the <u>cervix</u> and the tissues of the <u>vagina</u> and <u>vulva</u>. Many premalignant and <u>malignant</u> lesions in these areas have discernible characteristics that can be detected through examination. A colposcopy provides an enlarged view of these areas, visually distinguishing normal from abnormal tissue and taking directed <u>biopsies</u> for further pathological examination. The main goal of colposcopy is to prevent <u>cervical cancer</u> through early detection and treatment.</p> <p>A specialized colposcope with a camera is used to examine and collect evidence for rape and sexual assault victims.</p> <p><b>General descriptions:</b></p> <p>System configuration/composition: <b>Digital colposcope lens:</b> High-resolution lens, high definition colour digital CCD camera. (&gt;=480, 000 pixels). Lifting bracket by a rocker. Colposcope workstation system. Laptop computer/Desktop computer; Trolley.</p>

	<p>Type: digital; electronics; Observation magnification: approximately. 5 x to 20 x; continuous variable zoom magnification; Vide: Fully integrated; Image processing and management: can be analyzed, processed, saved and printed; simultaneous viewing of video images facilitates group participation among doctors, patients, and staff; Zoom in/out, frozen, acquisition, video playback, automatic focusing save, as well as other image processing. Quick acquisition mode through mouse and keyboard. <b>Filter:</b> green, yellow, red; <b>Light source:</b> halogen filter optical light source; standard projector bulb; Floor stand type counterbalance with approximately 5 casters. 50 mm Ø; <b>Height adjustable range:</b> approximately. 900 ... 1100 mm;</p> <p><b>Camera:</b> high resolution (<math>\geq 480\,000</math> pixels), high definition colour digital CCD; dynamic digital autofocusing. <b>Luminance:</b> more than 1400Lux</p> <p><b>Accessories:</b></p> <ul style="list-style-type: none"> <li>▪ Video Colposcope w/Vertical Stand - Dust Cover</li> <li>▪ RS-232 Interface Cable</li> <li>▪ S-Video Cable</li> <li>▪ 13" Monitor</li> <li>▪ PVM 20" Monitor</li> <li>▪ Replacement lamp assembly (models 88000/89000 only)</li> <li>▪ Standard Video Printer</li> <li>▪ Communication Video Printer</li> <li>▪ Video Printer Remote Control Foot Switch</li> <li>▪ Foot Switch (one function)</li> <li>▪ Print Pack -- 200 Prints</li> <li>▪ S-VHS Recorder</li> </ul> <ul style="list-style-type: none"> <li>• Cervical Model</li> </ul> <p>With certificates IEC compliant; UL 2601-1; CUL; CE; FDA approved or equivalent</p> <p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual.</p> <p>Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier</p> <p>1-year warranty on parts and service after commissioning and acceptance</p>
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		A list of important spare parts must be priced in an overview but will not be part of the procurement. Spare parts must be available at least 8 years after delivery.
3.	Anaesthesia apparatus, halothane draw-over system	<p>Basic anaesthetic unit (draw-over/gas driven system), suitable for use in a condition where oxygen is not always available or reliable with supply. Anaesthesia machine to use in surgical Emergency.</p> <p>General The anaesthesia machine is designed to be used either on a draw-over or a driven gas system. When no fresh gases (O<sup>2</sup>) are available or if the supply is irregular, ambient air can be used as "fresh gas" (draw over).</p> <p><b>Gas delivery system:</b> <i>With oxygen using the gas-driven system, O<sup>2</sup> gas supplied by cylinders goes via the reduction valve, which leads to the rotameter box, the draw-over valve, the vaporiser and the patient breathing circuit. When using O<sup>2</sup>, the draw-over valve lever must be horizontal without oxygen using the draw-over system. When no oxygen is available, the draw-over valve lever is turned vertical, and ambient air from the built-in reservoir is used as the main carrier to evaporate the anaesthetic agent in the vaporiser. During inspiration, the air is sucked from the built-in reservoir, goes through the vaporiser and the mixed gas is led to the patient through the self-expanding bag and Ambu valve. OMV 50 VAPORISER (Oxford miniature vaporiser) is a partially temperature compensated and calibrated vaporiser. The low internal resistance allows ambient air to be used as the gas carrier; it can also be used with continuous gas flow. Aesthetic agent: Halothane;</i></p> <p>Content: 50 ml.</p> <p><b>Rotameter box driving gas:</b> O<sub>2</sub> -N<sub>2</sub>O; Driving gas pressure: - kPa; Rotameter tubes: -01-10 LPM; Low flow regulation: 0.1-2 LPM; Accuracy: +/- (1.9% I.F.+ 0.6% F.S). Note: MP-2 has no salve valve regulator. By-pass valve: approximately. 45L7min at 400Kpa; Reservoir: 750 ml. STAND with 4 wheels; size (H x W x D): 450 x 385 x 245 mm; Weight 10.8 kg</p> <p><b>Expiratory valve:</b> This should be a non-re-breathing valve (AMBU anaesthesia valve or Ruben Valve), dismountable, and autoclavable at 134° . These valves should allow either spontaneous breathing or controlled respiration without adjustment.</p>

		<p><b>Components:</b></p> <p>A) Anaesthesia Machine</p> <ul style="list-style-type: none"> <li>- Side rails</li> <li>- Rotameter box</li> <li>- Draw over a selector</li> <li>- Vaporiser OMV 50</li> <li>- Corrugated tubing</li> <li>- Table with built-in reservoir</li> <li>- Stand on castors; knock down construction</li> </ul> <p>B) Breathing circuit for adults and children</p> <ul style="list-style-type: none"> <li>1 x Resuscitator like AMBU for BABY, with Oxygen reservoir tube</li> <li>1 x Resuscitator like AMBU for Mark III, with Oxygen reservoir bag</li> <li>2 x One-way expiratory valve</li> <li>1 x Mask hook</li> <li>2 x Breathing circuit, Jackson Rees with T-Ayres modified, complete, silicone</li> <li>1 x T-piece: for adding Oxygen</li> <li>6 x Male Connectors for tubing 22 mm</li> <li>6 x Female connector for tubing 22 mm</li> <li>1 x Corrugated tube rubber or silicone 30 cm</li> <li>6 x Corrugated tube rubber or silicone: approximately 105 cm</li> <li>6 x Self-inflating bag, 1 L (rubber or silicone)</li> <li>6 x Self-inflating bag, 2 L (rubber or silicone)</li> </ul> <p><b>A list of important spare parts and consumables must be priced in an overview but will not be part of the procurement.</b> Spare parts must be available at least 8 years after delivery.</p> <p>Packaging: To be supplied in an aluminium transport case</p>
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4.	Electrosurgical Unit (ESU)	<p><b>General description:</b></p> <p>High-frequency generator, offering monopolar and bipolar operations for surgical tissue removal and control of bleeding in surgical procedures</p> <p><b>Specifics:</b></p> <ul style="list-style-type: none"> <li>• Electronic controlled monopolar and bipolar operations;</li> <li>• Soft, forced and spray coagulation techniques must be applicable;</li> <li>• Neutral electrode functional safety control;</li> <li>• Double foot pedals for cutting and coagulation operation, single foot switch with white cable;</li> <li>• Maximum power approximately. 300 W; and</li> <li>• It is mounted on a mobile trolley with an accessory drawer.</li> </ul> <p><b>Safety Features and conformance:</b></p> <p>CF; following IEC 601 part 2.2, the operator can choose three preset modes: simultaneous independent coagulation and low voltage coagulation. This substantially reduces the risk of patient burns at the return electrode site: self-test circuits, audible tones, discreet outputs, and isolated output circuitry. Digital error detection; at the sign of any problem, the machine instantly disables the output and displays the appropriate error code on display. Low-Frequency Leakage of Current: Less than 0.5mA High-Frequency Leakage of Current: Less than 150mA</p> <p><b>Safety Standards:</b> CSA C22.2 NO 601.1-M90, UL 2601-1-UL, IEC 60601-2-2, CENELEC EN 60601-1-2, FCC PART 15 Class A.</p> <p><b>Power requirements:</b> 220-240 V, 50 Hz</p> <p><b>To be supplied with the following accessories/spare parts/ consumables:</b></p> <p>2 x patient plates; 2 electrode handles with 2 buttons (non-disposable) and 3 m cable</p> <p>1 x set of approximately. 10 different electrodes; 2 cables of 3 m for the bipolar coagulation forceps</p> <p>4 x bipolar coagulation forceps, insulated and autoclavable</p> <p>1 x bayonet shaped 17 cm, 1 bayonet shaped 24cm, 1 bipolar angled 11cm, 1 bipolar straight 15cm, 1 pack of 5 blade electrodes, 2 packs</p>
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		<p>of 5 needle electrodes, 1 x blade electrode fine, 1 needle electrode angled medium, 1 ball electrode 5mm, 1x loop electrode6.5mm, finger switch with cable and plug pack of 5 autoclavable, reusable silicone rubber diathermy plate pack of 5 with cable autoclavable.</p> <p><b>The Manufacturer must have the following international quality control certificates:</b></p> <p>ISO 9001; IEC compliant; UL; CUL; CE marked; or equivalent</p> <p>The delivered equipment must comply with: FDA approved or equivalent; to be updated</p> <p><b>Guarantee period:</b></p> <p>12 months from the date of putting into operation</p> <p><b>Documentation (per unit):</b></p> <p>User' s and Service manuals in English</p> <p><b>Training:</b> To be carried out by the expert supplier for medical staff, other users, and maintenance technicians.</p>
5.	Electrosurgical ultra-high frequency unit 300W with endoscopy cutting mode and underwater cutting mode	<p>Nominal HF output: 300 Watts at 400 ohms. At least 2 modes: monopolar cutting and monopolar/bipolar coagulation. Monopolar cutting modes shall have different effects, from pure cutting to blend cutting (with haemostasis). 3 monopolar coagulation modes - soft, forced and spray. Shall have High Cutting mode for underwater cutting operation. Control panel Display should at least include the power and mode used</p> <p>Either foot pedal can activate the bipolar model and auto-coagulate using forceps. The unit should have automatic power regulating feature always to keep minimum current to the patient throughout the procedures. Continuous monitoring of the contact of the grounding pad on the patient is required to eliminate the risk of patient burn. It shall have an Output Leakage controller. The unit shall come with a trolley well designed to fit the generator. Explosion-protected for peak for bipolar and monopolar operation.</p> <p><b>Accessories and other requirements</b></p> <p>Universal adaptor; one piece each of all standard reusable electrodes, snares, and forceps.</p> <p>2 pieces each of all types of handles.</p> <p>Adult patient plates 100 pieces</p> <p>Children's patient plates 50 pieces</p>

		<p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>Safety Features and conformance:</b></p> <p>CF; following IEC 601 part 2.2, the operator can choose three preset modes: simultaneous independent coagulation and low voltage coagulation. This substantially reduces the risk of patient burns at the return electrode site: self-test circuits, audible tones, discreet outputs, and isolated output circuitry. Digital error detection; at the sign of any problem, the machine instantly disables the output and displays the appropriate error code on display. Low-frequency leakage of current: Less than 0.5mA</p> <p>High-Frequency Leakage of Current: Less than 150mA</p> <p><b>Safety Standards:</b> CSA C22.2 NO 601.1-M90, UL 2601-1-UL, IEC 60601-2-2, CENELEC EN 60601-1-2, FCC PART 15 Class A.</p> <p><b>Power requirements:</b> 220-240 V, 50-60 Hz</p> <p><b>To be supplied with the following accessories/spare parts/ consumables:</b></p> <p>2 patient plates; 2 electrode handles with 2 buttons (non-disposable), and 3 m cable</p> <p>1 set of approximately. 10 different electrodes; 2 cables of 3 m for the bipolar coagulation forceps</p> <p>4 bipolar coagulation forceps, insulated and autoclavable</p> <p>1 bayonet shaped 17 cm, 1 bayonet shaped 24cm, 1 bipolar angled 11cm, 1 bipolar straight 15cm, 1 pack of 5 blade electrodes, 2 packs of 5 needle electrodes, 1 blade electrode fine, 1 needle electrode angled medium, 1 ball electrode 5mm, 1 loop electrode 6.5mm, finger switch with cable and plug pack of 5 autoclavable, reusable silicone rubber diathermy plate pack of 5 with cable autoclavable.</p> <p><b>The Manufacturer must have the following international quality control certificates:</b></p> <p>ISO 9001; IEC compliant; UL; CUL; CE marked; or equivalent</p> <p>The delivered equipment must comply with: FDA approved or equivalent; to be updated</p> <p><b>Guarantee period:</b></p>
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		<p>12 months from the date of putting into operation</p> <p><b>Documentation (per unit):</b></p> <p>User' s and Service manuals in English</p> <p><b>Training:</b> To be carried out by the expert supplier for medical staff, other users, and maintenance technicians.</p>
6.	Ventilator; Mechanical	<p>Anaesthesia integral; Automatic for adults and children over 10kgs in weight; Microprocessor controlled; Touch screen LED screen display</p> <p><b>Ventilation mode:</b> Volume control, pressure control, manual</p> <p>Tidal volume: 20-1600ml</p> <p>Pressure control: 10 – 70cm H2O</p> <p>I/E ratio: 1:1 – 1:3</p> <p>Electronic PEEP: 4-30cm H2O</p> <p><b>Alarms:</b></p> <p>Low pressure/HIGH PRESSURE O<sub>2</sub> input, audio-visual (sensitivity: -2/+2 or better)</p> <p>Low respiratory pressure/HIGH PRESSURE (sensitivity -2/+2 or better), audio-visual</p> <p>Power failure; Electronic failure</p> <p>Power supply: 230V, AC, 50Hz</p> <p><b>Accessories:</b></p> <p>Ventilator hose and tube set autoclavable x 3; Breathing circuits complete with corrugated hoses, tubing and connections, autoclavable x 3; Breathing circuits plus Ayres T-piece for infants, autoclavable x 3; Breathing bag/bellows adult 2 litres, re-usable x 3; Breathing bag child reusable x 3; Soda Lime self-indicating type pack of 5 kg</p> <p><b>Standard requirements:</b></p> <p><b>The Manufacturer must have the following international quality control certificates:</b> ISO 9001; IEC compliant; UL; CUL; CE marked; or equivalent</p> <p>Equipment must comply with: FDA approved or equivalent; to be updated</p> <p><b>Guarantee period:</b></p>



		<p>12 months from the date of putting into operation</p> <p><b>Documentation (per unit):</b></p> <p>User' s and Service manuals in English</p> <p><b>Training:</b> To be carried out by the expert supplier for medical staff and other users and maintenance technicians</p>
7.	Anaesthesia apparatus with ventilator	<p>Anaesthesia machine with ventilator mounted on a robust mobile frame</p> <p>A frame of modular construction mounted on antistatic wheels with a central breaker</p> <p>In a frame of SS or PVC powder-coated metal (Al alloy or others), the surface must be stable against treatment with disinfection solutions</p> <p>Gas supply: Oxygen, N2O, Compressed air; Separate gauges for piped-in gases; Safety relief valve; High-pressure hoses for supplying O2, N2O and air, length min. 4m for each; 4 circuits: closed, opened, semi-closed, semi-opened. Re-breathing kit with 4 circuits pressures adjustable valve, absorber, water trap. Holder arm for patient tube; Oxygen failure protection, minimum oxygen percentage control and preferential oxygen flow to protect patient. Low-flow flowmeter with 5 tubes.</p> <p>O2: 0.2 - 15 LPM</p> <p>N2O: 0.2 - 12 LPM</p> <p>Air: 0.2 - 15 LPM</p> <p>O2: 0.01 - 1 LPM</p> <p>N2: 0.02 - 1 LPM</p> <p>Acoustic alarm in case of Oxygen failure and N2O automatic cut off if oxygen flow &lt; 0.35 l. A one-way valve on N2O and AIR tube prevent O2 disturbance in case of N2O/AIR tube damage. Bistable switch for N2O/O2 or AIR/O2 mixture; Frontal manometer for controlling inlet gases.</p> <p>1 x Halothane Vaporizers with safety interlock and key filler</p> <p>1 X Isoflurane Vaporizer with safety interlock and key filler</p> <p>2 x. Patient circuits for adults (complete)</p> <p>1 x Patient circuit for children (complete)</p> <p>Power supply: 220 - 240 V + 10%, 50 Hz</p>

		<p><b>Ventilator</b></p> <p>For providing controlled ventilation of adults, children and neonatal during anaesthesia. Electronically/pneumatically driven; Compact and able to mount on the anaesthetic machine. Ventilation mode: IPPV, AMV, MANUA, SPONT, IMV, PEEP, SIGH</p> <p>Tidal volume: adult 25 - 1300 ml, paediatric 25 - 300 ml</p> <p>Minute volume: 3 - 30 l/min</p> <p>Frequency: 6 - 60 bpm</p> <p>I/E ratio: 1/3 to 4/1</p> <p>Maximum pressure limit: +10 to +70 hPa</p> <p>PEEP: 0 - 20 kPa</p> <p>Sensitivity: -5 to + 15 kPa</p> <p>An LED monitors minute volume, tidal volume, and frequency; the manometer monitors Airway Pressure. Visual and audible alarm if high or low ventilation, Apnoea, high or low pressure, leakage, general failure, electrical failure, head disconnection. Manual alarm mute in 50 - 60s; Automatic alarm reset. Masks for adults and paediatrics. Connecting hoses to the anaesthetic machine. The system shall be designed to operate normally under the conditions of SL. The conditions include power supply, climate, temperature and humidity.</p> <p><b>Accessories and other requirements:</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included</p> <p>All standard maintenance tools and cleaning /lubrication materials shall be included. Operation and service manuals, in English, at least 1 set each. Manufacturing certificate; Spare parts list; Standard Accessories</p>
8.	Continuous suction unit for thoracic chest drainage	<p>Vacuum meter 0 - 1 bar; with Automatic overflow device; Suction controller; Bacterial filter; Grip; Caster trolley, 4 wheels antistatic; Suction tubing silicone,</p> <p>Air flow rate: 40 l/min; Vacuum: -0.9 bar; Water-manometer" 0 - 400mm; Rinsing goblet; Tubing and cable-holder.</p>

		<p>Operation environment: Temperature: +10°C - 40°C; Humidity: 30% to 90%, tropicalised; Atmosphere pressure: 70 kPa to 106 kPa</p> <p>All surfaces and pads must be cleanable with disinfection solutions</p> <p>Mains cable 5 m; 230 V; 50 Hz. The system shall be designed to operate normally under the conditions of SL. The conditions include power supply, climate, temperature and humidity.</p> <p><b>Accessories and other requirements:</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard maintenance tools and cleaning /lubrication materials shall be included. Operation manuals and service manuals, in English at least 1 x set each. Manufacturing certificate; Spare parts list;</p> <p>Standard Accessories</p> <p>Water-manometer 0 - 400mm: 02 sets; Tube and connector: 5 sets;</p> <p>Main suction bottle: 1 pc</p>
9.	Major universal operating table hydraulic	<p>Portable operating table with manual operated functions; Five sections table-top with separate pads of min 50 mm thickness for the head, back, seat and legs. Table-top frame and column casting made of SS 304 with solid base construction, base cover made of CrNi steel. Pads material: resistant against disinfection treatment. Table easy manoeuvrable by four castors, f approximately. 100 mm. Table lockable: central pedal; Height adjustment table tops up/down the pedal-operated hydraulic system. Trendelenburg/reverse Trendelenburg position and back plate adjustment up/down: manual levers or hand crank under head end or back plate, pneumatic springs. Lateral tilt adjustment left/right: hand crank from either side of seat plate. Trendelenburg and lateral tilt: manually controlled by mechanical systems. Hand cranks can be folded down and detached from receptacles at the table frame. Leg plate adjustment up/down via pneumatic spring support. Headrest adjustment up &amp; down. Table-top incl. pads: radio translucent and electrically conductive. Side rails of fixation of accessories, cross-section 25 x 10 mm or other; SS.</p> <p>Dimension of table-top: at least 50 cm x 200cm</p> <p>Table top height can be adjustable in the range: of at least 75 -100 cm</p> <p>Trendelenburg and reverse trendelenburg: approximately. - 30° to + 30°</p> <p>Lateral tilt (right and left): - 20° - + 20° approximately.; Headrest: - 20° - + 20° approximately.; Backrest: - 40° - + 70° approximately.</p>

		<p>Leg plates: - 90° - + 25° approximately.; Leg plates can be abducted and removed</p> <p>All surfaces and pads must be cleanable with disinfection solutions</p> <p>The system shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>ACCESSORIES and other requirements:</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included</p> <p>All standard maintenance tools and cleaning /lubrication materials, where applicable, shall be included</p> <p>Operation manuals and service manuals, in English, at least 1 set each</p> <p>Manufacturing certificate;</p> <p>Spare parts list; Standard Accessories</p> <ul style="list-style-type: none"> <li>• Arm board with swivel joint adjustment: - 2 x units</li> <li>• Body belt 1 x unit</li> <li>• - Wrestle 2 x units</li> </ul>
10.	Major universal operating table hydraulic. With 10 cm elevator at the lumbar section	<p>Same as above;</p> <p>The lumbar section can elevate 10 cm</p> <p>Dimension of table-top: at least 50 cm x 200cm</p> <p>Table-top height can be adjustable in the range: of at least 75 - 100 cm</p> <p>Trendelenburg and reverse trendelenburg: approximately. - 30° to+ 30°</p> <p>Lateral tilt (right and left): - 20° - + 20° approximately.; Headrest: - 20° - + 20° approximately.; Backrest: - 40° - + 70° approximately.</p> <p>Leg plates: - 90° - + 25° approximately.; Leg plates can be abducted and removed</p> <p>All surfaces and pads must be cleanable with disinfection solutions</p>

		<p>The system shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>ACCESSORIES and other requirements:</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included</p> <p>All standard maintenance tools and cleaning /lubrication materials, where applicable, shall be included</p> <p>Operation manuals and service manuals, in English, at least 1 set each</p> <p>Manufacturing certificate;</p> <p>Spare parts list; Standard Accessories</p> <ul style="list-style-type: none"> <li>- Arm board with swivel joint adjustment: - 2 units</li> <li>- Body belt 1 unit</li> <li>- Wristle - 2 units</li> </ul>
III	EYE, EAR, NOSE, THROAT EQUIPMENT	
1.	Tonometer	<p>Measurements:</p> <p>Measuring range: 1 to 60 mmHg / 0.1 to 8.0 kPa or better</p> <p>Measuring step: 1 mm Hg/ 0.1 kph</p> <p>Working Distance: approximately. 11 mm</p> <p>Alignment:</p> <p>Operation range by Joystick: Back and forth approximately. +/-22 mm; Right and left approximately. +/- 43 mm; Up and down approximately. +/- 17 mm</p> <p>Monitor and printer: 5.6 inches LCD colour display; Thermal Type Printer with Auto Cutter</p> <p>Power requirements: 220-240 V; ± 10 %; 50 Hz</p> <p>With certificates ISO compliant or equivalent; conform to relevant CE safety regulation or equivalent</p>

		<ul style="list-style-type: none"> <li>▪ Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual.</li> <li>▪ Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier</li> </ul> <p>1-year warranty on parts and service</p>
2.	Slit Lamp	<p>Parallel; included Angle Type;</p> <p><b>Eye Piece:</b> two-step magnification; 10x, 25x; Adjustable Range of Pupil Distance(mm): 55-82; Adjustable Diopter: <math>\pm 5D</math>;</p> <p><b>Objective:</b> 1x, 1.6x with an overall total magnification: of 10x, 16x and 24x; The slit Image Rotation can be moved from 0 to 180° and tilting illumination Up to 20° ; the device allows the eyepieces to be inclined upwards by 20° from their traditional horizontal position.</p> <p><b>Slit Width(mm):</b> 0-15 adjustable; <b>Slit Height(mm):</b> 0-10 adjustable; <b>Slit Inclination (degrees) :</b> 5, 10, 15, 20; <b>Light Spot Diameter (mm) :</b> 9, 8, 5, 3, 2, 1, 0.2</p> <p><b>Filter Disc:</b> Choice of the following: Grey, Heat absorption, Red Free, Cobalt Filter, Green Filter, Yellow Filter of natural density and open aperture, cobalt blue</p> <p><b>Slit Diaphragm Disc</b> is a wedge-shaped diaphragm of infinitely variable slit lengths</p> <p><b>Lamp:</b> 6 Volt 20 Watts Halogen or equivalent</p> <p><b>Power Supply:</b> AC 230V <math>\pm 10\%</math>; 50Hz; +/- 10%</p> <p><b>Accessories:</b> Replacement mirror; Hruby lens; plastic breath shield; dust cover and fuse; testing rod; replacement lamp: One piece for the illumination unit</p> <p><b>The Manufacturer must have the following international quality control certificates:</b></p>

		<p>-ISO 9001; IEC compliant; IEC 60601-1.Class1 Type B; UL; CUL; CE marked; or equivalent</p> <p><b>Equipment must comply with:</b> FDA approved or equivalent; to be updated</p> <p><b>Guarantee period:</b>12 months from the date of putting into operation</p> <p><b>Documentation (per unit):</b></p> <p>User' s and service manual in English</p> <p><b>Training:</b> To be carried out by the expert supplier for medical staff and other users, including maintenance technicians</p>
3.	Refractometer	<p><b>Composition:</b> Refractometer; Thermometer; Test tube; Calibration Block; Oil; Calibration Screwdriver</p> <p><b>Measuring Range:</b> 1.3000 to 1.7000 nD (refraction index); 0 to 95% Brix</p> <p><b>Accuracy:</b> +/- 0.0002 nD, +/-0.25%</p> <p><b>Resolution:</b> 0.0002 nD, 0.25%</p> <p><b>Application</b> Almost all applications</p> <p>Temperature Compensation: With an external thermometer between 0 to +70<sup>o</sup>.</p> <p><b>With certificates:</b> IEC, UL, CUL, CE compliant or equivalent</p> <p><b>Manuals in English</b> (original copy/ hard copy and electronic copy); Operation Manual and Service Manual.</p> <p><b>Operational demonstration and basic preventive maintenance orientation</b> for technicians and users to be carried out by the supplier expert.</p> <p><b>1-year warranty on parts and service after commissioning and acceptance</b></p>
4.	Set of the ophthalmic lens	<p><b>Gonio :</b></p> <p>Mirror: For the examination of the anatomical conditions in front of the iris; 2 x</p> <p>Mirror small: standard lens, offering the traditional 59- degree, 66-degree and 73- degree angles, but is smaller in diameter, 3 x</p> <p>Mirror large: traditional 59-degree, 66-degree and 73-degree Angles, 3 x</p>

		<p>Mirror straight/angle handle: small 8.4mm radius contact surfaces ideal for static and dynamic gonioscopy while eliminating the need for viscous interface solutions such as methylcellulose.</p> <p><b>Slit lamp, non-contact:</b> for detailed disc and macular viewing, 31 mm diameter facilitates easy handling within the orbital area; small 26mm diameter ring design for funduscopy, good small pupil capabilities, ideal for a quick look at the posterior pole; 1.0x Imaging Lens for the visible spectrum and to reduce glare and reflections during general diagnosis and slit lamp imaging, provides a high-resolution view of the posterior pole and a sharper image across the diameter of the lens</p> <p><b>Contact lens:</b> The fundus lens is for the binocular slit observation of the pupil, the macula and its surroundings to 30° , and the central vitreous body sections; the Ocular Mainster OMRA-HM lens is for very high magnification for detecting and treating macular problems.</p> <p><b>Lens surgical:</b> Ocular Thorp; Landers wide field, Landers equatorial II; Woldoff high magnifications Lens surgical: Ocular Thorp; Landers wide field, Landers equatorial II; Woldoff high magnifications</p>
5.	Audiometer	<p>Shall be a portable and table-top model; Shall be fast and accurate; Shall have dual channel control and display. The system shall have an eminent keyboard designed for the operator's convenience. The system shall be able to perform all diagnostic tests such as pure tone, speech masking and pulse.</p> <p>The system shall be able to perform air conduction, bone, and field tests in every diagnostic testing mode. The unit shall be versatile in conducting various tests with multiple test frequencies. System shall have the least harmonic distortion (approximately. &lt;2% ~ &lt; 5%). The system shall be with self-calibration for the headset and bone vibrator. The system shall have effective communication and monitoring facilities between the tester and the patients.</p> <p>The system shall be able to perform special tests such as SISI, DLI, ABLB and Carhartt deacy. It shall have a large graphical LCD screen capable of displaying the test results of both channels simultaneously. It should be able to display all test results on the screen. Unit shall be able to display and print-out the all measurements, date and time, appear on all printouts fast virtually silent built-in printer.</p> <p>Unit shall comply with IEC 601, IEC 1027, and UL 2601 standards</p> <p>Unit shall be provided with RS 232 serial interface capabilities</p>



		<p>The system shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>ACCESSORIES:</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard maintenance tools and cleaning /lubrication materials shall be included. Operation manuals and service manuals, at least 1 set each, in English. Manufacturing certificate;</p> <p>Spare parts list;</p> <p>1 x set of headphones for audiometry</p> <p>1 x set of headphones for bone vibrator; 1 set of active speakers with a minimum of 2 x metre cable length shall be provided</p>
6.	Middle ear analyser	<p>It shall be a portable and table-top model.</p> <p>It shall have a large graphical LCD screen capable of displaying the test results simultaneously. It should be able to display all test results on the screen.</p> <p>Unit shall be able to display and print out all measurements, date, time, and the clinic's name and address on all printouts fast, virtually silent built-in printer. Shall be fast, automatic or manual in performing the clinical tympanometry. Unit shall be able to measure fast impedance and ipsilateral reflex. Shall have a probe with the frequency intensity of at least 226Hz(85dB) as standard. The probe shall be provided with LED to indicate the test status. Shall be capable of measuring the pressure in the range of between +200 and -400 Pa approximately. Unit shall have a volume range of at least 0.1ml to 5.0ml.</p> <p><b>Eustachian tube analyser</b></p> <p>The system shall be able to perform Eustachian tube analysis. The system shall have all eustachian testing modes.</p> <p><b>Reflex measurement</b></p> <p>The system shall provide contralateral and reflex measurement tests. The unit shall be capable of multiple stimuli and intensities to determine the threshold level for the acoustic reflex.</p> <p>Unit shall comply with IEC 601, IEC 1027, and UL 2601 standards.</p>

		<p>Unit shall be provided with RS 232 serial interface capabilities</p> <p>The system shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>ACCESSORIES and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included.</p> <p>All standard maintenance tools and cleaning /lubrication materials shall be included.</p> <p>Operation manuals and service manuals, at least 1 set each, in English</p> <p>Manufacturing certificate</p> <p>Spare parts list</p> <p>1 x set headphones for tympanometry</p> <p>1 x Ear tip set (20 pcs) &amp; calibration cavity</p>
7.	Sight testing unit with eye testing chart and trial lens set	<p>Set of two dual-purpose wall hanging distance panels, 3 and 6 meters</p> <p>1 "Illiterate E" in a frame; 1 Bremerton in a frame</p> <p>The electrical installation with cold light, switch-on device and plug. The structure is made of steel. Smelled, alphabetic and astigmatism test.</p> <p>Series of letters with 10<sup>0</sup> of sharpness, from 0.1 to 1.5. Smelled (trident) series with 10<sup>0</sup> of sharpness 0.1 to 2.</p> <p><u><a href="#">Duochrome test:</a></u></p> <p>A case of Standard Trial lens set 35 pairs</p> <p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>ACCESSORIES and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included</p> <p>All standard maintenance tools and cleaning /lubrication materials shall be included.</p>

		<p>In English, operation and service manuals have at least 1 set each.</p> <p>Manufacturing certificate</p> <p>Spare parts list;</p> <p>Standard accessories</p>
8.	Cataract & Glaucoma surgical instrument set 1	<p>Barraquer, wire, speculum 2 x</p> <p>Barraquer, Colibri forceps (0.12 mm teeth, w/tying platform) 1 x</p> <p>Kelman-McPherson tying forceps 8mm 2 x</p> <p>Utrata, capsulorhexis forceps (rounded handle) 1 x</p> <p>Barraque needle holder, curved W/O lock, standard jaw 1 x</p> <p>Westcott, tenotomy, scissors,(blunt tips) 1 x</p> <p>Vana's capsulotomy scissors straight 1 x</p> <p>Simcoe irrigation/aspiration cannula(0.3mmport) 1 x</p> <p>Calliper 1 x</p> <p>Superior, rectus, forceps 1 x</p> <p>Sinsky, Illens hook, 18mm tip, straight 1 x</p> <p>Blade breaker and holder 1 x</p> <p>Muscle hook 2 x</p> <p>Iris spatula 1 x</p> <p>Sterilizing box with silicon mat 1 x</p> <p>Conjunctival forceps 1 x</p> <p><b>ACCESSORIES and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included</p> <p>All standard maintenance tools and cleaning /lubrication materials shall be included.</p> <p>Operation manuals and service manuals: in English, at least 1 set each.</p> <p>Manufacturing certificate</p>

		<p>Spare parts list; Standard accessories</p> <p>Consumables such as filters, identification labels, and seals shall be supplied in at least 100 pieces each.</p>
9.	Cataract & Glaucoma surgical instrument set 2	<p>Barraquer wire speculum 1 x</p> <p>Barraquer Colibri forceps (0.12 mm teeth, w/tying platform) 1 x</p> <p>Kelman - Mc Pherson tying forceps 8 mm 1 x</p> <p>Utrata capsulorhexis forceps (rounded handle) 1 x</p> <p>Barraque needle holder, curved W/O lock, standard jaw 1 x</p> <p>Castroviejo corneal scissors, large curved blade, blunt tips 1 x</p> <p>Westcott tenotomy scissors (blunt tips) 1 x</p> <p>Vana's capsulotomy scissors straight 1 x</p> <p>Simcoe irrigation/aspiration cannula (0.3 mm port) 1 x</p> <p>Calliper 1 x</p> <p>Superior rectus forceps 1 x</p> <p>Sinsky II lens hook 18 mm tip straight 1 x</p> <p>Blade breaker and holder 1 x</p> <p>Muscle hook 1 x</p> <p>Spatula 1 x</p> <p>Sterilizing box with silicon mat 1 x</p> <p>Conjunctival forceps 1 x</p> <p><b>ACCESSORIES and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard maintenance tools and cleaning /lubrication materials shall be included. Operation manuals and service manuals: in English, at least 1 set each. Manufacturing certificates</p> <p>Spare parts list; Standard accessories; Consumables such as filters, identification labels, and seals shall be supplied in at least 100 pieces each.</p>
10.	Operating microscope for ENT on mobile stand	<p>The Microscope shall provide maximum working convenience for ENT operating procedures with variable motorised zooming. Shall be mounted on the counterbalanced floor stand, which shall meet</p>

		<p>mobility and positioning precision. Casters shall be provided for easy and single-handed effortless movement with electromagnetic brakes. The microscope shall be provided with a variable working distance of approximately 200mm to 400 mm., with focusing motorised or manual. It should be able to perform a fine focusing adjustment. It is provided with a dedicated, bright &amp; homogeneous illumination system with variable light intensity and diameter, shadow-free main illumination through fibre optic and emergency lamp. It shall have convenient viewing for both the main and assistant surgeons. The system offered shall be designed to operate normally under the country's conditions.</p> <p><b>ACCESSORIES and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included</p> <p>All standard maintenance tools and cleaning /lubrication materials shall be included.</p> <p>Operation and service manuals, in English, at least 1 set each.</p> <p>Manufacturing certificate. Spare parts list; Standard accessories. Standard maintenance accessories, for example, cleaning brushes, rubber seal, cleaning cap, cleaning adapter silicone oil EO gas sterilization venting cap or equivalent means of sterilization, shall be included</p>
11.	Operating microscope for Ophthalmology on mobile stand	<p>The microscope shall provide maximum working convenience for ophthalmic surgical procedures with motorised zooming. 6:1.</p> <p>The microscope shall be mounted on the counterbalanced floor stand, meeting mobility and positioning precision.</p> <p>Casters shall be provided for easy and single-handed effortless movement with electromagnetic brakes.</p> <p>The microscope shall have a variable working distance of approximately 175mm to 225 mm. Focusing shall be motorised or manual. Should be able to perform fine, focusing adjustment. Eyepieces with different magnification shall be provided for the respective procedures. Shall be provided with a dedicated, bright, homogeneous cold light illumination system with variable light intensity and diameter. Illumination shall be designed to protect the patient's eye from excessive radiation. Should be provided with shadow-free main illumination through fibre optic and emergency lamp. Unique illuminator module for intensifying red contrast. It shall have convenient</p>

		<p>viewing for both the main and assistant surgeons. The system shall be designed to operate normally under the country's conditions.</p> <p><b>Accessories and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included</p> <p>All standard maintenance tools and cleaning /lubrication materials shall be included.</p> <p>Operation and service manuals: at least 1 set each, in English.</p> <p>Manufacturing certificates; Spare parts list; Standard accessories; Standard maintenance accessories, for example, cleaning brushes, rubber seal, cleaning cap, cleaning adapter silicone oil EO gas sterilization venting cap or equivalent means of sterilization, shall be included</p>
IV.	CASUALTY/ER/ICU	
1.	Monitors patient vital functions	<p>Multiple patient modes to care for adults, paediatrics, and even neonates; NBP: non-invasive blood pressure technology; <b>SpO<sub>2</sub></b>: motion tolerant pulse oximetry</p> <p>Display Parameters: Waveforms / Alphanumeric; ECG; Respiratory Rate (RR); ECG Dual</p> <p>Sweep Speed: 12.5 mm/sec; Sensitivity: 0.5, 1, and 2; Screen size : approximately. 5.5 inch</p> <p>Safety features: Hi &amp; Low Indicators for RR &amp; Heart Rate; Arrhythmia Detection</p> <p>Optional display parameters non-invasive: Capnograph; Transcutaneous; (O<sub>2</sub> &amp; CO<sub>2</sub> monitor)</p> <p><b>Temperature:</b> Electronic predictive thermometry</p> <p>Multiple blood pressure modes and a variety of BP cuffs; Custom roll stand; full array of programmable alarms.</p> <p>The Manufacturer must have the following international quality control certificates: ISO 9001; The equipment must comply with IEC 601-1-88 and the European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue.</p>

		<p>Guarantee: 24 months from the date of putting into operation</p> <p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the supplier expert.</p>
2.	Germicidal Lamp	<p>Constructions: Uses Low-pressure lamp; wall-mounted fixed or floor-standing mobile on anti-static castor wheels, 50 mm Ø</p> <p>Lamp: capable of producing not less than 254 nm wavelength</p> <p>Wattage: 1.3-2.0 Kw</p> <p>Power requirements mains: 220-240 V; 50 Hz; +/- 10%</p> <p>Supplied with spare lamps: 12 pcs</p> <p>With ISO certificates from the manufacturer or equivalent</p>
3.	Spirometer	<p>Measured parameters;</p> <p>FVC, IVC, VC, MVV, VT, FEV1, Best FVC, Best FEV1</p> <p>Vmax25, Vmax50, Vmax75, tl, te, FET100%, VE, Rf, tl/t. tot, VT/tl, PD20</p> <p>PEF, PIF, FEV1/FVC%, FEF25-75, FEV1/VC%, ERV</p> <p>Max test duration: less than 30 sec.; Max flow rate: +/- 16L/s; Recording speed: &lt;20mm/sec</p> <p>Timing accuracy: +/- 1%; Max activation volume: 0.04L</p> <p>Leakage rate: less than 300g load</p> <p>Volume accumulation: 12 sec; Volume measurement: direct</p> <p>Detachable transducer. Easy to clean and disinfect.</p> <p>Display: LCD, Record: printer.</p> <p>Power supply: 220V/ 50 Hz</p> <p>Working environmental:</p> <ul style="list-style-type: none"> <li>• -Temperature: + 10o to + 40° C</li> <li>• -Humidity: 30% to 90%, tropicalized.</li> <li>• -Atmosphere pressure: 70 kPa to 106 kPa</li> </ul> <p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p>The Manufacturer must have the following international quality control certificates: ISO 9001; The equipment must comply with; IEC 601-1-</p>

		<p>88 and the European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue.</p> <p><b>Guarantee:</b> 24 months from the date of putting into operation</p> <p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the supplier expert. Spare parts List: Mouthpieces (2 boxes), Charts, Calibration syringe, Viral filters, Nose clips. PC port adapter/cable</p>
4.	CTG Machine (Monitor cardiotocograph antepartum on a trolley)	<p><b>Monitor</b></p> <p>Low ultrasonic frequency of approximately 2.0 to 2.5 MHz. With a numerical display for heart rates and uterine activity. Audible alert indicator for foetal bradycardia and tachycardia. Signal quality indicator for heart rate and variable volume control. Baseline adjustment for uterine activity display.</p> <p>Remote Clinical Event Marker. Ability to interface to the Obstetrics Information System for networking. The system shall comply with IEC 601 safety standards.</p> <p><b>Recorder</b></p> <p>High resolution, multi-channel thermal printer. Paper speed: 1,2 or 3cm/min. Paper end detection with visible and audible indication</p> <p><b>Transducers</b></p> <p>External Ultrasound transducer x 1 (Range: 50 to 240 bpm)</p> <p>External Toco transducer x 1 (Range: 0 to 100 relative units)</p> <p><b>Trolley</b></p> <p>Mobile with at least 2 lockable castors. Comes with 1 drawer for storage. Thermal paper for recorder x 2 packs; Ultrasound Gel x 1</p> <p>Transducer Belts x 2; Transducer Knobs adapter x 2</p>



		<p><b>The Manufacturer must have the following international quality control certificates:</b> ISO 9001; <b>The equipment must be compliant with:</b> IEC 601-1-88 and the European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue.</p> <p><b>Guarantee:</b> 24 months from the date of putting into operation</p> <p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier; Spare parts List</p>
5.	EEG 22 channels	<p>EEG system, 22 traces, 19 leads digital EEG; Pentium-IV processor or better. 256 MB RAM; 17-inch Display; CD-RW; Windows 2000 operating system/or equivalent; Colour printer; Flash Stimulator: Frequency: 1-60ml; Power: 0.125-1 J. Trolley</p> <p>Isolation transformer; Amplifier System; 22 channels amplifier</p> <ol style="list-style-type: none"> <li>a. Input: unipolar and bipolar</li> <li>b. sampling Rates 512HZ, 1024HZ, 2048HZ</li> <li>c. Low-frequency filter 0.016-5HZ, high-frequency filter 15-120 HZ</li> </ol> <p>EEG Lead control panel</p> <p>Software: 24 channels Acquisition Software; Mapping Software</p> <p>Supplied with Electrode cable; Head cap sets (for adult and child)</p> <p>The Manufacturer must have the following international quality control certificates: ISO 9001; The equipment must comply with IEC 601-1-88 and the European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue.</p> <p><b>Guarantee:</b> 24 months from the date of putting into operation</p> <p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier; Spare parts List</p>
6.	ETCO2 module side stream	<p>It shall be compatible and used with all bedside monitors. Shall measure both mainstream and side stream. Displayed parameters: etCO2, iCO2 &amp; respiration rate.</p>

		<p>Full accessories for side stream: one set each; different sizes for neonates, children and adults. In the case of disposable accessories, 20 sets each for neonates, children and adults shall be included.</p> <p><b>The Manufacturer must have the following international quality control certificates:</b> ISO 9001;</p> <p><b>The equipment must comply with:</b> IEC 601-1-88 and the European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue.</p> <p><b>Guarantee:</b> 24 months from the date of putting into operation</p> <p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier; Spare parts List</p>
7.	ETCO2 module mainstream and sidestream	<p>It shall be compatible and used with all bedside monitors. Shall measure both mainstream and side stream. Displayed parameters: etCO2, iCO2 &amp; respiration rate</p> <p>Full accessories for the mainstream: one set each; different sizes for neonates, children and adults. In the case of disposable accessories, 20 sets each for neonates, children and adults shall be included.</p> <p><b>The Manufacturer must have the following international quality control certificates:</b> ISO 9001;</p> <p><b>The equipment must have:</b> IEC 601-1-88 and the European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue.</p> <p><b>Guarantee:</b> 24 months from the date of putting into operation</p> <p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier; Spare parts List</p>
V	A&E AND HIGH DEPENDENCY UNIT	
1.	Oxygen Concentrator	<p><b>Capacity:</b> up to 15 LPM with OSD (oxygen sensing device); double-flow with LED Counting System</p> <p><b>Components:</b></p>

		<ul style="list-style-type: none"> <li>• Casing with vertical layout + handle + 4 wheels. Overall dimensions :70.5 x 40.6 x 35.6 cm</li> <li>• Angled control panel</li> <li>• 3 types of filters with easy access:       <ul style="list-style-type: none"> <li>1 - Dust foam pre-filter (rectangular): large particles (rectangular)</li> <li>2 - felt filter (round): for fine particles</li> <li>3 - Bacterial filter: to capture particles up to 0.5 <math>\mu</math> .</li> </ul> </li> <li>• Adjustable flow meter</li> <li>• Autoclavable humidifier</li> <li>• Tubing for oxygen supply (10 m)</li> <li>• 2 Y-pieces for tubing; for dividing supply to up to 2 more patients</li> <li>• 2 pieces of oxygen supply splitter</li> </ul> <p><b>Power requirement:</b> 220-240 Vac; <math>\pm</math> 10 %; 50 Hz; with a <b>high and low voltage alarm system</b></p> <p><b>Oxygen delivery:</b></p> <ul style="list-style-type: none"> <li>• <b>O2 delivery rate:</b> 15 litres per minute (LPM);</li> <li>• <b>Maximum recommended flow:</b> 15 LPM</li> <li>• <b>Outlet pressure:</b> 8.5 PSIG (58.6 kPa) or 0.04~0.05MPa; with overrunning pressure alarm</li> <li>• <b>Oxygen % percentage:</b> 1-5 LPM = 93% <math>\pm</math> 3%</li> <li>• <b>Operating altitude:</b> 0-1500 m no degradation in performance; 1500-3000m = <math>\pm</math> 4% performance drop at 5 LPM; 3000-4000m = not recommended</li> <li>• <b>Operating environment range:</b> 10<math>^{\circ}</math> to 35<math>^{\circ}</math> C with a humidity range of 30<math>^{\circ}</math> of &gt; 35<math>^{\circ}</math> C - 4% oxygen performance drop at 8 LPM</li> <li>• <b>OSD alarm system by continuous monitoring of O<sub>2</sub> concentration by ultrasound:</b> audible alarm will be activated at 75 % O<sub>2</sub> <ul style="list-style-type: none"> <li>○ Green light = &gt; O2 concentration = 85%</li> <li>○ Yellow light = &gt; O2 concentration below 75%</li> </ul> </li> </ul>
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2.	Pulse Oximeter	<p>Pulse oximeter for continuous use in adults, children and neonates; Like/similar/equivalent in quality: Nellcor Oxymax NPB40; Portable; Audible pulse rate; Can functions on batteries type C; LR14, 1.5V; Capable in all combinations humidity/temperature, without condensation and at an altitude: 0-6000 m</p> <p><b>Components:</b></p> <p>Battery charger + cable; Cable, Patient; Sensor: adult, child, neonatal; Protecting case</p> <p><b>Packaging:</b></p> <ul style="list-style-type: none"> <li>• Unit presentation: 1 pulse oximeter with complete accessories:</li> <li>• 2 x Finger probes, adult, reusable.</li> <li>• 1 x Finger probe, child, reusable</li> </ul>

		<ul style="list-style-type: none"> <li>• 50 x Adhesive tapes for neonates</li> <li>• 1 x Patient cable</li> <li>• 1 x Battery charger, complete</li> <li>• 1 x Protecting case, water resistant</li> <li>• 1 x Explanatory CD ROM</li> <li>• 4 x Batteries, LR14, rechargeable</li> <li>• Unit presentation: in a well-packed protected carton box, including user and maintenance manual in English + warranty.</li> <li>• The following information must appear on the packaging:</li> <li>• Designation of the item, manufacturer Ref Nr + CE with Nr; Name and address of the supplier (manufacturer)</li> </ul> <p><b>With certificates</b> ISO compliant or equivalent; conform to relevant CE safety regulation or equivalent</p>
3.	Nebulizer, Ultrasonic	<p>With movable stand and adjustable tray; support for bottle and automatic continuous feeding system for 1 to the 5-litre bottle; Timer for continuous operation or up to 59 min. Working time; Adjustable air delivery volume; Exchangeable air- and bacterial filter. Sterilizable fan-wheel; Nebulizing chamber and lid to be sterilizable in steam; Safety interrupters to prevent the nebulizer from operating without liquid; Tubing sterilizable (silicone).</p> <p>Performance:</p> <p>Nebulizing rate: 0 - 120 ml/hr; Particle size: 0.5-15 <math>\mu</math> m; Mist density: 0 - 200 mg/l</p> <p>Air flow: adjustable 0 - 10 l/min</p> <p>Stand: On castors; knock down construction; tray for nebulizer and support arm for tubing; flask holder; stand, base, and supports in stainless steel</p> <p>To be supplied with: 10 masks for children; 10 masks for adults; 10 bacterial filter elements</p> <p>Power requirement: 220-240 Vac; <math>\pm</math> 10 %; 50 Hz</p> <p>With certificates: ISO compliant or equivalent; conform to relevant CE safety regulation or equivalent</p>

		<p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual.</p> <p>Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the supplier's expert.</p> <p>1-year warranty on parts and service</p>
4.	Infant Incubator	<p>Control Panel: Digital / Electro-mechanical (Touch key Pad); Display Parameters ( Digital, Seven Segment Display) for Humidity and Temperature ( fixed and variable)</p> <p>Alarms: Visual (LED) and Audio (Buzzer) Sensor alarms for HI and LOW Air Temperature; HI and LOW Skin Temperature; Temperature Failure Indicator; Over-Heat temperature Automatic shut off; Airflow (Fan failure) and power failure</p> <p>Temperature control: Baby Skin, Air control, &amp; Humidity</p> <p>Air range (increments): 20° C - 39° (+/- 0.1 ° C)</p> <p>Skin, range (increments): 34° C - 39° (+/- 0.1 ° C)</p> <p>Hood Components: Transparent Polyvinyl, with at least 6 hand ports and 2 tube ports, Double-walled, Hood accessible for Weighing baby &amp; oxygen tubing for oxygen supply</p> <p>Cabinet Components: Two Drawers, Casters and brake</p> <p>Power Supply: 220-240V, 50Hz</p> <p>Standard Accessory: Spare Probes for Air and Skin Temperature sensors. Extra supply of Dust Filters; AVR, 220 Vac, 1000VA, 60 Hz, servo motor type.; I.V. port with I.V. pole</p> <p>Manuals in English (original copy and electronic copy),</p> <p>Operation Manual and Service Manual, in English. Operational demonstration and preventive maintenance orientation for technicians and users</p> <p>1-year warranty on parts and service after commissioning and acceptance</p>

		IEC compliant or it's equivalent international Standards (ISO). Unit Plate must indicate: Model no. Brand, Serial no. Manufacturer
5.	Foetus Doppler	<p>Obstetric probe with an ultrasonic frequency of approximately 2.5 MHz. Integrated speaker with output connectivity to a stereo headset/headphone or recording device.</p> <p>Variable volume control. Digital heart rate display with a visual LED indicator. Automatic shutdown to conserve battery with low battery warning indicator. Non-rechargeable or rechargeable battery operated.</p> <p>Lightweight and portable unit. Noise reduction feature/facility to reduce background noise and artefacts. Shall comply with IEC601 safety standards. The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>Accessories and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard Maintenance tools and cleaning /lubrication materials shall be included. Operation manuals and service manuals, at least 1 set each, in English. Manufacturing certificate</p> <p>Spare parts list; Carrying case x 1; Ultrasound gel x 1; Alkaline batteries x 1 sets</p>
6.	Phototherapy lamp for premature jaundice	<p>Phototherapy unit for the treatment of jaundice baby with high blood bilirubin. The unit consists of fluorescent tubes of blue light wavelength mounted in a canopy.</p> <p>Phototherapy lamp with quartz-halogen bulb 150 watts. At bed level: beam spot size 3"-2". Phototherapy light output greater than 15m W/cm<sup>2</sup> at the mattress level. A dual timing system keeps track of patient exposure time and bulb life. Freestanding unit on wheelbase - 2 fixed and 2 swivel castors. The height adjustment facility and unit shall be able to fits snugly over the incubator. Blue light tube: 8 x 15 watts; daylight tube: 2 x 15 watts.</p> <p>Power supply: 220V ± 10%, 50Hz</p> <p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature, and humidity.</p> <p><b>Accessories and other requirements</b></p>

		<p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard maintenance tools and cleaning /lubrication materials shall be included. At least one set each, operation and service manuals, at least 1 set each in English. Manufacturing certificates; Spare parts list.</p>
7.	Oxygen flowmeter with humidity bottle for cylinder	<p>Flow meter: adjustable 0 - 15 l/m</p> <p>Regulator: 4 bar off-set</p> <p>Humidity bottle: 0.3 - 0.5 L</p> <p>Oxygen mask with tubing.</p> <p>This regulator is designed for a maximum working pressure of 22,000 psi, 150 kg/ cm<sup>2</sup> / 150 bar (14,700 Kpa); therefore, this shall not be used for any higher pressure (than 150 kg/ cm<sup>2</sup> or 14,700 Kpa).; output 4 bar (g)</p> <p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>Accessories and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard maintenance tools and cleaning /lubrication materials shall be included. Operation manuals and service manuals, at least 1 set each, in English. Manufacturing certificates; Spare parts list</p>
8.	Infusion pump	<p>Infusion driver, variable speed for continuous infusion</p> <p>Suitable forward or intensive care use.; Flow rate 10 to 1000 ml/hour.</p> <p>Use: 100, 200, or 500 ml IV infusion bottle</p> <p>Power supply: 220V/50Hz operation with rechargeable battery backup. External extra-low voltage: 12 V. Battery operating time: at least 24 h</p> <p>Accumulator Pack: CD-free, rechargeable; Occlusion alarm pressure limits: min. 3 levels are selectable (max. 1.2 bar)</p> <p>Automatic reduction of bolus volume; Alarm/pump stop: dosage discrepancy of 0.01 ml. Pre-alarm: empty accumulator or empty.</p> <p><b>Operation environment</b></p> <p>Temperature: +10°C ... 40°C</p>



		<p>Humidity: 30% to 90%, tropicalised</p> <p>Atmosphere pressure: 70 KPa to 106 KPa</p> <p>All surfaces and pads must be cleanable with disinfection solutions</p> <p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p>Accessories and other requirements</p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard maintenance tools and cleaning /lubrication materials shall be included. Operation manuals and service manuals, at least 1 set each, in English. Manufacturing certificates; Spare parts list: 100 sets of disposable infusion</p>
VI	UTILITIES (Waste Management Equipment, Laundry, Electric Generator)	
1.	Incinerator	<p>Capacity: capable of burning 10-50 kg /h of hospital solid wastes; capable of reducing solid waste to approximately 2-3 % by volume and 5% by weight</p> <p>Number of burners: Minimum 2 or multi-stage; Fuel: Diesel oil or coal oil or equivalent fossil fuel</p> <p>Installation: suitable within city limits; requiring small area; approximately. Dimension: 6 m chimney, 225 H x 6 m<sup>3</sup> V x 1700 kg W; noiseless, odourless; to be done by an expert of suppliers.</p> <p>Safety features: auto-power off; auto thermal cut-off Control: LCD, showing real-time status</p> <p>Insulation: Ceramics or equivalent</p> <p>Smoke and ash and other pollutants: can detoxify most possible pollutants from waste, detoxify to meet national standard regulations and requirements; can easily manage dioxin, SO<sub>2</sub>, NO<sub>x</sub> emissions, and other heavy metals</p> <p>Combustion temperature: not lower than 800<sup>o</sup> C</p> <p>The Manufacturer must have the following international quality control certificates: ISO 9001. The equipment must comply with IEC 601-1-</p>

		<p>88; European Community requirements as per Directive 93/42/EEC dated 14.06.1993 on the medical equipment issue.</p> <p><b>Guarantee:</b> 24 months from the date of putting into operation</p> <p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier</p>
2.	Laundry washer	<p>Front Door loading; auto operation with manual override</p> <p>Dry Weight Capacity: not less than 70 kg, heavy-duty; 15 cycles a day average</p> <p>Operation: Fully automatic and manual; electronic-controlled front panel; programmable; front door opening</p> <p>Cylinder dimension: approximately 70 cm dia. X 70 cm depth x 11 cu. Ft</p> <p>Safety features: Safety alarm (audio and visual), emergency stop button, and auto stop; door interlock to main switch (door open safety mechanism)</p> <p>Wash speed: 35 - 45 rpm; High Extract speed: approximately 450-500 rpm; Intermediate extract speed: approximately 325-350 rpm.</p> <p>Power requirements: 220-240 V; <math>\pm</math> 10 %; 50 Hz; Motor size: approximately 2.2-3.0 kw</p> <p>Average Water Usage: Cold water: approximately 330-350 L; Hot water: approximately 140-150 L. Water flow rate per minute: 40-45 LPM; Water pressure (min-max): approximately 60- 900 kPa. Weight: approximately 450-500 kg</p> <p>The Manufacturer must have the following international quality control certificates: ISO 9001; CE mark or equivalent. The device must be mounted and installed by the expert of the Supplier in the workplace</p> <p><b>Guarantee:</b> 12 months from the date of putting into operation</p> <p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier</p>

3.	Ironing machine	<p>Type: Flatwork deep-chested ironer</p> <p>Roller diameter: approximately 600-800 mm</p> <p>No. of rollers: 1 or 2; Width: approximately 2.5 to 4 meters</p> <p>Maximum work rate: approximately 18-45 meters/minute</p> <p>Power requirement: 220-240 V <math>\pm</math> 10 %; 50 Hz</p> <p>The Manufacturer must have the following international quality control certificates:</p> <p>ISO 9001; CE mark or equivalent. The device must be mounted and installed by the expert of the Supplier in the workplace</p> <p>Guarantee: 12 months from the date of putting into operation</p> <p>Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier</p>
4.	<p>Continuous power Generator set, 3- phase, 250 kVA, 0.8 p.f., diesel-fueled; Heavy-duty industrial water-cooled, naturally aspirated or turbocharged diesel engine to include the following:</p>	<p>Sufficiently rated diesel engine to continuously supply the rated power of alternator at full load and 110 % of the load for 1 hour/24 hours; Engine speed: 1500-1800 RPM; Radiator and cooling fan complete with protection guards designed to cool down the engine at an ambient temperature up to 52° C; Sensors for high coolant temperature and low oil pressure; Engine filtration systems, Cartridge type dry air filters, Cartridge type fuel filters and full flow lube oil filters. All filters have replaceable elements; Exhaust system, heavy-duty industrial capacity exhaust silencer; Electrical System; 12-24 Volts DC., with belt driven battery charging; Electrical starting system with appropriate sized sealed battery; Shutdown solenoid for manual stopping and automatic shutdown on oil pressure and water temperature shut-down sensor switches.</p> <p><b>Alternator:</b> Direct coupled to diesel engine. The alternator is to be connected as 230/400 Volts, power factor 0.8, 3 - Phase, 4-wire, 50 Hz. Screen protected and drip-proof, self-exciting, self-regulating brushless alternator with fully interconnected damper windings, cooling system and sealed-for-life bearing. The insulations system is Class H. All windings are to be impregnated in either a triple dip of thermosetting moisture, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin or equivalent. A fully sealed automatic voltage regulator must maintain</p>

	<p>the voltage regulation (solid-state) @ +/- 0.5%. Nominal adjustment using a trimmer incorporated in the AVR. Radio Interference Suppression is in line with the provisions of BS800 and VDE Class G and N. Manual Start Control Panel; Set mounted Key-start panel in a vibration isolated sheet steel enclosure with a hinged lockable door. The control panel has to be equipped with the following Instruments and switches: Appropriate rating Circuit breaker; Voltmeter, switchable from phase to phase and 3 single phases; Amp-meter, switchable over 3 single phase readings; Main circuit breaker with alternator overload protection; Frequency Meter; Hours Run Meter; Coolant Temperature Gauge; Oil Pressure Gauge; Battery Condition Voltmeter</p> <p><b>Base-frame:</b> The generator set must be mounted on a heavy-duty welded steel base frame. The base frame must incorporate; An integral (lockable) fuel tank with a capacity of a minimum of 12 hours at full load. The tank is to be supplied complete with a fill cap with breather, fuel feed, and return lines to the engine and drain plug; Anti-vibration Mounting Pads must be affixed between engine/alternator feet and the base frame; Lifting points on the four corners of the frame;</p> <p><b>Service Tools:</b> Basic service tools for replacing fuel, oil, and air filters and oil changes must be supplied</p> <p><b>Consumables:</b> Consumables like; oil filters, fuel filters, air filters, and V-belts must be supplied for 3 years or 5000 running hours. The highest of the two options should be supplied</p> <p>Spare parts like gasket sets, batteries, injectors and diesel injection pumps must be priced in an overview but will not be part of the procurement. Spare parts must be available at least 8 years after delivery</p> <p><b>Documentation (per unit):</b> Users and Service manuals in English.</p> <p>The Manufacturer must have the following international quality control certificates: ISO 9001; ISO 13485 to be updated; The delivered equipment must comply with IEC 601-1-88; to be updated</p> <p><b>Guarantee period:</b> 12 months from the date of putting into operation or 1500 running hours</p>
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		<p><b>Mounting and installation:</b></p> <p>The device should be installed, tested and put into operation by an expert of the Supplier in the workplace. Appropriately sized manual or automatic transfer switch and cables should be provided</p> <p><b>Instructional advice in English:</b></p> <ul style="list-style-type: none"> <li>▪ Instructional advice must be arranged by the Supplier or its local agent in the workplace</li> <li>▪ Staff for using/operating the machine - 2 persons;</li> </ul> <p>Engineering technicians on service of the equipment - 1 person; Instructions should be included theoretical knowledge and practical skills required for usage and maintenance of the device</p>						
5.	Dryer; Electric	<p>Capacity: approximately 20-25kg; Weight: approximately 250 kg</p> <p>Dimensions: approximately 70 cm W x 110 cm D x 150 cm. H</p> <p>Power requirement: 220-240 V; <math>\pm</math> 10 %; 50 Hz</p> <p>Safety: Safety alarm (audio and visual), emergency stop button, and auto stop; door interlock to main switch (door open safety mechanism)</p> <p>Operation: Fully automatic and manual; electronic-controlled front panel; programmable; front door opening</p> <p>Controls: Start/On and off switch</p> <p>Heat time adjust/control: Hi; Med; Low; No heat; 0-60 minutes; 1-minute interval. Cool Down Time Adjust/control: 0-15 minutes; 1-minute interval; With certificates: ISO compliant or equivalent; Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Mounting and Installation: Device must be mounted and installed by the expert of the Supplier in the workplace. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the Supplier expert; 1-year warranty on parts and service.</p>						
6.	Centrifuge/Hydro extractor	<table border="0"> <tr> <td>Type: Floating drum system</td> <td>Capacity: approximately. 30-50 kg</td> </tr> <tr> <td>Spin speed: 1500 rpm mm x 650 mm x 950 mm</td> <td>Dimension: approximately 650</td> </tr> <tr> <td>Weight: approximately 100 kg</td> <td>Loading: Top or front</td> </tr> </table>	Type: Floating drum system	Capacity: approximately. 30-50 kg	Spin speed: 1500 rpm mm x 650 mm x 950 mm	Dimension: approximately 650	Weight: approximately 100 kg	Loading: Top or front
Type: Floating drum system	Capacity: approximately. 30-50 kg							
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Weight: approximately 100 kg	Loading: Top or front							

		<p>Basket and door: Stainless steel Spinning Cycle Timer: Digital, 0-30 minutes, 1- minute interval</p> <p>Safety: door open safety mechanism</p> <p>Power requirement: 220-240 V; <math>\pm</math> 10 %; 50 Hz; 1-2 Kw</p> <p>Mounting and Installation: Device must be mounted and installed by the expert of the Supplier in the workplace. With certificates: ISO compliant or equivalent; conform to relevant CE safety regulation or equivalent. Manuals in English (original copy/ hard copy and electronic copy); Operation Manual and Service Manual. Operational demonstration and basic preventive maintenance orientation for technicians and users to be carried out by the expert of the Supplier</p> <p>1-year warranty on parts and service</p>						
VII	<b>CUTLERY AND KITCHEN EQUIPMENT</b>							
1.	Cutlery Set/set of crockery	<p><b>Composition:</b> All stainless steel</p> <table> <tr> <td>Teaspoons: 300 pieces</td> <td>Dessert spoon: 300 pieces</td> </tr> <tr> <td>Tablespoons: 300 pieces</td> <td>Fork: 300 pieces</td> </tr> <tr> <td>Butter Knives: 100 pieces</td> <td>Knives: 300 pieces</td> </tr> </table> <p>China ware set: 300 pieces each; Consist of Teacups, saucers, side plates, plates, soup bowl, mug cups, drinking glass</p>	Teaspoons: 300 pieces	Dessert spoon: 300 pieces	Tablespoons: 300 pieces	Fork: 300 pieces	Butter Knives: 100 pieces	Knives: 300 pieces
Teaspoons: 300 pieces	Dessert spoon: 300 pieces							
Tablespoons: 300 pieces	Fork: 300 pieces							
Butter Knives: 100 pieces	Knives: 300 pieces							
2.	Refrigerator, 140 L	<p>Institutional refrigerator, heavy-duty; Compressor type, tropicalised for ambient temperatures up to 43 °C, Inside temperature range of +6 °C to -18 °C, With internal light; with freezing compartment, and four-layered main cooling compartments arrangement; with corrosion-resistant metal grid shelves</p> <p><b>Power requirement:</b> 220-240 V; <math>\pm</math> 10 %; 50 Hz</p>						
3.	Table, dining	<p><b>Construction:</b> Steel frame, epoxy coated, with wood grain Formica-laminated timber top, trimmed with hardwood or comparable.</p> <p><b>Dimension:</b> Approximately 900 (l) x 900 (w) x 750 (h) mm</p>						
4.	Boiling pan	<p><b>Construction:</b> Free-standing; made of stainless steel with reinforced frame;</p> <p>legs with oil and heat-resistant bung; pan uses direct or indirect heating natural gas</p>						

		<p>Piping to be heat and oil resistant, durable material of suitable dimension, preferably stainless steel, with minimal joints and connections that is 100 % leak-free. Accessible gas supply control and shut-off switch/valve</p> <p><b>Temperature Control:</b> Selectable rotary knob mechanism or better with real-time temperature indicator</p> <p><b>Pan:</b> 60-litre capacity with handle</p> <p><b>Switch On/Off:</b> easy operation On/Off and control with automatic ignition</p> <p><b>Safety features:</b> Gas leak detector that automatically shuts off the main gas valve supply in case of gas leaks.</p> <p><b>Warranty:</b> Two (2) years for parts and one (1) year for labour.</p> <p><b>Installation:</b> by an expert of the Supplier</p> <p><b>Standards:</b> with Certification from a relevant European Regulatory body or acceptable equivalent standard-setting body</p> <p><b>Documentation (per unit):</b> User' s and Service manuals in English</p>
5.	Potato peeler	<p><b>Capacity:</b> capable of peeling 8kg of potatoes in approximately 3/4 minutes; depending on the condition and age of the potato; wastage must be minimal; <b>Construction:</b> Bench-mounted, skid-free base, free standing</p> <p><b>Control switch:</b> easy and accessible On/Off switch</p> <p><b>Power requirements:</b> 220-240 V; 50 Hz; +/-10%</p> <p><b>Warranty:</b> One (1) year for parts and one (1) year for labour.</p> <p><b>Standards:</b> with Certification from a relevant European Regulatory body or acceptable equivalent standard-setting body</p> <p><b>Documentation (per unit):</b> User' s and Service manuals in English</p>
6.	Vegetable cutter	<p><b>Construction:</b> Two-piece equipment which is changeable fast and easy from the vegetable slicer to the food processor; bench-mounted, skid-free base, free standing</p> <p><b>Capacity:</b> Can make at least 50 different types of stylish cuts and mincemeat; 3-7 L</p> <p><b>Control switch:</b> easy and accessible On/Off switch</p>

		<p>Power requirements: 220-240 V; 50 Hz; +/-10%</p> <p>Warranty: One (1) year for parts and one (1) year for labour</p> <p>Standards: with Certification from a relevant European Regulatory body or an acceptable equivalent standard-setting body</p> <p>Documentation (per unit): User' s and Service manuals in English</p>
7.	Electric Mincing machine	<p>Construction: Meat mincing/processor; bench-mounted, skid-free base, free standing</p> <p>Capacity: Mince and process meat; 5-7 L</p> <p>Control switch: easy and accessible On/Off switch</p> <p>Power requirements: 220-240 V; 50 Hz; +/-10%</p> <p>Warranty: One (1) year for parts and one (1) year for labour</p> <p>Standards: with Certification from a relevant European Regulatory body or acceptable equivalent standard-setting body</p> <p>Documentation (per unit): User' s and Service manuals in English</p>
VIII	DENTAL EQUIPMENT	
1.	Amalgamator	<p>Mixing frequency of ~ 3500; Noiseless operation stable; Full Electrical Safety; Ergonomic design Maintenance free; Programmable mixing time: 1-99 sec; Functioning: intermittent; The system offered shall be designed to operate normally under the conditions of the purchaser' s country. The conditions include power supply, climate, temperature and humidity.</p> <p><b>Accessories and other requirements:</b></p> <p>Operation manuals and service manuals, at least 1 set each. All standard accessories/consumables/parts required for the proper operation of the above item shall be included; All standard Maintenance tools and cleaning /lubrication materials, where applicable, shall be included. Preferable in English.</p> <p>Manufacturing certificate; Mixing capsules 1 set; Mixing fork 1 set; Cleaning brush 1 piece; Spare parts list</p>
2.	Dental chair unit	<p><b>Dental chair unit complete for adults and children;</b> Suitable for an adult with special design features to accommodate children.</p> <p>Movement: Fully motorised, spindle or hydraulically driven with smooth movement. Tilting movement and inclination of the backrest and leg rest should be synchronized. Programmable for: Exit and entry / Rinsing position / Working position / Should have an LP (last</p>



	<p>position) button or returning the patient to the working position after rinsing. All should be controlled from both the dentist's and assistant's sides.</p> <p>They are supplied with a foot switch to control the unit's movements. All instruments should be provided with foil switches and barrier light switches at the holder for easy disinfection cleaning. A manometer for the pressurized air display should be integrated into the control panel and visible. The headrest should be adjustable and suitable for adults and children. Seat position: At maximum - ~80 cm and at a minimum - ~40 cm. The junction box of the unit should be integrated into the chair. The whole unit (air, water and power) should be turned on through the central foot control. The upholstery should be covered with seamless vinyl (or equivalent) cover for easy asepsis control. The base should be made of rust/corrosion-proof material. Safety features to ensure that the operator and equipment are protected. Electrical safety should comply with IEC 601-1 standard or equivalent.</p> <p><b>Water Unit / Cuspidor</b></p> <p>The water unit should have the flexibility of mounting on the left or right of the dental chair. Spittoon should be unbreakable and durable, designed for easy cleaning and cross-infection control. The unit should come with an automatic separating system. Tumbler should have automatically controlled filler activated by laminated/foil switches on both sides of the unit. The running time for bowl flushing and cup filling in the cuspidor shall be separately programmed in the rinsing position, fitted with a waste trap, which collects waste amalgam.</p> <p><b>Assistant's instrumentation</b></p> <p><u>Control switches:</u></p> <p>All control switches for the chair should be foil-switch (surface can be disinfected and cleaned after each patient) and identical to control switches on the doctor's working side. The arm carrying the entire assistant's instruments, i.e. HV and saliva ejector, must have a wide range of movement, allowing easy access from the left-hand side.</p> <p><u>Multi-Function Switches:</u></p> <p>The syringe should have functions for air, water and spray. The nozzle should be rotatable through 360°. The nozzle and sleeve can be easily disconnected and autoclaved at 135 deg C, with non-drip</p>
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		<p>and non-water retraction. The syringe tubing should be able to be disconnected for disinfection by the surgery assistant.</p> <p><u>Saliva ejector:</u></p> <p>With an automatic switch-on, the tip should be autoclavable up to 135° C and can also be replaced with disposable tips. It should be rotated through 360°. The holder should be designed for easy disinfection/cleaning by an assistant.</p> <p><u>High vacuum suction:</u></p> <p>High vacuum suction with automatic switch-on when lifted from the holder. The nozzle can be easily disconnected for autoclaving to 135° C. Nozzle should be rotatable through 360°. Suction intensity can be controlled. Should have filters to collect waste material, for easy cleaning and disinfection by an assistant. The suction tubing should be easily disconnected for cleaning and disinfection. The filters for the HV and saliva ejectors must be easily accessible and simple to clean and disinfections by an assistant. Should have continuous suction for not less than two hours.</p> <p><b>Dentist's instrumentation:</b></p> <p>The instrumentation should be carried by an adjustable swivel arm with a braking system or connected to the dental chair at the base, allowing a range of movement to ensure being able to place the unit in an ideal working position</p> <p>All instruments and control panels should be provided with laminated/foil switches for easy disinfection cleaning. It should have a 5x5cm Dental x-ray film viewer. All instrument tubing should be easily disconnected for disinfection. Convertible from right to left-handed          Shall have 5 Modules for instruments;</p> <p><u>Module I and II - High torque turbine:</u></p> <p>Hand piece should be autoclavable up to 135° C and so marked.</p> <p>The handpiece should be rotatable through 360°.</p> <p>The handpiece has at least 70 ml of spray per minute.</p> <p>The handpiece should be smooth for easy cleaning, and the shield angle should be approximately 20 deg for better visibility.</p>
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		<p><u>Module V- Multiple function syringe:</u></p> <p>The syringe should have air, water and spray functions with a built-in low voltage electrical heater. The direction of the spray can be adjusted by rotating the nozzle. Nozzle and sleeve can be easily disconnected for autoclaving up to 135 ° C.</p> <p>It should be a non-drip and preferably non-water retraction. The protective sleeve and nozzle can be removed for autoclaving.</p> <p><b>Foot control:</b></p> <p>Foot control should be able to: Control, start and stop the turbine handpiece, micro motor and scaler. Regulated speed control for micro motor and scaler. Rotational direction micro-motor can be changed on the foot control. Foot control should also provide a chip blower facility. Positioned anywhere on the floor and protected against dust and moisture.</p> <p><b>Operating light:</b></p> <p>The light should be mounted on the unit with adjustable height and can swivel horizontally and vertically.</p> <p>Maximum light intensity should be 25,000 lux, and colour corrected at 5,500 Kelvin at all intensities. The intensity is controlled to give an infinite variety of light.</p> <p>The reflector should be a parabolic glass mirror with a closed system. It should come with an efficient cooling fan. Should use halogen bulb (or equivalent) of low voltage and easy to replace.</p> <p>The light should preferably have dimmer control for a tooth-coloured filling.</p> <p>The operating light should be able to activate by both the assistant and operator.</p> <p><b>Dentist stool and assistant stool, 1 unit each:</b></p> <p>The stool for the dentist should be ergonomically designed to provide good lumbar support and have an adjustable backrest.</p> <p>The stool for the assistant should be ergonomically designed to provide good lumbar support and have an adjustable backrest, which can function as an armrest and be adjustable. It should have a wide, stable base on 5 castors. Adjustable seat height: Maximum not less than 63 cm, Minimum not more than 50 cm</p>
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		<p><b>High vacuum suction motor:</b></p> <p>Suction capacity: not less than 600ml/ min water suction continuous</p> <p>The separator and amalgam separator should be fully automatic, ensuring solids and liquid components are separated from the vacuum air and continuously discharged through an automatic system. The separator should be automatically cleaned. A domestic water filter which can filter at least 5-micron debris should be fitted to the pipe before reaching the junction box to ensure the cleanliness of the water supply to the unit system.</p> <p><b>Air compressor:</b></p> <p>Oil-less and maintenance-free. The refrigerated dryer must be fitted to produce approximately 10% relative humidity.</p> <p>Loudness: &lt;50 dB(A); Free air delivery at 5 bar: approximately 50 l/min</p> <p>Displacement at 0 bar: approximately 90 l/min</p> <p>Pressure range: 5 - 8 bar</p> <p>Tank capacity: &gt;20 l.</p> <p>Dry air system</p> <p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>Accessories and other requirements:</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard maintenance tools and cleaning /lubrication materials shall be included. At least 1 set of English operation and service manuals. Manufacturing certificates; Spare parts list</p>
3.	Dental surgeon stools	<p>The stool for the dentist should be ergonomically designed to provide good lumbar support and have an adjustable backrest. The stool for the assistant should be ergonomically designed to provide good lumbar support and have an adjustable backrest that can function as an armrest and be adjustable. It should have a wide, stable base on 5 castors. Adjustable seat height: Maximum not less than 63 cm. Minimum not more than 50 cm. The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p>

		<b>Accessories and other requirements:</b>	
		All standard accessories/consumables/parts required for the proper operation of the above item shall be included. Where applicable, all standard Maintenance tools and cleaning /lubrication materials shall be included—at least one set each, operation and service manuals, at least 1 set each in English.	
		Manufacturing certificates; Spare parts list	
4.	Dental instrument set	Handle, for mouth mirror	3 x
		Mouth mirror, extra plane, diam. 22mm	20 x
		Perry tooth tweezers, serrated,130mm	2 x
		Merian tooth tweezers, smooth,150mm	2 x
		Cotton wool container, 60mm high, d:50mm	2 x
		Block excavator, double-ended	2 x
		Derby-perry excavator, double-ended	6 x
		White excavator, no.5; numbers 14,17,18,19,20	2 x each
		Anatomical, tooth, forceps, F. up, incisors, no.1,2, 3	2 x each
		Trotter, anatomical, tooth, forceps, no.168	2 x
		Anatomical, tooth, forceps. up inches., no.107	2 x
		Anatomica, tooth, forceps F up bicuspid no.17,18	2 x each
		Anatomical, tooth, forceps F.Upper root, no.29	2 x
		Anatomical, tooth forceps, fig.30, up. roots	2 x
		Anatomical, tooth forceps Up Roots, no 51a	2 x
		Anatomical, tooth forceps, Flow molars, no 23, 24	2 x each
		Buechs, anatomical tooth forceps, no. 13,33	2 x each
		Tooth, forceps for children, fig.37, 159, 39R, 39L,51s	2 x each
		Klein, tooth, forceps, F child, flow, incision	2 x
		Klein tooth, forceps, F children, flow. molars	2 x
		Klein tooth, forceps F children, flow. roots	2 x
		Heidbrink elevator pointed	2 x
		Flohr elevator; left and right	2 x each
		Heidbrink elevator left and right	2 x each

		<p><b>ACCESSORIES and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. Where applicable, all standard Maintenance tools and cleaning /lubrication materials shall be included—at least one set each, operation and service manuals, at least 1 set each in English.</p> <p>Manufacturing certificates Suitable sterile container or packing material shall be included as standard supply. Consumables such as filters, identification labels, and seals shall be supplied in at least 100 pieces each.</p>
5.	Dental x-ray film processor	<p>The unit shall be a table-top model. Shall be able to develop the intra-oral x-ray films; have covered openings allowing free access to the internal container. Shall be provided with the viewing glass which will be able to filter the daylight. Shall be provided with the three containers to capture developer, fixer and water.</p> <p><b>ACCESSORIES and other requirements</b></p> <p>Operation manuals and service manuals, at least 1 set each, in English. All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard maintenance tools and cleaning /lubrication materials shall be included.</p> <p>Manufacturing certificates; Developer solution, 5 bottles; Fixer solution, 5 bottle</p> <p>Spare parts list.</p>
IX	NEPHROLOGY EQUIPMENT	
1.	Dialyser and reprocessing unit	<p>Reprocessor</p> <p>Single station with dual-microprocessor and LCD. System self-diagnosis; System self-preparation and disinfection. Automatic disinfection programmer and dialyser evaluation. Digital TBV or TCV measurement. Digital air pressure leak check. RO water supply: 1.5 L/min @ 2-3 bar</p> <p>Cycle time: approximately 10 min</p> <p>Disinfection: approximately 400ml per dialyzer. Automatic cleaning and reverse ultra-filtration. The supplier shall include installation work connecting the unit to the water treatment system. The system offered shall be designed to operate normally under the country's</p>

		<p>conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>ACCESSORIES and other requirements</b></p> <p>Operation manuals and service manuals, at least 1 set each, in English. All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard maintenance tools and cleaning /lubrication materials shall be included.</p> <p>Manufacturing certificates; Spare parts list</p> <p>Dialyser disinfection solution, 5 bottles</p>
2.	Dialysis unit	<p>Fully automatic and integrated unit. Compact and mobile with lockable castor wheels. Able to upgrade to new treatment options. Shall conform with IEC 60601-1 standard. Auto self-test with auto priming. With IV bottle holder/ hanger</p> <p><b>Control Panel</b></p> <p>Soft touch or touch screen controls. Monitoring of parameters with alarm facilities.</p> <p>Built-in variable rinsing program. A display bar shall monitor conductivity, Arterial, Venous &amp; transmembrane pressure. The ability to calculate the Kt/V during treatment.</p> <p><b>Dialysate pumping system</b></p> <p>Variable dialysate flows up to 800ml. Selectable dialysate temperature from 35 to 39 deg C.</p> <p>Dialysate concentration conductivity range 13 to 15.5 mS/cm at 25 deg C. Selectable ultra-filtration rate from 0 to 4 lit per hr. Blood leak sensitivity shall be 0.5ml/min.</p> <p><b>Blood pumping system</b></p> <p>Arterial pressure monitoring. Indicating range from -300 to +280 mmHg.</p> <p>Venous pressure monitoring. Indicating range from -60 to +520 mmHg.</p> <p>Transmembrane pressure monitoring. Indicating range from -60 to +520 mmHg. Blood pump delivery range from 30 to 600ml/min.</p>



		<p>Air detection shall be by ultrasonic transmission or equivalent. Heparin pump delivery range from 0 to 10ml/hr. Variable syringe sizes shall be used in the system.</p> <p><b>Disinfection system</b></p> <p>The cleaning system shall comprise cleansing, heat cleansing, disinfecting and heat disinfecting. The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity. The offer shall include installation work connecting the unit to the water treatment system.</p> <p><b>ACCESSORIES and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. Where applicable, all standard maintenance tools and cleaning /lubrication materials shall be included—at least one set each, operation and service manuals, and at least 1 set each in English.</p> <p>Manufacturing certificates; Spare parts list</p> <p>Infusion line, bloodline 100 sets each</p>
X	PHYSIOTHERAPY EQUIPMENT	
1.	Short-wave therapy apparatus	<ul style="list-style-type: none"> <li>• Main unit, mobile on a trolley; 2 electrode fully adjustable amps;</li> <li>• 2disc Schliephake electrode connected to the electrode cable. Electrode arm adjustable: all directions</li> <li>• Neon check light. Generator frequency: approximately 27 MHz <math>\pm</math> 0,5%; Output power for continuous waves: max. 400W; Output power for pulse wave: max. 1000W; and</li> <li>• Pulse duration: approximately 400 s</li> </ul> <p>Power supply: 220-V - 240 V; <math>\pm</math> 10% 50/60 Hz</p> <p>Pulse repetition frequency: approximately 15-200 Hz, adjustable electronic timer with automatic stop: 0 max. 30 min</p> <p>Surface resistance against disinfectants. The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p>

		<p><b>ACCESSORIES and other requirements</b></p> <p>Operation manuals and service manuals, at least 1 set each, in English. All standard accessories/consumables/parts required for the proper operation of the above item shall be included. All standard maintenance tools and cleaning /lubrication materials shall be included.</p> <p>Manufacturing certificates; Certified ISO 9001; Spare parts list</p>
2.	Electro-stimulator	<p>For management and relief of pain, the Unit shall be portable, compact and lightweight; 2 channels with indications of lamp intensity of each channel can be separately regulated. Pulse duration / pulse frequency: approximately 150 micro sec / 10-15-20-30-40-60-80-100Hz.</p> <p>Power supply: Batteries</p> <p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity. It shall meet the standards of IEC 601-1 patient and electrical safety and IEC 601-1-2 electromagnetic compatibility.</p> <p><b>ACCESSORIES and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. Where applicable, all standard maintenance tools and cleaning /lubrication materials shall be included—at least one set each, operation and service manuals, and at least 1 set each in English.</p> <p>Manufacturing certificates; Certified ISO 9001 Spare parts list: Electrode cables, 2 pieces; Rubber electrodes, 4 pieces; 9V Alkaline battery, 2 pieces; Electrode gel, 1 bottle; Plaster 5 rolls</p>
3.	Electric traction apparatus	<p>An adjustable height table shall be provided with an adjustable angle backrest. It shall be with the standard traction unit, which should be able to provide continuous and intermittent therapy types. Should be able to set traction force/ base force setting approximately from 15 ~ 900 Newton. Should be able to hold the traction time/ base time settings approximately 0 ~ 60 sec. Shall have variable traction speed facilities. The traction unit shall contain a control unit with control knobs and a prominent digital display for all the vital settings. All necessary safety settings shall be provided, along with a patient stop switch shall be provided. Unit shall be provided with flexion stool, lumbar and cervical bar and spreader bar.</p> <p>Shall comply with IEC 601.1 safety standards. A traction frame shall be provided.</p>

		<p>The system offered shall be designed to operate normally under the country's conditions. The conditions include power supply, climate, temperature and humidity.</p> <p><b>ACCESSORIES and other requirements</b></p> <p>All standard accessories/consumables/parts required for the proper operation of the above item shall be included. Where applicable, all standard maintenance tools and cleaning /lubrication materials shall be included—at least one set each, operation and service manuals, and at least 1 set each in English.</p> <p>Manufacturing certificates; Certified ISO 9001; Spare parts list: Thoracic belt, 1 unit; Pelvic belt, 1 unit; Clamps &amp; strap, 1 set sufficient for all traction procedures</p>
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