BIDDING DOCUMENT
(MACHINERY/EQUIPMENTS/SURGICAL INSTRUMENTS/HOSPITAL FURNITURE)

FOR

DISTRICT HEADQUARTER HOSPITAL JHANG

HEALTH DEPARTMENT
DISTRICT GOVERNMENT JHANG
Phone No.047-9200139
ذکر کے بارے میں خوشحال کے

اپنے وقت پر، افغانستان کے

دفتری خبروں کے اور مالیاتی

2015-2014
Health Department District Government Jhang invites sealed bids/tenders from Manufacturers and Importers/Sole Agents of Foreign Principals for the Procurement of Machinery/Equipments/Surgical Instruments & Hospital Furniture for District Headquarter Hospital Jhang of Health Department District Government Jhang as per tender notice for the year 2014-2015 on free delivery in District Jhang.

2. Interested bidders may get the bidding documents at the address mentioned below on submission of written application alongwith payment of non-refundable fee of Rs.1000/- (One Thousand Only). Bidding documents shall be issued upto 29.12.2014 at 03:00 PM. A copy of the bidding documents is also available for information on the website of Government of the Punjab i.e. (http://ppra.punjab.gov.pk)

3. Single Stage – two envelope procedure, as per Rule 38 (a) of Punjab Procurement Rules, 2014 shall be applied.

4. Sealed bids are required to be dropped in tender box by the interested bidders in the office of EDO (Health) Jhang by 30.12.2014 at 11:00 AM. The bids shall be opened on the same day at 01:00 PM in the presence of the bidders or their authorized representatives.

5. The procuring agency reserves the rights to accept or reject any or all bids without assigning any reason.

6. The detail Terms and Conditions may be seen in the Bidding Document or on the websites (http://ppra.punjab.gov.pk)

Note: All assessments and procuring procedures i.e. receiving, opening and awarding etc. shall be governed by the Punjab Procurement Rules, 2014.

EXECUTIVE DISTRICT OFFICER
(HEALTH) JHANG
### SPECIFICATIONS FOR THE PURCHASE OF MACHINERY/EQUIPMENTS/SURGICAL INSTRUMENTS & HOSPITAL FURNITURE FOR DISTRICT HEADQUARTER HOSPITAL JHANG FOR THE YEAR 2014-2015

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<th>Specifications of Equipments/Instruments</th>
<th>Anticipated Quantity</th>
<th>Country of Region</th>
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<tr>
<td>1.</td>
<td><strong>ENT Headlight</strong>&lt;br&gt;ENT Headlight with LED</td>
<td></td>
<td>USA JAPAN EUROPE</td>
</tr>
<tr>
<td></td>
<td><strong>Tonsillectomy &amp; Adenoidectomy Set for Adult &amp; Children</strong>&lt;br&gt;Adult = 02 Set&lt;br&gt;Child = 01 Set</td>
<td></td>
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<tr>
<td>i.</td>
<td>RUSSEL-DAVIS Tongue Blade, Size 1</td>
<td>3</td>
<td></td>
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<tr>
<td>ii.</td>
<td>RUSSEL-DAVIS Tongue Blade, Size 2</td>
<td>3</td>
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<td>iii.</td>
<td>RUSSEL-DAVIS Tongue Blade, Size 3</td>
<td>3</td>
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<td>iv.</td>
<td>RUSSEL-DAVIS Tongue Blade, Size 4</td>
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<td></td>
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<td>v.</td>
<td>HARTMANN Tongue Depressor, length 17 cm</td>
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<td></td>
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<tr>
<td>vi.</td>
<td>HARTMANN Nasal Cutting Forceps, working length 11 cm, round, size 3.</td>
<td>3</td>
<td></td>
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<td>vii.</td>
<td>BRUENINGS Tongue Depressor, length 19 cm</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>viii.</td>
<td>BACKHAUS Towel Forceps, length 11 cm</td>
<td>3</td>
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<tr>
<td>ix.</td>
<td>DAVIS-MEYER Mouth Gag, Frame only For use with tongue blades</td>
<td>3</td>
<td></td>
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<tr>
<td>x.</td>
<td>McIVOR Mouth Gag, Frame only. For use with tongue blades</td>
<td>3</td>
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<tr>
<td>xi.</td>
<td>EVES Tonsil Snare, length 27 cm</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>xii.</td>
<td>Wire Snare Loops, stainless, for tonsil snare,</td>
<td>3</td>
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<td>xiii.</td>
<td>BLOHMKE Forceps, length 20 cm</td>
<td>3</td>
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<td>xiv.</td>
<td>GOOD Scissors, length 19.5 cm</td>
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<td>xv.</td>
<td>YANKAUER Suction Tube, with big holes, central hole ø 4.0 mm, side holes 2.0 mm, Length 29 cm, standard model</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>xvi.</td>
<td>HENKE Dissector, length 23.5 cm, 11.5 mm wide (standard size)</td>
<td>3</td>
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<td>xvii.</td>
<td>SCHNITZ Forceps, standard size, length 19 cm, slightly curved</td>
<td>3</td>
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<td>xviii.</td>
<td>MIKULICZ Forceps, small size, 1x2 teeth, length 18 cm</td>
<td>3</td>
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<tr>
<td>xix.</td>
<td>Forceps, serrated, length 20 cm</td>
<td>3</td>
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<tr>
<td>x.</td>
<td>Tissue Forceps, length 20 cm, small, 2 x 3 teeth, 4.5 mm wide</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>ROEDER Loop Applicator, Model E length 27 cm</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>Loops fro ROEDER Applikator , Polyglycolic acid, absorbable, 12 sterile packed, size 15</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>BECKMANN Adenoid Curette, straight, length 22 cm, size 0</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>BECKMANN Adenoid Curette, straight, length 22 cm, size 1</td>
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<tr>
<td>j.</td>
<td>BECKMANN Adenoid Curette, straight, length 22 cm, size 2</td>
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<tr>
<td>j.</td>
<td>BECKMANN Adenoid Curette, straight, length 22 cm, size 3</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>BECKMANN Adenoid Curette, straight, length 22 cm, size 4</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>NAGER Pillar Retractor, length 21 cm</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>JURACZ Adenoid Forceps, sharp, length 19 cm</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>HEGAR Needle Holder, tungsten carbide inserts, slender, length 18 cm.</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>Bipolar Forceps, insulated, tips curved, blunt, tips 2 mm, length 19 cm.</td>
<td>3</td>
<td></td>
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<tr>
<td>j.</td>
<td>Bipolar High Frequency Cord to Coagulator AUTOCON-system (50, 200, 350)and Erbe Coagulator; for bipolar coagulation forceps; length 300 cm.</td>
<td>3</td>
<td></td>
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<tr>
<td>j.</td>
<td>Negus Artery Forcep (Small)</td>
<td>6</td>
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<tr>
<td>j.</td>
<td>Negus Artery Forcep (Large)</td>
<td>6</td>
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<tr>
<td>j.</td>
<td>Palot Elevator</td>
<td>6</td>
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<tr>
<td>j.</td>
<td>Negus Ligature Carrier (Tie PUsheer)</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>Tooth Forceps (Long Prong Narrow)</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>Plain Forcep Straight (Long Prong Narrow)</td>
<td>3</td>
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<tr>
<td>j.</td>
<td>Plain Curved Straight (Long Prong Narrow)</td>
<td>3</td>
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</tbody>
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**Nasal Bone Reduction Set + Rhinoplasty Set**

- Knife Handle No.3
- Operating Scissors Straight, 5-1/2", Sharp-Blunt Points
- Iris Scissors 4-1/2", Straight
- Iris Scissors 4-1/2", Curved
- Adson Dressing Forceps, 4-3/4"
- Adson Tissue Forceps 1 X 2 Teeth 4-3/4"
- Brown-Adson Tissue Forceps, 7x7 Teeth, 4-3/4"
- Gruenwald (Jansen) Bayonet Dressing Forceps 6-1/2"

<table>
<thead>
<tr>
<th>Anticipated Quantity</th>
<th>Country of Region</th>
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<tbody>
<tr>
<td>02</td>
<td>USA JAPAN EUROPE</td>
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<tr>
<td>03</td>
<td>Local</td>
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<tr>
<td>01</td>
<td>USA JAPAN EUROPE</td>
</tr>
<tr>
<td><strong>Castroviejo Suturing Forceps 4&quot;</strong>, 1 X 2 Teeth</td>
<td></td>
</tr>
<tr>
<td><strong>Freer Chisel, 6-1/2&quot; Curved Blade 4mm Wide</strong></td>
<td></td>
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<tr>
<td><strong>Freer Elevator 7&quot; Double End Sharp And Blunt Blades 5mm Wide</strong></td>
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<tr>
<td><strong>Frazier Suction Tube, 9 French</strong></td>
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<tr>
<td><strong>Mallet 7-1/2&quot; Lead Filled/W Stainless</strong></td>
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<tr>
<td><strong>Vienina Speculum 5-3/4&quot; Bayonet Wide</strong></td>
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<tr>
<td><strong>Ballenger Swivel Knife 7-3/4&quot; Bayonet 4mm Wide</strong></td>
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<tr>
<td><strong>Ballenger Swivel Knife 7-3/4&quot; Straight 4mm Wide</strong></td>
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<tr>
<td><strong>Paratt Ethmoid Curette 6-1/4&quot; Double Ended Fenestrated</strong></td>
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<tr>
<td><strong>Joseph Button End Knife 6-1/4&quot; Angled Blade 4 X12</strong></td>
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<tr>
<td><strong>Joseph Periosteal Elevator 7&quot; Strong Curve 6.5mm</strong></td>
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<tr>
<td><strong>Cottle Osteotome , 7&quot; 7mm Wide</strong></td>
<td></td>
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<tr>
<td><strong>Cottle Osteotome , 7&quot; 12mm Wide</strong></td>
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<tr>
<td><strong>Fomon Scissors Slightly Curved 5mm</strong></td>
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<tr>
<td><strong>Cottel Dorsel Scissors , 6-1/2&quot; Heavy</strong></td>
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<tr>
<td><strong>Kazanjian Nasal Cutting Forceps 7-1/2&quot;</strong></td>
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<tr>
<td><strong>ASH Septum Forceps 9&quot; Angled Blades Flat Inside</strong></td>
<td></td>
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<tr>
<td><strong>Instruments Box Stainless Steel</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Stretcher Trolley for Patients
- Approx: 2035L x 710B x 915-1000H.
- Steel frame with epoxy polyester finish.
- Dia 125 wheels, 2 with brakes.
- 4 ring bumpers.
- Mattress thickness 5 cm. with fire retardant vinyl covering
- Pedal controlled hydraulic height adjustment.
- I.V. Pole.
- Slide away footstep.
- Folding Cot Sides.
- With forward and backward tilt movement.
- Backrest adjustable by means of ratchet mechanism.

### Wheel Chair Non-Folding
- Made of heavy gauge steel tubing, Swingaway detachable footrests and detachable arm rest,
- Seat width 51Cm, Suitable for patients upto 135Kg.
- 20Cm Solid front wheels, 60Cm pneumatic rear wheels.
- Distance between rear wheels : 68Cm.
- Distance between front & rear wheels: 40Cm. Sear height: 51Cm

### Dialysis Machine
1. **Description of Function**
   - Haemodialysis, is a method for removing waste products such as potassium and urea, as well as free water from the blood when the kidneys are incapable of this (i.e. in renal failure). It is a form of renal dialysis and is therefore a renal replacement therapy.

2. **Operational Requirements**
   - Machine should have facility for Acetate, Bicarbonate, Sequential Dialysis (Isolated UF) upgradable to future software developments.
   - The blood pump should run even in the absence of water or dialysate flow.

3. **Technical specifications**
   - Should have facility for conventional and High Flux dialysis.
   - Machine should have two bacterial filters (pyrogen filters) one at water inlet and one at before water going to dialyser.
   - Battery back-up for at least 20-30 minutes to run complete machine with heater supply.
   - Should have Na, Bicarbonate and UF profiling.
   - Dialysate temperatures selectable between 35 degrees C to 39 deg. C.
   - Variable conductivity setting between 12 to 15 ms/cm.
   - Should have variable dialysate flow 300-800 ml/min.
   - Should have facility to show trends curve of all parameter for 15-20 minutes.
   - Heparin pump with syringe sizes up to 50ml with pump flow rate from 1-10 ml/hr(0.1ml increments).
   - Ultrafiltration 0.1 to 2.5 litres/hr. The in and out fluid circuit must be separated so that there is no chance of contamination in the event of membrane rupture.
   - Treatment parameter should be displayed by graph and digitally both.
   - Should have integrated heat and chemical disinfection programme with day night week schedule.
   - Should have accurate feedback control conductivity mixing technique.
   - Should have drain facility.

40 Local

20 Local

01 USA JAPAN EUROPE
15. Should have accurate UF control by flow by volume measurement technique.
16. Extra facilities like Blood Volume sensor, Bicarb select technique.
17. All important data should be presented so that machine can be used anytime without feeding data every time.
18. Should have automatic self-test facility.
19. Should have auto ON/OFF facility.
20. Should have touch button screen and large colour TFT screen.
21. Automatic diagnosis of malfunctioning with on line ability to show the faults with trouble (Technical service mode).
22. Machine can be connected to computer to feed all data and trouble shoot whenever any problem.
24. Ability to monitor pulse rate and NIBP.
25. Audio visual alarms on limit violation of conductivity, blood leak, air leak, transmembrane pressure alarms, Dialysis pressure alarms, Dialysis temperature alarms, dialysis can empty alarm, end of disinfection alarm, bypass alarm and blood pump stop alarm.
27. Built-in device for measurement and monitoring of effective urea clearance and dialysis dose(KT/V).

4. System as specified
   - All consumables required for installation and standardization of system to be given free of cost.

5. Environmental factors
   - The unit shall be capable of being stored continuously in ambient temperature of 0-50 deg C and relative humidity of 15-90%.
   - The unit shall be capable of operating continuously in ambient temperature of 10-40deg C and relative humidity of 15-90%.

6. POWER SUPPLY
   - Pore input of to be 220-240 V AC, 50 Hz fitted with Indian plug.
   - UPS of suitable rating with voltage regulation and spike protection for 30 minutes back up.

7. Standards, safety and training.
   - US-FDA OR European CE approved product.
   - Manufacturer/supplier should have ISO certification for quality standards.
   - Shall comply with IEC 60601-2-16 safety requirementsof medical electric part 2-particular requirements for the safety of Haemodialysis equipment.
   - Should carries warranty for 2 years.
   - Comprehensive training lab staff and support services till familiarity with the system.
   - Should have local service facility. The service provider should have necessary equipments recommended by the manufacturers carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

8. Documentation
   - User/Technical/Maintenance manuals to be supplied in English.
   - Certificate of calibration and inspection.
   - List of equipment available for providing calibration and routine preventive maintenance, support, as per technical manual.
   - List of important spare parts and accessories with their part number and costing.

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**Emergency First Aid Set**

L-ABC instruction in the inside of the lid.
Measure: height 47cm, width 30cm.
Art.nr: 91172

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<tr>
<th>Contents</th>
<th>Art.nr.</th>
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<tr>
<td>1pcs 97437 Finger tube bandage</td>
<td>91172</td>
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<tr>
<td>1pcs 92109 First Aid Bandage 7.5x12 cm</td>
<td>92109</td>
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<tr>
<td>1pcs 92111 First Aid Bandage 17x17 cm</td>
<td>92111</td>
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<tr>
<td>1pcs 94376 Burn Free burn dressing incl bandage</td>
<td>94376</td>
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<tr>
<td>1pcs 97106 Respiratory sheet</td>
<td>97106</td>
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<tr>
<td>1pcs 95492 Plaster Dispenser</td>
<td>95492</td>
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<tr>
<td>1pcs 94418 Display box of 40 wound swabs</td>
<td>94418</td>
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**Drip Stand**

Five Wheel
Movable
4 Sides Hangers
Height adjustable
(Standard Size)

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<th>Drip Stand</th>
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<td>Five Wheel</td>
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<table>
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<th>Description</th>
<th>Quantity</th>
<th>Origin</th>
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<td>9.</td>
<td><strong>Glucometer (10 Pieces)</strong> Glucose monitor, battery operated, hand held, complete with case lancet holder, lancets and glucose monitoring strips.</td>
<td>52</td>
<td>USA, JAPAN, EUROPE</td>
</tr>
<tr>
<td>10.</td>
<td><strong>Thermometer</strong> Glass mercury type clinical thermometer graduated in centigrade and Fahrenheit</td>
<td>10</td>
<td>Imported</td>
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<td>12.</td>
<td><strong>Stethoscope</strong> Pinard type fetal stethoscope manufactured in nylon or aluminum</td>
<td>200</td>
<td>Imported</td>
</tr>
<tr>
<td>13.</td>
<td><strong>BP Apparatus Mercury</strong> Mercury 300mm Hg with die cast metal housing large reservoir with spilling over arrangement, tube with 3 mm silicone. Rubber bulbs. 1 Velcro Cuff, Adults, Pediatric and Neonates. Complete with basket for storage of cuffs.</td>
<td>100</td>
<td>Imported</td>
</tr>
<tr>
<td>14.</td>
<td><strong>BP Apparatus Mercury with Stand</strong> Mercury 300mm Hg with die cast metal housing large reservoir with spilling over arrangement, tube with 3 mm silicone. Rubber bulbs. 1 Velcro Cuff, Adults, Pediatric and Neonates. Complete with basket for storage of cuffs.</td>
<td>100</td>
<td>Imported</td>
</tr>
<tr>
<td>15.</td>
<td><strong>Vertical General Purpose Steam Sterilizer (Autoclave 100 Liters)</strong> Vertical Steam Sterilizer Automatic. Capacity 100 liters. Usable sterilization pressure 1.0 kg/cm2 121 degree c, 1.5 Kg/cm2 – 127 degree c adjustable. Stainless steel chamber. Pressure &amp; temperature indicator/gauge with built in immersion type sheathed heater. Safety breaker cut off in case of short circuit, over current of electricity leakage of heater. With stainless steel wire baskets, bottom container, rubber hose, electric cord and spare element and silicone rubber lining. Operating voltage 220V/50Hz.</td>
<td>03</td>
<td>Local</td>
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<tr>
<td>16.</td>
<td><strong>Instrument Trolley</strong> Mobile, 4 leg frame made of Stainless steel, Pipe 16 SWG all made of stainless steel 1” Dia. Tubular frame forms a safety rail, no sharp edges. Two shelves surface ground to reduce glare, resistant to disinfectants Instrument trolley, 800mm high, fitted above and below with frames and shelf 20SWG made of Cr Ni steel size 24” x 36” to accept two sterilization tray. Four 75mm swivel castors, electrically conductive. Dimensions are approximate.</td>
<td>06</td>
<td>Local</td>
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<tr>
<td>17.</td>
<td><strong>Cabinet for Instruments</strong> Made of MS 16 SWG with three side covered. Front double door with lock and hinges. Front door having 5mm glass. Four glass shelves 5mm Floor clearance 9” with legs 1-1/4”x1-1/4” 16SWG pipe. U-shape rod Handles / grip with rubber stumps.</td>
<td>06</td>
<td>Local</td>
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<td>18.</td>
<td><strong>Dressing Sterilizing Drum 14 x 14</strong></td>
<td>12</td>
<td>Local</td>
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<td>19.</td>
<td><strong>Curtain Screen Four Pieces</strong></td>
<td>100</td>
<td>Local</td>
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<td>20.</td>
<td><strong>Masquito Artery Forceps</strong></td>
<td>100</td>
<td>Local</td>
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<tr>
<td>21.</td>
<td><strong>Ambu Bag Adult Size</strong> Silicon Resuscitation Bag with adult and child face mask sizes 1,2,3,4 with E2 valve and fully</td>
<td>100</td>
<td>Local</td>
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</tbody>
</table>
### Ambu Bag Paeds Size
- Silicon Resuscitation Bag with adult and child face mask sizes 1,2,3,4 with E2 valve and fully autoclavable.
- Reservoir Bag volume 1700 ml or more.
- Oxygen Reservoir Volume approximately 2500ml for adult and child.
- Tidal maximum volume: approximately 1000ml for adult.
- Resuscitation bag to be manually operable and able to be connected to an oxygen source upto 100% for ventilation through a mask or an end tracheal tube.
- To be able to connect to an oxygen source upto 100%.
- Unit to be supplied with a carrying case.

### Laryngoscope Set (Pak)
- Handle fiber optic illumination standard fitting, and spare bulb for fiber optic handle. Stainless steel macintosh/magill blades preferably coated.
  1. 90 mm length Macintosh blade for infants and neonates
  2. 110-115 mm length macintosh blade.
  3. 135 mm length macintosh blade.
  4. 160 mm length macintosh blade.
- Complete set in case 4 blades

### Dressing Table
- Completely made of stainless steel AISI 304, material thickness 1.5 mm. Table top with negative diagonal folds to the drain (0 50 mm) and PVC drain tube. Can be disassembled in 5 pieces, easy assembly with hexagonal spanner (incl. assembly tool).

### Folding Examination Couch 3 Section with foam 3” Rexin A-Quality Square Pipe Painted
- Folding table with three aluminium sections.
  - The head rest, equipped with a breathing hole and plug, can be adjusted manually (+80°).
  - This couch is available only with black leatherette covering.
  - Safe working load: 150 kg

### Nebulizer
- Steam inhaler to dislodge the mucous from respiratory tract.
  - **Power Source:** AC 220 V, 50 Hz 1 Phase.
  - **Pressure:** 0.2 to 2.6 kg per sq. cm.
  - Automatic disconnection following exhaustion of water supply.
  - Applicator Head Adjustable.
  - Heating time equal to 3 min max.
  - Ultraviolet Filter

### Air Conditioned Ambulance
- Floor:
  - Made of water and termite proof half inch thick plywood or imported HDF laminated with PVC coating. The floor should be carpeted with flexible, non-slip, non-standing, and waterproof and
Washable special Vinyl covering at least 2mm thick in single piece flooring. All side gaps should be sealed with silicon.

- Internal Ceiling:
  All internal ceiling is replaced with F/G ceiling, which is waterproof, washable, and disinfectable. ABS sheets on sidewalls. All sidewall in patient compartment poshes made of hand board is replaced with washable disinfectable ABS sheets and this is to ensure cleanliness.

- Partition Wall:
  In between driver and patient compartment of 3/4" lamination sheet moulded with F/G mat fixed with steel brackets to sidewalls. One window with sliding glasses.

- Side Utility Panel:
  Made of ABS/F.G moulded material on the right side. Having following items:
  - Examination LED's light.
  - Oxygen outlets (02).
  - Oxygen alarm.
  - All switches and sockets (12 volts) and fuse box.

- Suction unit cabinet large made of ABS / FG material with rounded edges, top to accommodate AED having special lock system and bottom to accommodate suction unit to be installed on the right side of the vehicle.

- Electrical Wiring:
  All electrical wiring of ambulatory compartment should be of wiring harness system with no joint and taping having all connector system and having a separate fuse box for each operation. All wires should be of 10mm, 8mm and 6mm size and should be of fire retardant material. There should be a separate maintenance-free battery of 40 amps for ambulatory compartment, which is to be charged through the vehicle generator. There should be a 220 volts inlet and outlet sockets for outside source of 220 volts. One 220-volt inverter will be provider for continues suppliers of 220 for charging of various medical equipment.

- Main Automatic Loading Stretcher:
  Main stretcher automatic loading type made of aluminium alloy/stainless steel frame with 4+2 loading wheels and adjustable head section. The mattress should be 2’ thick with best quality foam, upholstered with best quality washable PVC coated Rexene with pillow with two safety belts and two side guards. Approx. Size 6’ 3” x 1’ 9” (L x W) with 3’ Ht. in standing position and 1’ Ht. in collapsible position. Locking system for stretcher at front and right side of the stretcher and S.S. sheet on the floor under his stretcher. Detachable IV rod with the stretcher. • One Folding Stretch Four Fold: Bedding area made of very strong water proof PVC coated washable orange parachute cloth and special carrying bag made of Parachute and structure made of 11/4” round lightweight aluminium alloy.

- Spine Board:
  Spine board that reduces the possibility of contamination during transportation of the patient. High-density completely recyclable polyethylene, moulded into a unique, one-piece shell; this technique guarantees the B-back. The exclusive Spencer Contour head immobilizer has been studied to assure the optimum head immobilization of traumatized patients.

- Four Persons Bench:
  Made of single piece F/G material make of 3’ special preformed polyurethane foam with minimum 16” width, made over a storage box open-able in two parts. Seat cover of best quality artificial leather and seat belts. Back of the bench should be cushioned.
  - One side bar made of 1” MS pipe chrome plated / powder coated.
  - One person crew seat revolving, fixed to the body of the vehicle with seat belt at the head end of patient with best quality artificial leather / fabric.

- Medical Cabinet:
  Made of high quality non-staining scratch resistant, rust proof, water proof fiber glass and ABS material. All front doors & Drawers having double side finished with self-lockable latch type handles made of plastic material. All doors having selfclosable imported surface hinges. Cabinet having four sections.

- Oxygen Section:
  To accommodate two M.F size O2 cylinders, should have double steel brackets with rubber padding. The door having plexi glass window, an internal light with a door switch to be provided Floor of cabinet matted with vinyl flooring.

- Disposable Section:
  Disposable section having 3 to 4 shelves for various disposables.

- Drawers Section:
  Having 5 to 7 drawers (depending upon the size of vehicle) All drawers made of S/S sheet material. All drawers having special self-closing & self-retaining catcher railing which is not self opened during rush driving.
• Wash Basin Section:
  This section having special moulded wash basin with tap, having a water reservoir of 18 to 20
  Litres capacity, water is dispensable through an electrical pump operated through a foot switch at
  the cabinet door. Top of the cabinet having rounded edges & corners One soap dispenser & one
  toilet roll holder to be provided.
• Oxygen Supply System:
  Brand new MF (48 cu ft.) two imported oxygen cylinders duly tested and filled by the Govt.
  approved company with electronic Low oxygen alarm, changeover system and high pressure
  piping made of imported flexible material and brass sockets and connectors. The pressure
  regulator of cylinder should be imported. Oxygen would be delivered through two outlets with one
  flow meter and mask.
• One Portable Aluminium Oxygen Cylinder having capacity 2.2 litres with flow meter in carrying
  bag.
• Optional Equipment:
  • Suction Unit.
  • Pulse Oximeter.
  • Defibrillator.
  • Transport Ventilator.
  • Spot Lamp.
  • Spot Lamp with flexible neck for patient examination.
  • Back Flood Light.
  • Back Search Light, adequate internal lighting for handling the patients at night.
  • Torch and Emergency Light.
  • Rechargeable (portable torch and emergency light).
  • Hooks for intravenous infusion set will be placed on both sides.
• Fire Extinguishers:
  2 Kg Halotron in driver compartment and 6 Kg dry chemical powder type fixed with bracket to the
  side-wall.
• Ice Box: Plastic 02 litres.
• Frosted Glass:
  Window Glass of patient compartment, 2/3 frosted with high quality opaque imported vinyl sticker.
• One BP Apparatus with wall mounted large dial type 5/6” imported with one stethoscope.
• FIRST AID BAG:
  Made of very strong water proof PVC coated washable red parachute cloth. With “ENGRO”
  printed on it:
  Designed to store the following items: Ambo Bag Adult (01), airway, splints (2), Crepe Bandage
  (4”=01 6”=01), N/Saline 0.9% (01), Pyodine Solution (01), Dressing Scissor (01), Pyodine powder
  (01), 4X4 Gauze Pad (04) and Sticking (01).
• Resuscitation Kit:
  One Resuscitation Hard Carrying Case with following items:-
  • Ambo Bag adult and paed size.
  • Hand operated manual suction apparatus.
  • Laryngoscope with four curved blades.
  • Endotracheal tubes of all sizes.
  • Stethoscope. (01).
  • Professional torch.
  • Airways assorted sizes (1 set).
  • Disposable gloves (04).
  • Contaminant bags (04).
  • Mouth gag/opener (01).
  • Thermometer Flat type (02).
  • Chest Extrication Device (01)
  • Syringe cutter.
  • Stethoscope. (01)
  • Tongue depressor (disposable) (one box).
  • Hammer with rubber ends for examination.
  • Philadelphia Collar.
  • Ampoule Cutter.
  • Trash box:
    Stainless steel with 10 litres capacity, attached to the floor and with plastic removable and
    washable inner lining.
• Rescue Equipment: Safety Belt"(02)," Safety harness (2); Fire Axe (01), Rope 10 meter, Crow
Bars (02), Emergency Search Light (Rechargeable), Leather Gloves (06)
- Red Crescent Sign on Four Sides/ Monogram.
- Red Crescent Sign and word AMBULANCE on front and rear sides. With name and Monogram of institution and phone number on right and left side in red reflective vinyl stickers of imported panel a category.
- External & Internal lights & Warning devices.
- Standard flasher type (imported) horizontal red & blue emergency light / LED Flash Light size 1200 mm with siren/hooter system at least 150 watt output. All room lights (LED) sufficient for working & patient handling will be provided.
- Additional Items.
- Reflective vest and jackets (04).
- Reflective Tri-angle / Emergency signboards.
- Portable (Halotran).
- Four helmets and fireman axe.
- Provision for installation of two ways VHF communication system.
- Fabricated on latest model Toyota/Nissan/Mazda/Mercedes/Volkswagen/Mitsubishi vehicle.

### Cabinet Drug Floor Standing Glass Door / Shelves
- Large storage capacity on 12 adjustable shelves, each size 435 x 250mm.
- The cupboard to have an internal height of 1720mm.
- Security achieved by 2 heavy-duty locks, securing on the central partition.

NB. Whilst this cabinet offers very effective security, it does not fully comply with the ‘Misuse of Drugs Regulations’ and should not be used for the storage of controlled drugs unless within a pharmacy additional security.

Visitor Chair
- Chair in solid Sheesham wood framing and inner framing.
- Including upholstery in fabric.
- Cushioning and finishing wood surface in polish.
- Complete in every respect.

Wheel Chair Large
Made of seamless chrome plated steel tubing (18gauge)
- Wheels, rear, Chrome-plated rims, with opush rims/had ralls for self propulsion
- Solid rubber tires, 610mm (24” dia meter)
- Front swivel coasters, rubber-tired with heavy duty bearings. Single hand break
- Push handles with non slip rubber/plastic grips
- Foot rest, folding, of caste of aluminum
- Folding seat and back of strong and washable material.

Waste Baskets
- Pedal operated bin made of steel finished in white.
- The inner 12L capacity liner to be of plastic and to have its own carrying handle.

Plastic Dustbin
Ordinary plastic basket capacity 3 litres.

Garbage Container with Wheel (Iron)

Waste Container (Iron)

Garbage Drum with Wheel

Digital Photocopier Machine
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed at least 22 &amp; 35 CPM</td>
<td></td>
</tr>
<tr>
<td>Digital Sorter(s)</td>
<td></td>
</tr>
<tr>
<td>Laser Printing Built-in</td>
<td></td>
</tr>
<tr>
<td>Paper Supply at least 2 trays @500 sheets (bypass tray)</td>
<td></td>
</tr>
<tr>
<td>Copy Memory Minimum 256MB/32MB Page Memory</td>
<td></td>
</tr>
<tr>
<td>Resolution Minimum 600 x 600 dpi</td>
<td></td>
</tr>
<tr>
<td>Paper Tray Size at A-6, A-3 other</td>
<td></td>
</tr>
<tr>
<td>Zoom Minimum 25% - 400%</td>
<td></td>
</tr>
<tr>
<td>ADF (Automatic Documents Feeder)</td>
<td></td>
</tr>
<tr>
<td>Scanning (Black &amp; White)</td>
<td></td>
</tr>
<tr>
<td>Photocopier Machine Trolley</td>
<td></td>
</tr>
<tr>
<td>Service Agreement 03 Years</td>
<td></td>
</tr>
<tr>
<td>Warranty/Guaranty of at least one year with replacement of defective parts</td>
<td></td>
</tr>
</tbody>
</table>

Electronic Walk Through Gate

Key Features
- Accurate Detection of magnetic, non-magnetic and mixed-alloy metal weapons
- Wide range of threat detection from guns to ½ cutter blade
- High Discrimination and Throughput
- Exceptional Immunity to external interferences
- High precision bidirectional counter with automatic rescreening compensation (option)
- Random alarm capability programmable from 0% to 100% (option)
- Powered by safe low voltage DC
- Standard Interfaces: RS-232, Infrared
- Other available interfaces: Ethernet, USB

**Quality**
- Continuous self diagnostic system
- Proven reliability
- No periodic re-calibration and preventive maintenance required
- No scheduled maintenance
- Fully digital design

**Walk-Through Gate Structure**
- State-of-the-art, robust and washable panels
- Protected against aging, weather and wear

**Central Control Unit**
- Ergonomic and robust design
- High visibility alphanumeric display and programming keyboard
- Made of advanced plastics or stainless steel and anti-vandalism construction (option)
- Access to the front panel protected by hardware key and two levels of passwords

**Alarm Signalling**

**Visual Signals**
- Multi-zone display bar for "height on person" localization
- 2 light bars with selectable entry/exit and pacing indication
- Green and red metering signals proportional to the mass of the detected target

**Audio Signals**
- 10 selectable continuous and pulsed tones
- 10 selectable sound intensities ranging from 0 to 90 dbA at 1m

**Type Of Signalling**

**Visual**
- Fixed or proportional to the mass in transit - visible from 6m under lighting of 4000lux.

**Visual Zone Indication**
- 2, 4, 8 or 20 independent zones selectable

**Programming**
- Remote via RS-232, Infrared Remote Control Unit or Ethernet 10/100 base T interface

**Security Level**
- International Standard (IS) command
- Local by Control Unit alphanumeric display and keyboard
- Programming access protected by user and super-user passwords

**Operational Features**
- Quick reset time as short as 0.2 seconds for high throughput rate
- Very high detection speed (up to 50 ft/sec.)
- One-touch key reading of inbound, outbound and Security Level Data

**Installation Data**
- Automatic synchronisation between two or more metal detectors with distance of down to 5 cm without the use of external cables

---

**Hot Air Oven**
Capacity 40 or above.
Inner Chamber Stainless steel

**Dimensions**
455mmW x 605mmH x 455 mm D approx
Outer chamber steel with white enamel
No. of shelves-3 (adjustable) stainless steel

**Time**
5-120minutes

**Temp.**
50degC to 250degC + 1degC
Temp. control knob-graduate in centigrade
Digital indicator cum controller (electronic)
Switch to select high or low rates of heating
On/off switch with pilot lamp indicator
Operation at 220V AC

**Note:** Copy of Service Manual & Operator Manual
### Sucker Machine (Mobile Suction Pump Reciprocating Type)
- Heavy duty mobile suction unit with twin jars of capacity upto 4 or 5 litre each.
- Reciprocating type Min 1/6 Hp of Motor, aspiration rate upto 40-45 litres/minutes at 650-900mm Hg.
- Vacuum continuously adjustable, (10) bacterial filter, bottles autoclavable and explosion proof footswitch, with complete aspiration set.
- Overflow safety device, 220V/50Hz. 1 phase.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>44.</td>
<td>Sucker Machine</td>
<td></td>
<td>USA/JAPAN/EUROPE</td>
</tr>
</tbody>
</table>

### Bed Sheets
- Size 66 x 108 Blue waved border with monogram

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>45.</td>
<td>Blanket 60 x 86 with Silk Piping (Fine Quality)</td>
<td>250</td>
<td>Local</td>
</tr>
<tr>
<td>46.</td>
<td>Bed Sheets</td>
<td>500</td>
<td>Local</td>
</tr>
</tbody>
</table>

### Mattress Foam with Rexene Cover
- Size 4" (78" length x 36" width) with covering of superior dark brown imported/best quality local rexine suitable holes and zipped.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>47.</td>
<td>Mattress Foam</td>
<td>250</td>
<td>Local</td>
</tr>
<tr>
<td>48.</td>
<td>Pillow Foam with Cover</td>
<td>250</td>
<td>Local</td>
</tr>
<tr>
<td>49.</td>
<td>Towel 24 x 48</td>
<td>100</td>
<td>Local</td>
</tr>
</tbody>
</table>

### Apron
- Apron Lead Double Sided 35le 85cm L

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>50.</td>
<td>Apron</td>
<td>200</td>
<td>Local</td>
</tr>
</tbody>
</table>

### Blanket 60 x 86 with Silk Piping (Fine Quality)

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>51.</td>
<td>Draw Sheet 36 x 72</td>
<td>200</td>
<td>Local</td>
</tr>
<tr>
<td>52.</td>
<td>Operation Gown (Set) with Cap &amp; Mask</td>
<td>40</td>
<td>Local</td>
</tr>
<tr>
<td>53.</td>
<td>Duster 28&quot; x 28&quot;</td>
<td>100</td>
<td>Local</td>
</tr>
</tbody>
</table>

### Doctor Coat White (Best Quality)

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.</td>
<td>Iron Bed Fowler</td>
<td>200</td>
<td>Local</td>
</tr>
</tbody>
</table>

### Bed Side Locker
- Over All Size: 81" (L) x 36" (W) x 24" (H).
- Local: Subject to approval of sample.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.</td>
<td>Bed Side Locker</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Office Chair Wooden
- Structure/seat and back made of solid seasoned shisham wood.
- Finished with NC lacquer.
- Seat and back webbing with natural double cane.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>57.</td>
<td>Office Chair Wooden</td>
<td>100</td>
<td>Local</td>
</tr>
</tbody>
</table>
### Office Table Wooden

**Size:** 1600 x 800 x 760 mm(H)

Top made of high density chipboard pressed with one side formica and other side veneer. Structure made of 25/25mm mild steel square pipe. Finished with NC Silver painting with one drawer box, consist of 3 drawer, top drawer lockable with through back.

**Price:** 2000

**Location:** Local

### Steel Almirah 1½ x 3 x 6

**Price:** 30

**Location:** Local

### Iron Stool

- Stool with 16 gauge stainless steel structure and seat of diameter 300mm.
- Height adjustable by simple spun mechanism.
- Height adjustment not less than 53cm to 68cm.
- Mounted on five 5cm swivel castors.

**Price:** 30

**Location:** Local

### Bench Wooden Three Seater

**Size:** 1500 x 360 x 450mm(H)

Structure made of 25/25mm mild steel square pipe.

Finished with NC silver paint.

Seat strips made of solid seasoned shisham wood

Finished with NC lacquer

**Price:** 200

**Location:** Local

### Office Rack Wooden

**Size:** 15 x 20 x 32

Finished with NC silver paint.

Seat strips made of solid seasoned shisham wood

Finished with NC lacquer

**Price:** 30

**Location:** Local

### Bench Steel / Alumenium Three Seats

**Frame**

The structure made with two rectangular tubes with section 2.25 x 13/16 x .08 inch cold rolled steel, united by crossbars and elements for attaching to the seats with .20 inch stamped steel plate. All steel parts should be coated with anti-corrosive epoxy paint.

**Seat**

Citizen modular seating molded in Appryl 3060 MN5 polypropylene with anti-static co-polymer. Seats available with upholstered seat and back cushions in a wide variety of vinyls and fabrics.

**Arms & Legs**

Legs for the 9000 model are made of cast aluminum and have an anodized finish. Legs for the 8000 model are cast iron, painted with epoxy with 100 micron thickness. Armrests are pressed steel with polyurethane coating for comfort and durability.

**Price:** 30

**Location:** Local

### Suction for Dental Unit (Dental Instruments for Surgical Extraction (Forceps) + for Filling etc.

**a. Suction for Dental Unit**

<table>
<thead>
<tr>
<th><strong>Electrical</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>230*</td>
</tr>
<tr>
<td>Frequency (Hz)</td>
<td>60</td>
</tr>
<tr>
<td>Phase</td>
<td>Single</td>
</tr>
<tr>
<td>Operating Current (Amps)</td>
<td>12.5 A</td>
</tr>
<tr>
<td>Starting Current (Amps)</td>
<td>70 A</td>
</tr>
<tr>
<td>Horsepower</td>
<td>3.0</td>
</tr>
<tr>
<td>Insulation Class</td>
<td>F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Pneumatic</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Vacuum (In Hg)</td>
<td>12</td>
</tr>
<tr>
<td>Vacuum Limiter Preset (In Hg)</td>
<td>10</td>
</tr>
<tr>
<td>Open Vacuum Air Flow (CFM)</td>
<td>100</td>
</tr>
<tr>
<td>Separation Tank Capacity (Working Fluid)</td>
<td>8 gallons</td>
</tr>
<tr>
<td>Tank Material</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Ambient Specifications</strong></th>
<th>USA</th>
<th>JAPAN</th>
<th>EUROPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>4.5 °C to 40 °C [40 °F to 104 °F]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative Humidity (Non-Condensing)</td>
<td>0 to 90 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td>Clean &amp; Dust Free</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Dimensions</strong></th>
<th>01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (In)</td>
<td>64</td>
</tr>
<tr>
<td>Diameter (In)</td>
<td>26</td>
</tr>
<tr>
<td>Weight (Lb)</td>
<td>225</td>
</tr>
</tbody>
</table>

**b. Instruments for Extraction**

**Forceps**

- Upper & lower full set.
### Lower third molar forceps (R & L)
- Cross Bar (Mesial & Distal)
- Straight Elevators (3 different size)
- Cryer Elevators (Mesial & Distal)
- Crane Pick Elevator (Mesial & Distal)
- Periosteal Elevator.
- Bon Cutter.
- Bone File.

### Elevators
- Cross Bar (Mesial & Distal)
- Straight Elevators (3 different size)
- Cryer Elevators (Mesial & Distal)
- Crane Pick Elevator (Mesial & Distal)
- Periosteal Elevator.
- Bon Cutter.
- Bone File.

### Filling Instruments
- Excavators.
- Plastic Instruments.
- Burnishes.
- Cordensors.
- Cement Spatula.
- Carver.
- Mirror.
- Tweezer.
- Probe.
- Amalgum Gun.
- Amalgamator.
- Materix Band (Ivory Type) with Retainer.

### Micromotor
- Integrated brushless micromotor with endo function
- 25% shorter and 30% less weight than the INTRA LUX KL702
- Integrated 25,000 LUX LED with a long service life
- Speed range
- 100 - 40,000 rpm in combination with the SMARTdrive motor control
- 2,000 - 40,000 rpm with normal motor control
- SMARTdrive optimised
- Controllable torque
- Sterilisable
- Pre-setting and control through control panel of the dentist element
- Precise control through foot control
- Indication-based torque setting
- No independent endo motor needed

### Hand Piece

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient Operating Temperature</td>
<td>10 to 40°C</td>
</tr>
<tr>
<td>Maximum Enclosure Temperature</td>
<td>55°C</td>
</tr>
<tr>
<td>Input Line Voltage</td>
<td>100 – 240 VAC, Grounded Circuit</td>
</tr>
<tr>
<td>Input Line Frequency</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td>Rated Power Consumption</td>
<td>70 Watts</td>
</tr>
<tr>
<td>Output Power</td>
<td>40 Watts max.</td>
</tr>
<tr>
<td>Output Frequency</td>
<td>13.56 MHz</td>
</tr>
<tr>
<td>Power Supply Dimensions w x d x h</td>
<td>12.1cm (4.8&quot;) x 12.1cm (4.8&quot;) x 22.2cm (8.8&quot;)</td>
</tr>
<tr>
<td>Certification / Marking</td>
<td>cNRTLus, CE</td>
</tr>
<tr>
<td>Tip-to-Ground Potential</td>
<td>&lt;2mV</td>
</tr>
<tr>
<td>Tip-to-Ground Resistance</td>
<td>&lt;2 ohms</td>
</tr>
<tr>
<td>Idle Temperature Stability</td>
<td>± 1.1°C in still air 13.56 MHz</td>
</tr>
<tr>
<td>Hand-piece Cable Length</td>
<td>L=183cm (72&quot;), burn proof, ESD safe</td>
</tr>
<tr>
<td>Hand-piece Connector</td>
<td>F connector 183 cm (72&quot;) SJT</td>
</tr>
<tr>
<td>Weight of the power supply</td>
<td>2.65 Kg (5.85 lbs)</td>
</tr>
</tbody>
</table>

### Orthopaedic Beds with Rolling Pulley
- Orthopaedic bed with mechanically operated back rest & knee rest by crank mechanism.
- Size: 2140 x 940 x 500 mm.
- Epoxy Coated frame work with beautiful ABS panels. 4 section perforated top.
- Balkan Frame (made of aluminium) with monkey bars and monkey chains.
- Collapsible side railings.
- Four swivel castor (all with individual brakes).
- Provision for I.V. Rod.
- Freight saving knock-down construction.
### Ultrasonic Wave Therapy Unit

#### Electrotherapy – Currents
- Interferential (isoplanar, dynamic, static, one-channel AMF)
- TENS (symmetric, asymmetric, alternating, Burst)
- TENS to spastic paralysis therapy
- Kotz/Russian stimulation
- Tonolysis
- Diadynamic (MF, DF, CP, CP-ISO, LP)
- Trabert pulse, Leduc, faradic
- Pulse – rectangular, triangular
- Unipolar sine surge
- Galvanic
- Microcurrents

#### Electrodiagnostics
- Electrodiagnostics with graphic presentation of I/t curve
- Automatic calculation of rheobase, chronaxie as well as threshold, coefficient and quotient of accommodation

#### Ultrasound Therapy
- 1 MHz, 1 cm² ultrasound head
- 1 MHz, 4 cm² ultrasound head
- Continuous emission – thermal effect
- Pulse emission – micro-massage
- Ultrasound heads provided with contact control connected to treatment timer
- Stabilization of output power

#### Electrophonophoresis
- 1 MHz, 4 cm² electrophonophoresis head
- Available currents: unipolar sine surge, pulse, diadynamic, galvanic
- Electrophonophoresis head provided with contact control connected to treatment timer
- Current flow monitoring.
- Focus of the influence of electric field and ultrasound wave in the area of medicine absorption.
- Deep penetration – up to 10 cm under the skin
- High concentration of medicine in treated area
- Acceleration of the medicine’s effect influenced by ultrasound wave

#### Manual Mode
Complete control over parameters for advanced users

#### Treatment Programs
- Simplification of the unit operation.
- Treatment programs chosen by name
- 237 preset treatment procedures
- 110 user-defined programs
- 80 favourite programs
- Naming individual user programs

#### Ergonomics
- Two independent treatment channels
- Operation mode: program/manual
- Easy-to-read display
- Operation in graphic mode
- Preset treatment program base
- Treatment programs chosen by name
- Treatment timer
- Electrodes test
- Statistics – the number of performed treatments
- Buzzer volume setting
- Precise control over the ultrasound wave emission during performed treatment
- Head sensitivity calibration
- Temporal loss of contact does not interrupt treatment procedure e.g. bone area

#### Structure
- Graphic LCD display
- Heavy-duty and reliable keyboard
- Modern design
- Operation in CC (stabilized output current) and CV (stabilized output voltage) modes.
- Complete galvanic isolation between channels in each mode
- Generation of unidirectional (unipolar) currents in interrupted mode
- Self-test – systematic control of the unit

---

68. USA
01 JAPAN
EUROPE
### Technical Specifications

- **Controller** – maximum constant current in patient’s circuit (CC mode)
  - Galvanic: 40 mA
  - Diadynamic, Pulse: 60 mA
  - Interferencial, Kotz’, unipolar sine surge: 100 mA
  - TENS: 140 mA
  - Tonolysis: 100 mA
  - Microcurrents: 1 000 μA
  - Maximum voltage in patient’s circuit (CV mode): 140 V
  - Max. ultrasound wave intensity: 3 W/cm²
  - Pulse frequency: 16 Hz, 48 Hz, 100 Hz
  - Duty cycle for pulse mode: 10 %, 25 %, 50 %, 75 %
  - Mains supply: 230 V, 50 Hz, 70 W, 100 VA
  - Weight Max.: 6 kg

### Warranty

- Etius U: 2 years
- Ultrasound head: 2 years
- Electrophonophoresis head: 2 years

### Standard Accessories

- Mains cable
- Patient lead (2 pcs.)
- Electrotherapy electrode 6x6 cm (4 pcs.); 7,5x9 cm (2 pcs.)
- Viscose electrode cover 6x6 cm (8 pcs.); 7,5x9 cm (4 pcs.)
- Velcro fixing belt 40x10 cm (2 pcs.); 100x10 cm (2 pcs.)
- 1 MHz, 4 cm² ultrasound head with holder
- Gel 0,5 l (1 pc.)
- Spare fuse T1 AL250 V (2 pcs.)
- User guide

### Optional Accessories

- Disposable self-adhesive electrodes 3x4 cm; 5,5x5,5 cm; 5,5x12,5 cm
- Point electrodes 5 mm, 10 mm, 15 mm, 20 mm
- Crocodile clip
- Sand-filled bag 21x14 cm, 21x28 cm
- Bag for the unit and accessories
- Elf, Elf X trolleys
- 1 MHz, 1 cm² ultrasound head with holder
- 1 MHz, 4 cm² electrophonophoresis head with holder
- Patient’s switch

### Infra Red Rays Lamp

- Infra red lamp, designed for intermediate use in a hospital ward or physiotherapy department.
- The lamp to provide an output of 300 watts, to be mounted on five anti-static castors and stable with a dampened counter balance for height adjustment.
- Rotation through 90 degrees in each direction is a requirement.

### Infra Red:

- Unit should be equipped with a microprocessor controlled with a treatment timer, adjustable radiation power and digital display showing set light intensity and remaining treatment time.

### Technical Specification:

- Radiation Intensity Adjustment: 10 – 100% in 10% steps
- Treatment Timer: 1 – 30 min

### Program Modes:

- User Define Programs: 10
- User Define Sequences: 04
- Power supply: 220VAC/50Hz

### Electro Stimulator Diagnosis/Therapy

- Unit to be well designed with an easy to read control panel.
- All parameters to be displayed clearly in digital form to eliminate risk.
- To have a built in micro processor to monitor and control all functions, to carry out a self test programme each time the unit is switched on.
- Unit to offer low frequency electrotherapy and 9 types of current for various treatments.
- These currents to be: Galvanic surge, Rectangular pulsed, 2-5 current according to Trabert Triangular pulsed current

<table>
<thead>
<tr>
<th>MF - Monophase fixe</th>
<th>DF - Diaphase fixe</th>
<th>LP - Longues Periodes</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>01</th>
<th>USA</th>
<th>JAPAN</th>
<th>EUROPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>USA</td>
<td>JAPAN</td>
<td>EUROPE</td>
</tr>
</tbody>
</table>

17/39
**CP - Cours Periode**

- Facilities to include continually adjustable pulse duration, faradic surge and timer with automatic switch off and alarm.

---

**Quadriiceps Chair**

Quadriiceps Chair enables exercise in a sitting position as well as exercise in a reclining position. The adjustability of the seat and back, facilitate a comfortable and stable position. The unit plied with 10 weights of 0.5 Kg and 1 weight of 5 Kg also includes straps for upper trunk and legs with back to back fastening.

Chair designed table with two adjustable swinging arms with removable weights, and can be used on either side of the table for both limbs, it also enables the Patients to exercise in sitting and in reclining position.

Dimensions: Height 125 cm, Width 60 cm, Length 70 cm

---

**Wheels & Exercise Pullis**

**Shoulder Wheel**

For shoulder and hand exercise, made of painted steel frame and chromium plated/ SS sliding parts. The wheel is to be fully adjustable for height and resistance and be able to accommodate all age groups and various stages of rehabilitation.

---

**Hot & Cold Packs**

Sizes of Soft Comfort Hot Cold Corpak:
- X-Small (3" x 5")
- Small (6" x 10")
- Large (10" x 13")
- Cervical (6" x 20")
- Tri-Sectional (9" x 16")

---

**Shortwave Diathermy**

Universal shortwave therapy unit pulsed and continuous shortwave therapy with high output and automatic tuning.

Continuous and pulsed shortwave therapy with 10 pulse repetition frequencies.

- Rectangular pulses
- Bar display for output intensity
- Generator frequency: 27.12 MHz
- Output power in Continuous mode. Max. 400W
- Pulse duration: Approx.400 micro sec.
- Pulse repetition frequency: 15-200 Hz adjustable in 10 steps.
- Timer: 0-30min. with acostic signal and automatic switch off.
- Multi directional articulated treatment arms with single knob fixation.
- Protection against accidental switching from pulsed to continuous mode.
- Power supply: 220V, 50-60 Hz.
- Safety class: 1 type BF according to IEC 601-1

Complete with standard accessories also includes the following:

- 2 Disc electrode 85mm
- 2 Flexible rubber electrode
- 2 Felt spacer
- Strap

The unit to be mobile with two detachable jointed electrode arms.

To have a patient safety cord which automatically switches off the machine and an audible timer alarm which also turns off the machine.

The following frequencies to be available: at 65 microseconds pulse width of 15, 25, 50, 100, 300, 400, 500 and 600 Hz and at 400 microseconds pulse width of 15, 25, 50, 100 and 200 Hz.

To be supplied with standard accessories:

- 2 electrode connection cables,
- 2 electrode cable clamps,
- 2 condenser electrodes 85 cms diameter,
### Cardiac Monitor

12" portable Cardiac Monitor  
Touch Screen Optional  
ECG, HR, NIBP, SPO2, RESP, 2-TEMP  
3/5 Lead ECG, 7 waveforms display  

**Features**
- Modular design with higher integration, more stable functions, and lower power consumption, easy to replace  
- 12 inch high definition color TFT display, touch screen optional  
- AC/DC available, suitable for ward bedside, ICU care and Operating Room  
- Standard six-parameter module: ECG, HR, NIBP, SpO2, RESP and TEMP  
- Arrhythmia analysis, ST segment analysis, drug concentration and titration table calculation  
- NIBP measurement using a double overpressure protection technology to prevent injury from high inflation pressure  
- 720 hours of trend data playback, 2 hours of waves playback, up to 1000 BP review, up to 200 alarm events review  
- 3-level intelligent alarms: sound, light and text alert, volume adjustable  
- Support wired networking, support mixed network connection  

**Technical Parameter**

#### ECG  
*Lead type:* 3/5 leads electric cable  
*Input:* 3 leads: RA, LA, LL (Lead method: I, II, III)  
5 leads: RA, LA, LL, RL, V (Lead method: I, II, III, aVR, aVL, aVF, V)  
*Heart rate range:* 15~300bpm (adult), 15~350bpm (child & neonate)  
*Accuracy:* ±1bpm or ±1%, whichever is bigger  
*ST detection:* Range: -2.0mV~+2.0mV, Accuracy: -0.8mV~+0.8mV  
*Arrhythmia analysis:* available  

#### NIBP (Noninvasive blood pressure)  
*Method:* Pulse wave oscillation  
*Operation mode:* Manual/Automatic/Continuous  
*Time interval (Automatic):* 1min, 2mins, 3mins, 4mins, 5mins, 10mins, 15mins, 30mins, 60mins, 90mins, 2hours, 3hours, 4hours, 8hours  
*Time interval (Continuous):* 5mins  
*Range:*  
- **Adult:** Systolic blood pressure: 40~280mmHg  
  Diastolic blood pressure: 10~220mmHg  
  Mean pressure: 20~240mmHg  
- **Child:** Systolic blood pressure: 40~220mmHg  
  Diastolic blood pressure: 10~160mmHg  
  Mean pressure: 20~170mmHg  
- **Neonate:** Systolic blood pressure: 40~135mmHg  
  Diastolic blood pressure: 10~100mmHg  
  Mean pressure: 20~110mmHg  

#### SpO2  
*Range:* 0~100%  
*Resolution:* 1%  
*Accuracy:* ±1% (70~100%), ±2% (40%~69%), not defined (<39%)  

#### Respiration  
*Method:* RA-LL impedance  
*Range of respiratory impedance:* 0.3~3Ω  
*Respiration rate:* 7~120BrPM (adult), 7~150BrPM (child & neonate)  

#### Temperature  
*Sensor type:* 10K series, 2.25K series  
*Channels:* dual channels  
*Range:* 0~50°C  
*Accuracy:* ±0.1°C  

### Cardiac Folding Beds  

### Function:  
- Hydraulic Hospital bed suitable for use in Intensive/Coronary Care Units  

### Feature:  
- Adult Intensive Care bed with head and foot panels.  
- Height adjustment with foot pedals on both sides of the bed.  
- Two way tilt, instantly, with any angle secured by a failsafe friction lock, and a special stop lever
- to hold the horizontal.
- Trendelenburg / anitrendilenburg position.
- Radiolucent backrest is gas spring assisted with controls on both sides, facilitates use of the C arm imaging.
- Usable X-ray area L27 x W29" approx.
- 5" castors, foot operated bow brake, locks three castors and provides easy steering.
- Mattress with internal hinge and standard nylon proof cover.
- Safe working load 180kg.

**Technical Data:**
- Length External 86.5" Width 36"
- Height to mattress platform 16.5 to 31"
- 5" castors with anti static tyres
- Mattress 79" x 33.25" x 5"

**Accessories:**
- Bed fitting Patient Lifting Pole
- Collapsible / Removable Side Rails Pair
- I.V Rod
- Removable Head and Foot End
- CPR Board

<table>
<thead>
<tr>
<th>Oxygen Cylinder (240CFT) with Trolley/Regulator/Gauge</th>
<th>77.</th>
<th>12</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand new and Empty Colour Coded Medical Oxygen angled Type.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valve Nominal Oxygen Gas Capacity 240CFT with Regulator.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stand for Cylinder.</td>
<td></td>
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<tr>
<td>Cylinder to be certified by regulatory authority.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Oxygen Cylinder (48CFT) With Trolley/Regulator/Gauge</th>
<th>78.</th>
<th>12</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand new and Empty Colour Coded Medical Oxygen angled Type.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valve Nominal Oxygen Gas Capacity 48 CFT with Regulator.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stand for Cylinder.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cylinder to be certified by regulatory authority.</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Oxygen Gauge (China)</th>
<th>79.</th>
<th>24</th>
<th>China</th>
</tr>
</thead>
</table>

**Echo-Cardiography Machine 3 Probe**

Digital Echocardiography unit for wide range of premium performance application of cardiovascular imaging in pediatrics and adult. Mobile built in trolley system with built in workstation / data management system for digital acquisition, storage and review of complete ultrasound studies including static and dynamic clips in DICOM format, read/write zoom. Studies can be reviewed and output to CD / DVD/ MOD. The machine must have sharp and high quality image reproduction with heavy duty performance. It should have minimum following specification :

**DISPLAY:** Displays size Min.17 to 19" or more Flat/TFT, tilt able and swivel able type with system height adjustable.

**OPERATING MODES:** B, 2D M-Mode, Power Doppler, Spectral Doppler, Color Doppler, Velocity Mode, Pw Doppler, Duplex And Triplex Doppler, CW Doppler Steerable and ECG Gating, IMT, Tissue Doppler Imaging, M Mode, Stress Echo Software

**CONTROL PANEL:** Alphanumeric keyboard with built-in trackball and touch control panel. Direct access to system functions through dedicated keys. Indicator lights identify activated keys. Audio volume control with bidirectional / stereo speakers and foot switch. User selectable image magnification control. Adjustable transmit focusing control. Total Gain Compensation controls (8 or more). 3 Active Probe connectors

**CALIPER/MEASUREMENS:** 6 to 8 calipers for measurement per screen trace length measurements
for: Distance, angle, distance depth from skin line, area, circumferences, compound / volume, slope, time, heart rate and acceleration, Auto Ejection Fraction Measurements.
APPLICATION: Cardiac, Peripheral, pediatric, adult cephalic with all required software for measurements.
OPERATING MODES: 2D Mode, color M-Mode, continuous wave Doppler, pulse wave Doppler, Directional Doppler, Power Doppler
DISPLAY MODES: Live and stored display format: full size and split screen. Review image format: for still and cine, simultaneous capability B+PW, B+ CFM +PW, CW, B+ or triplex mode, , B+ color split screen display.
2D mode, M-mode, color Doppler imaging, color Doppler imaging, color m-mode, PW / CW Doppler, , IMT, Stress Echo, Tissue Doppler Imaging, Panoramic Imaging, Vascular imaging , vascular calculations, cardiac measurements and full cardiac imaging.
CINE MEMORY: Min. Cine Memory for 8000 frames or 250mb min.
IMAGE VIEWING DEPTH: 2 – 30 cm or more for cardiac application
IMAGING MODES / TECHNIQUES:
Tissue harmonic Imaging, Power Doppler Imaging,
Vascular imaging software for carotids
STORAGE DEVICE: Built-in HDD 500 GB, CD or DVD and USB Drives.
SYSTEM DYNAMIC RANGE: Dynamic range minimum 200 dB or more
COMMUNICATION SOFTWARE: System should upgradable for DICOM 3 communication software for:
Image Storage, print, Query / Retrieve, Network Communication.
Probes: Should be light weight, capable of multiple centre frequencies on transmit for 2D, color Doppler PW/CW (Steerable) Imaging and to perform Harmonics.
PORTS: Video Output, USB / LAN ,Networking
POWER REQUIREMENT: 220-240VAC 50 Hz
STANDARD TRANSDUCERS:
Linear Probe multi frequency to cover frequency of 5.0-14.0 MHz.
Multi frequency Phased array sector probe to cover 2.0 - 3.0MHz for Adult
Multi frequency Phased array sector probe to cover 4.0 - 7.0 MHz for Peads.
ACCESSORIES:
1. Thermal Printer 256-Gray scale
2. UPS: 2 KVA (imported)
3. 20 High Density / High Glossy thermal paper Rolls
4. Gel: 20 liters
5. Colour Laser Jet Printer latest model
FUTURE UPGRADES:
The unit should have the capability for up gradation of future software (shall be provided free of cost within the warranty period).

<table>
<thead>
<tr>
<th>Deffibrillator</th>
<th>Semi automatic defibrillator with CRT monitor.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full manual override and external pacing.</td>
</tr>
<tr>
<td></td>
<td>Pre-connect electrodes for defibrillation, monitoring and pacing.</td>
</tr>
<tr>
<td></td>
<td>Separate 3 lead ECG monitoring cable.</td>
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<tr>
<td></td>
<td>AC mains option and charging and/or remote 4 bay battery charger/auto tester.</td>
</tr>
<tr>
<td></td>
<td>High quality strip recorder with full summary.</td>
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<tr>
<td></td>
<td>Integral digital ECG recording</td>
</tr>
<tr>
<td></td>
<td>Adult and child paddles.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>THREE CHANNELS ECG MACHINE (RECHARGEABLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three Channel.</td>
</tr>
<tr>
<td>Three Channel ECG Machine for 12 lead ECG recording.</td>
</tr>
<tr>
<td>Operating features and characteristics.</td>
</tr>
<tr>
<td>Automatic Operation.</td>
</tr>
<tr>
<td>Thermal print head.</td>
</tr>
<tr>
<td>Standard 3 channels with ECG paper in roll, charge magazine or Z-fold form.</td>
</tr>
<tr>
<td>Recording trace speed 25 and 50 mm/sec.</td>
</tr>
<tr>
<td>Muscle artifact and AC (50 Hz) interference filters.</td>
</tr>
<tr>
<td>Defibrillator protection.</td>
</tr>
<tr>
<td>Parameters</td>
</tr>
<tr>
<td>Waveform 12 lead ECG Trace.</td>
</tr>
<tr>
<td>Lead selection lead I, II &amp; III aVR, aVL &amp; aVF, V1, V2, V3, V4, V5 &amp; V6.</td>
</tr>
<tr>
<td>Variable gain ½, 1, 2 cm/mV.</td>
</tr>
<tr>
<td>Other Features</td>
</tr>
<tr>
<td>Complete with standard accessories, including patient cable with re-usable electrodes.</td>
</tr>
</tbody>
</table>
### Card (Local with imported wheels having two lockable).
Automatic ECG interpretation, analysis and reporting.
12 lead simultaneous ECG acquisition.

**Operating Requirement**
AC 220V/50 Hz.
Built in battery and charger for at least 60 minutes operation.

<table>
<thead>
<tr>
<th>X-Ray Machine 50-KW / 500-MA with Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computerized Radiography Machine unit</td>
</tr>
<tr>
<td>Microprocessor based.</td>
</tr>
<tr>
<td>High frequency, 50KW X-Ray generator. 500 mA at 100 kv</td>
</tr>
<tr>
<td>Anatomical programmed radiography. Digital display of all set parameters.</td>
</tr>
<tr>
<td>Rotating anode x-ray tube, with dual focus 0.6 &amp; 1/1.5 mm. Anode heat storage capacity of at least 250 KHU or more Electronic timer with exposure time of 1msec.</td>
</tr>
<tr>
<td>System with AEC facility.</td>
</tr>
</tbody>
</table>

33. Ceiling mounted with three directional movements Capable of lateral radiography.
4-way floating table Chest stands with Bucky.
Complete with grid 8:1 ratio.
Automatic over-load protection device and automatic line compensation.
X-ray Automatic Processor
X-ray caste with screen 12x15 20Nos
X-ray caste with screen 10x12 20 Nos
X-ray caste with screen 8x10 20 Nos
3-phase, 380 V, 50 Hz.

<table>
<thead>
<tr>
<th>X-Ray Automatic Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing machine for X-ray films from 13x18 cm. 18x24 cm.24x30 cm.30x40cm.35.6x35.6 cm. 35x43cm.</td>
</tr>
<tr>
<td>Capacity at least 60 films per hour</td>
</tr>
<tr>
<td>Standard Equipment: Processor + Set of 3 Replenish Bottles</td>
</tr>
<tr>
<td>Accessories: Water supply connection with shut-off valve, Filter, Light-tight Cover, Processor Stand</td>
</tr>
<tr>
<td>Automatic stand-by mode.</td>
</tr>
<tr>
<td>Automatic film detection</td>
</tr>
<tr>
<td>Power Requirements : 220 VAC ±10 % 50 Hz .</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>X-Ray Caste with Screen 12 x 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-Ray Caste with Screen 10 x 12</td>
</tr>
<tr>
<td>X-Ray Caste with Screen 8 x 10</td>
</tr>
</tbody>
</table>

**Computerized Radiography Machine Unit**
a) Image recording system (cassettes & reading plates)
b) Image reading system (reader/ digitizer)
c) Identification & CR processing workstation.
d) Dry imager.

1. **Image recording system (cassettes & imaging plates).**
The following sizes of radiography cassettes along with image plates should be supported by the unit.
   a. 35 cm X 43 cm or 14” X 17”: 6 nos.
   b. 24 cm X 30 cm or 10” X 12”: 6 nos.

2. **Image reader (CR reader/ digitizer)**
a) The CR reader / digitizer should be able to process 65 image plates/hr or more of the largest size cassette
b) CR reader / digitizer must be able to handle phosphor image plates. CR reader capable of handling latest Dual side /needle/structured/columnar image plates will be preferred.
c) It should have a resolution of 6 pixels/mm (minimum) for standard resolution cassettes & 10 pixel / mm (minimum) for high resolution cassette reading.
d) Digitiser must have a resolution of 20 pixel / mm (minimum) for screening mammography.
e) Gray scale resolution: CR reader / digitizer should have a minimum resolution of 12bits/ pixel for images sent to CR processing station.

3. **Identification Station & processing server**
a) The processing station must have 2GB RAM, at least 2x 500 GB HDD in RAID configuration and 19
inch clinical grade monitor. The PC hardware and monitors must be from reputed brands like DELL, HP, and BARCO etc. The monitor should have a wide viewing angle and it should be clinical grade monitor with at least 1.3 MP resolution.
b) Processing server capable of identification of patient demographics to the acquired images will be preferred, else a separate identification station must be provided.
c) The server and /or ID station must be DMWL (DICOM modality worklist) compliant to access patient and study data from HIS or RIS.
d) It should provide display of acquired images with greater details of demographics viz. patient/ study listing for easy access.
e) The server must provide full amount of post processing features viz. geometric corrections, window level algorithms, annotation like markers, predefined text, drawing lines and geometrical shapes, multi-scale image processing, measuring distance and angles, shuttering, histograms, zoom, grey scale reversal, edge enhancement, noise reduction, indication of gray scale saturation level, latitude reduction etc.
f) It should facilitate full fledged DICOM printing and should be able to print multiple formats of patient study.
g) Should be able to send DICOM images to DICOM workstation or PACS without loss of information
h) Should be equipped with DICOM CD writer for transferring image
i) Should be able to store image on external device viz. D or pen drive etc.
j) The system should have a facility to indicate over/under exposure in the preview screen. kindly specify the image preview time.
k) The software must have dedicated paediatric and mammography image processing.

4. Dry imager
a) The system must have a dry imager without need of any wet chemistry
b) It must be DICOM 3.0 compatible allowing multiple modalities to be connected at a time
c) The system must be able to print at least 60 films/ hr of the largest size
d) The system must deliver its first film within 80 seconds from the request sent
e) The imager must have spatial resolution of 500 ppi minimum
f) The system must have contrast resolution of 14 bits/pixel or more. The system must have at least three online film sizes and should be capable of printing any of the 8” X 10”, 10” X 12”, 14” X 14” or 14” X 17” films.
g) The imager should support daylight loading of films.
5. Suitable UPS with built-in battery, back up must be provided for 15 minutes backup for the whole system.
6. The firm should attach detailed installation list along with users’ complete address and telephone number.
7. Additional specialty software/hardware if any should be quoted separately as optional.

<table>
<thead>
<tr>
<th>Gray Scale Ultrasound Machine with Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. System Frequency Capability: 3 MHz to 9 MHz</td>
</tr>
<tr>
<td>2. Convex Probe: Multi Frequency with centre frequency between 3-5 MHz</td>
</tr>
<tr>
<td>3. Modes: B, M &amp; combination thereof capable of dual image (Split Screen) in B Mode</td>
</tr>
<tr>
<td>4. M Mode Sweep: 8 speed or more</td>
</tr>
<tr>
<td>5. Gray Scale: 256 minimum</td>
</tr>
<tr>
<td>6. Sensitivity Time Gain: Near &amp; far gain control/5 steps or more</td>
</tr>
<tr>
<td>7. Depth: 22 cm minimum</td>
</tr>
<tr>
<td>8. Focusing System: 4 steps or more/dynamic</td>
</tr>
<tr>
<td>10. Freeze Unit: Built in</td>
</tr>
<tr>
<td>11. Post Processing: Image Inversion, Edge/Echo Enhancement Correlation/Persistence</td>
</tr>
<tr>
<td>12. Calipers: Two or more for calculation of length, area, volume, circumference etc</td>
</tr>
<tr>
<td>13. Table Calculations: Capable of fetal age calculations</td>
</tr>
<tr>
<td>14. Image Memory: 512 x 512 x 8 bit (for each image), 64 images or more</td>
</tr>
<tr>
<td>15. Monitor: At least 10” CRT or more</td>
</tr>
<tr>
<td>16. Operating Voltage: 220V AC 50Hz</td>
</tr>
<tr>
<td>17. Safety &amp; Quality Standard: IEC &amp; FDA or CE (MDD) or JIS</td>
</tr>
<tr>
<td>18. Connector: At least two probe connector.</td>
</tr>
<tr>
<td>19. Linear Probe: Soft tissue high frequency linear 7 – 10 MHz probe.</td>
</tr>
</tbody>
</table>

Accessories
1. Thermal Printer 256 Grey Scales
2. Local trolley with imported lockable wheels.
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>3</td>
<td>UPS with built-in batteries: On line 1KW (imported)</td>
</tr>
<tr>
<td>4</td>
<td>High Density Thermal Paper: 12 Rolls</td>
</tr>
<tr>
<td>5</td>
<td>Gel: 10 Litres</td>
</tr>
<tr>
<td>6</td>
<td>Dust Cover for Machine &amp; Probe 01</td>
</tr>
</tbody>
</table>

**Fine Automatic Pippets Adjustable**
- 05 - 20µL
- 10 - 50µL
- 20 - 100µL

**ESR Stand Stainless Steel**
- For Small Test Tubes (Small Sized Holes)
- For Large Test Tubes (Large Sized Holes)

**Selectra Automated Chemistry Analyzer**

**Features**
- Fully automated clinical chemistry analyzer
- Up to 266 photometric and electrolyte tests / hour - Broad test menu
- Best-in-class operator interface
- Productivity and error-reducing capabilities
- Automated reagent management
- Annual ProActive Maintenance Kit

**Specifications**

**Throughput**
Up to 266 photometric and electrolyte tests/hour.

**Reagent System**
32 refrigerated reagent positions for 10 mL, 25 mL and 50 mL reagent bottle.
Cooled to 10°C +/- 4°C at normal laboratory conditions
All reagent positions can be assigned as R1, R2 and R3.

**Sample System**
50 barcode readable positions 12 auxiliary positions.
All positions fit 13x75 mm primary and secondary tubes and pediatric cups.
All positions can be used for calibrators, controls, normal, pediatric and STAT samples.

**Pipetting System**
1000 µL reagent syringe:
- R1 volume 110-400 µL
- R2 volume 0-180 µL
- R3 volume 0-180 µL
- Programmable in 1 µL steps

100 µL Sample Syringe:
- Sample volume 1-30 µL
- Programmable in 0.1 µL steps
Programmable dilution ratios 1:5 up to 1:200 in one step increments with 3 possible diluents Pre-heated probe with level detection, collision protection and integrated mixer.

**Cuvette Rotor**
Cost effective, semi-disposable cuvette rotor with 48 cuvettes
Up to 10,000 tests per rotor
Typical reagent consumption 220 µL per test
Measurement temperature 37°C, controlled by Peltier elements.

**Light Source**
Quartz-iodine lamp 12V-20W.

**Wavelength Range**
Optical unit with 8 position filter wheel
340, 405, 505, 546, 578, 620, 660, 700 nm standard wavelengths
Other wavelengths available on request

**Photometric Range**
-0.1 to 3.0 Absorbance
Resolution 0.001 Abs.
Analytical Modes (Single, Dual and Triple reagent system)
Kinetic measurement with linearity check
Mono- and bichromatic end point measurement with or without bichromatic reagent blank and/or sample blank correction
Two point measurement; with or without slope blank
Graphic plot of all measuring points
| Predilution and automatic reflex dilution as needed |
| Non-linear calibration curves |
| Prozone check for immunology tests |
| Cut-off declaration |
| Calculated tests. |

**Quality Control**
- Up to 15 controls can be defined, 3 per test
- Westgard or Basic QC rules
- Levey-Jennings plots
- Quality control statistics.

**Standards & Regulations**
- CE – IVD, CB, FDA, UL

**Environmental Conditions**
- **Temperature:** 15 – 32 °C (59 – 90 °F)
- **Humidity:** 15 – 85% RH
- **Altitude:** up to 2000 m
- **Plumbing:** No dedicated water or drain required

**Electrical**
- **Voltage:** 100 – 240 Vac
- **Frequency:** 50 – 60 Hz
- **Power (max):** 380 VA

**Integrated PC**
- Touch screen navigation
- Operating system: Windows™ Embedded.

Training of Consultant/HOD/Pathologist/Senior Technician at the cost of company (at least 15-days).

**Options**
- **Barcode Reader**
  - Hand held CCD barcode reader used for reagent identification and automated programming of assays, controls, and calibrators. Dry ISE Module
  - Patented Solid State Electrode Technology
  - Indirect measurement
  - Dilution 1:14
  - Measures Sodium, Potassium, Chloride and CO2

- **Printer**
  - Positive Sample Identification
  - Positive Sample Identification (PSID) reads all popular barcodes.

- **ProActive Maintenance Kit**
  - Complete parts kit for annual preventive maintenance.

---

94. **Centrifuge Machine**
- Centrifuge to be bench top unit allowing the operator to programme up to 9 often used programmes into the memory.
- To have a choice of three acceleration speeds, with an average
- Spin taking 5 to 10 minutes. To concentrate the cells within a 6mm circle and present the cells in a monolayer with excellent cell morphology and minimum cell loss.
- Unit to hold 12 samples and to automatically lock the lid until
- The rotors have stopped completely.
- To be supplied with an autoclavable sealed head, 12 slide clips, 12 sample chambers, 1 pack of filter cards, a box of suitable slides, a box of suitable disposable funnels and a users manual.
- Power requirements approx 150 VA single phase.

95. **PCR Unit**
- **Real Time PCR Machine**
  - Minimum 4 Channel Optics with Precalibrated Dyes.
  - Thirty Six Minimum Samples Capacity.
  - Should Accept Individual Tubes, Strips or Plates Reaction Volume upto 50uL.
  - Capable of Performing Melt Curve Analysis.
  - LEDs as Excitation Source, Photodiodes/PMTs/CCD for Detection.
  - Independents of Reference Dye.
  - Mechanism to Remove Bubbles in Reaction Tubes/Mini Centrifuge.
  - Cooling Rack for Reaction Tubes & Reagent Vials.
  - Branded Computer with Minimum Core i3 Processor.
  - Laser Printer/LCD/Keyboard/Mouse.

| 01 | Imported |
| 01 | USA JAPAN EUROPE |
- Online UPS Branded with Dry Batteries, 3.0 KVA with 2 Hours Backup.
- Foreign Training of Consultant/HOD/Pathologist at the cost of company.
- With 5 Years Warranty, Service/Parts.

**Mini Centrifuge**
- Angle Rotor for 24 x 2.0 mL Single Row.
- Aluminium/Steel/Alloy Rotor.
- With Lid Locking & Holding, Imbalance Notification.
- Maximum Speed 14000-16000 RPM.
- Digital Control of Speed/Time, RPM/RCF.
- With 5 Years Warranty, Service/Parts.

**Thermal Shaker**
- Shaker Incubator for 2.0ml Tubes.
- Temperature Range 10-100C.
- Minimum Sample Capacity 24.
- With 5 Years Warranty, Service/Parts.

**Vortex Mixer**
- Touch & Continous Mixing.
- With 5 Years Warranty, Service/Parts.

**PCR Work Station**
- Imported Workstation with UV & Flourescent Light.
- 3 x 2.5 Feet.
- With 5 Years Warranty, Service/Parts.

**Pipettes**
- 0.1-10ul.
- 10-100ul.
- 100-1000ul.
- Eppendorf/Gilson/Pippettean.

**Freezers**
- Upright Freezers – 30 C.
- 300 Liters/11 Cubic Feet.
- With Servo Motor Stabilizer.
- With 5 Years Warranty, Service/Parts.

**Tube Racks**
- Tubes Racks for PCR Process.
- 96 x 2.0 m

**Semi Automated Chemistry Analyzer**
- **Light source:** Quartz Halogen Lamp 12 V – 20 W.
- **Type:** Semi Automatic Single Beam Filter Photometer
- **Input:** Keyboard for directs function and alphanumerik entry. Optional external Keyboard.
- **System:** Freely programmable against all commercially available chemistries.
- **Display:** High contrast graphical LCD display.
- **Operational Temperature:** Automatic adjustable according to test method.
- **Wavelength Selection:** Automatic 12 positions filter wheel with standard interference filters 340, 405, 505, 546, 578 & 620 nm.
- **Replications:** Multiple testing with up to nine replicates.
- **Calibration:** Automatic calibration on up to 10 standards for non-linear mode.
- **Flow Cell Volume:** Minimum 25 ul.
- **Sipping Volume:** Minimum 250 ul.
- **Pump Type:** Internal latest pump of bellow type driven by stepper motor.
- **Memory:** Minimum 100 tests
- **Printer:** Inbuilt Printer
- **Mean:** SD & CV
- **Lewy Genning Plot.**
- **Computer Compatibility:** RS 232 interface for 2 way communication with personal computer.
- **Lamp Protection:** For life time.
- **Power Supply:** 220

**Computer, LCD 17, with all Accessories (Dell / Intel) + UPS, Battery + Printer Hp-Laser Jet-1020**

<table>
<thead>
<tr>
<th>Form Factor</th>
<th>Tower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Intel Core i3 , 3240 3rd Generations 3.4 GHZ Processor 3MB cache, 1333MHz/1600 MHz ) or Better</td>
</tr>
<tr>
<td>L2 Cache</td>
<td>3MB cache, 1600MHz /1333 MHzFSB or Better</td>
</tr>
<tr>
<td>Hard Disk</td>
<td>500GB SATA 3.0Gb/s 7,200rpm Hard Disk</td>
</tr>
<tr>
<td>Serial –ATA</td>
<td>4 serial-ATA Interfaces</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>4GB DDR3 (1066 MHz/1033 MHz) upgradeable up to 8 GB or better</td>
</tr>
<tr>
<td><strong>Network Interface</strong></td>
<td>Ethernet – Integrated</td>
</tr>
<tr>
<td><strong>Network Speed</strong></td>
<td>10Mbps, 100Mbps, 1000Mbps Fast Ethernet Adapter</td>
</tr>
<tr>
<td><strong>Graphics Type</strong></td>
<td>2D / 3D Graphics with integrated 512 MB or Better</td>
</tr>
<tr>
<td><strong>Video Memory</strong></td>
<td>Intel Graphics Media Accelerator 3100</td>
</tr>
<tr>
<td><strong>Sound</strong></td>
<td>Integrated High Definition audio with 600w Speaker set</td>
</tr>
<tr>
<td><strong>Expansion Bays</strong></td>
<td>(2) 3.5” internal bays</td>
</tr>
<tr>
<td><strong>Optical Drive</strong></td>
<td>16X Internal DVD Writer or better</td>
</tr>
<tr>
<td><strong>Readers</strong></td>
<td>16GB USB Pen Drive</td>
</tr>
<tr>
<td><strong>Key Board</strong></td>
<td>USB Keyboard</td>
</tr>
<tr>
<td><strong>Mouse</strong></td>
<td>USB Optical Scroll Mouse with pad</td>
</tr>
<tr>
<td><strong>LCD</strong></td>
<td>17” with all accessories</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>1024 x 768 or better</td>
</tr>
<tr>
<td><strong>Slots total free and type</strong></td>
<td>1 full-height PCI slots, 1 full height PCI Express x1 slot, 1 full height PCI Express x16 slot</td>
</tr>
<tr>
<td><strong>I/O Ports</strong></td>
<td>1 Parallel, 1 Serial, 1 Rear Port, 8 USB 2.0 (2 Front and 6 Rear) Ports</td>
</tr>
<tr>
<td><strong>Expansion Ports</strong></td>
<td>External microphone, External Display, Keyboard, Line in, Line out, Mouse, RJ-45</td>
</tr>
<tr>
<td><strong>Operating System</strong></td>
<td>Windows 7 with Down grade to Genuine windows XP Professional with Original User Licenses (32 bit)</td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
<td>Three years comprehensive warranty</td>
</tr>
<tr>
<td><strong>Manuals &amp; CDs</strong></td>
<td>Original Manual and Installation and Drivers CD for Each Desktop Computer</td>
</tr>
<tr>
<td><strong>UPS</strong></td>
<td><strong>Power Rating</strong> 750VA</td>
</tr>
<tr>
<td></td>
<td><strong>Type</strong> Sine Wave</td>
</tr>
<tr>
<td></td>
<td><strong>Input Supply</strong> 180V to 250V, Single Phase, 50Hz/60Hz</td>
</tr>
<tr>
<td></td>
<td><strong>Output Supply</strong></td>
</tr>
<tr>
<td></td>
<td>• Voltage: 230V</td>
</tr>
<tr>
<td></td>
<td>• Frequency: 50Hz</td>
</tr>
<tr>
<td></td>
<td>• Wave Form: True Sine Wave</td>
</tr>
<tr>
<td></td>
<td>• Less than 5%</td>
</tr>
<tr>
<td></td>
<td><strong>Backup Time</strong>: 4-16 minutes fully typical computer load.</td>
</tr>
<tr>
<td></td>
<td><strong>Recharge Type</strong>: 3 to 6 hours after fully discharged.</td>
</tr>
<tr>
<td></td>
<td><strong>Battery Type</strong>: Replaceable maintenance free built-in battery system</td>
</tr>
<tr>
<td></td>
<td><strong>Number of Sockets</strong> 04 Minimum</td>
</tr>
<tr>
<td></td>
<td><strong>Protection</strong> Overload, Over/Under Voltage, Battery Low</td>
</tr>
<tr>
<td></td>
<td><strong>Surge Energy Rating</strong> 340 Joules</td>
</tr>
<tr>
<td></td>
<td><strong>Noise</strong> Noise less than 55 DBA</td>
</tr>
<tr>
<td></td>
<td><strong>Indicator</strong></td>
</tr>
<tr>
<td></td>
<td>• Visuals: Line input, Overload, Inverter on/off, Battery Low</td>
</tr>
<tr>
<td></td>
<td>• Audible Battery in use, Overload, Battery Low</td>
</tr>
<tr>
<td></td>
<td><strong>Warranty</strong> Minimum two year including batteries</td>
</tr>
<tr>
<td></td>
<td><strong>Interface Port(s)</strong> DB-9 RS-232, USB, Smart Slot</td>
</tr>
</tbody>
</table>

**Printer**
HP Laser Jet-1020 with all necessary accessories, driver, cable, etc.

**Computer Table with Chair**

<table>
<thead>
<tr>
<th><strong>Table</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Computer Table Class 1 Laminated MDF</td>
</tr>
<tr>
<td>• Table 1200mm x 750mm</td>
</tr>
<tr>
<td>• With sliding rail fixed separable drawers</td>
</tr>
<tr>
<td>• CPU Cabinet,</td>
</tr>
<tr>
<td>• Complete in every respect</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Chair</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Receptionist chair with cushioned seat and back,</td>
</tr>
<tr>
<td>• Upholstery in fabric.</td>
</tr>
<tr>
<td>• Including swivel action pedestal base and back support in cast metal or ABS,</td>
</tr>
<tr>
<td>• Metal Finishing in approved baked enamel paint of approved color</td>
</tr>
<tr>
<td>• Including ball castors,</td>
</tr>
<tr>
<td>• Complete in every respect</td>
</tr>
</tbody>
</table>

| **Local** | 04 |
CHAPTER-I
GENERAL PROVISIONS

3. Scope and applicability:- Save as otherwise provided, these rules shall apply to all procurements made by all procuring agencies whether within or outside the Punjab.

4. Principles of procurements:- A procuring agency, while making any procurement, shall ensure that the procurement is made in a fair and transparent manner, the object of procurement brings value for money to the procuring agency and the procurement process is efficient and economical.

5. International commitments of the Government:- If any provision of these rules is in conflict with any obligation or commitment of the Government arising out of an international agreement with a state or states, or any international financial institution, the provisions of such international agreement, to the extent of conflict, shall prevail.

6. Language:- (1) Subject to sub-rule (2), all communication and documentation relating to procurements of the Government shall either be in Urdu or English or both.
(2) When any procurement is required to be made from any state outside Pakistan, the language of that state may also be used in addition to Urdu or English but the original documentation for purposes of record, even in that case, shall be in Urdu or English and the translation in such other language may be used for any other purpose.
(3) In case of conflict, the original documentation on record shall prevail.

7. Integrity pact:- Procurement exceeding the limit specified in the regulations shall be subject to an integrity pact between the procuring agency and a contractor.

CHAPTER-II
PROCUREMENT PLANNING

8. Procurement planning:- A procuring agency shall, within one month from the commencement of a financial year, devise annual planning for all proposed procurements with the object of realistically determining the requirements of the procuring agency, within its available resources, delivery time or completion date and benefits that are likely to accrue to the procuring agency in future.

9. Limitation on splitting of procurement:- Save as otherwise provided and subject to the regulations, a procuring agency shall announce in an appropriate manner all proposed procurements for each financial year and shall proceed accordingly without any splitting or regrouping of the procurements so planned.

10. Specifications:- (1) A procuring agency shall determine specifications in a manner to allow the widest possible competition which shall not favour any single contractor nor put others at a disadvantage.
(2) The specifications shall be generic and shall not include references to brand names, model numbers, catalogue numbers or similar other classifications but if the procuring agency is satisfied that the use of, or a reference to, a brand name or a catalogue number is essential to complete an otherwise incomplete specification, such use or reference shall be qualified with the words “or equivalent”.
(3) The provisions contained in sub-rules (1) and (2) shall not apply to any procurement made by a procuring agency which is a public sector commercial concern on the demand of a private sector client specifying, in writing, a particular brand, model or classification of equipment, machinery or other objects.

11. Approval mechanism:- All procuring agencies shall provide clear authorization and delegation of powers for different categories of procurement and shall initiate procurements after prior approval of the competent authority.

CHAPTER-III
ADVERTISEMENT

12. Method of advertisement:- (1) Subject to rule 59, a procuring agency shall advertise procurement of more than one hundred thousand rupees and up to the limit of two million rupees on the website of the Authority in the manner and format specified by regulations but if deemed in public interest, the procuring agency may also advertise the procurement in at least one national daily newspaper.
(2) Subject to rule 13, any procurement exceeding two million rupees shall be advertised on the website of the Authority, the website of the procuring agency, if any, and in at least two national daily newspapers of wide circulation, one in English and one in Urdu.
(4) A procuring agency shall ensure that the information posted on the website is complete for purposes for which it has been posted, and such information shall remain available on that website until the closing date for the submission of bids.

13. Exceptions:- The requirement of advertisement mentioned in rule 12, may be dispensed with after prior approval of the Authority in the following cases:
(a) The proposed procurement pertains to national security and its publication may jeopardize or compromise the objectives of national security; and
(b) The publication of advertisement or notice of the proposed procurement involves disclosure of information which is proprietary in nature or falls within the definition of intellectual property which is available from a single source.
14. Response time:- (1) The procuring agency may decide the response time for receipt of bids or proposals (including proposals for prequalification) from the date of publication of an advertisement or notice keeping in view the complexity of the procurement, availability and urgency but, in no circumstances, the response time shall be less than fifteen days for national competitive bidding and thirty days for international competitive bidding from the date of publication of advertisement or notice.

(2) All advertisements or notices shall expressly mention the response time allowed for the procurement along with the information for collection of bid documents which shall be issued till a given date, allowing sufficient time to complete and submit the bid by the closing date but the time limit shall not apply in case of an emergency procurement.

(3) The response time shall be calculated from the date of publication of the advertisement in a newspaper or on the website, whichever is later.

15. Framework Contract:- (1) A procuring agency may procure goods, services or works through framework contract in order to ensure uniformity in the procurement.

(2) The procuring agency shall adopt any of the methods of procurement mentioned in these rules for purposes of entering into a framework contract.

CHAPTER-IV
PREQUALIFICATION, QUALIFICATION AND DISQUALIFICATION

16. Prequalification:- (1) Subject to sub-rule (2), a procuring agency may, prior to floating the tenders or invitation to proposals or offers, engage in prequalification of bidders in case of services, civil works, turnkey projects and also in case of procurement of expensive and technically complex equipment to ensure that only technically and financially capable firms or persons having adequate managerial capacity are invited to submit bids.

(2) The procuring agency shall prequalify bidders under sub-rule (1) in case of procurement of goods of one hundred million rupees and above and large consultancy, except where a procuring agency, for reasons to be recorded in writing, dispenses with the requirement of prequalification of bidders.

(3) For purposes of the prequalification of bidders, a procuring agency shall take into consideration the following factors:

(a) qualifications;
(b) relevant experience and past performance;
(c) capabilities with respect to personnel, equipment, and plant;
(d) financial position;
(e) appropriate managerial capability; and
(f) any other factor that a procuring agency deems relevant, not being inconsistent with these rules.

(4) The procuring agency shall ensure that the prequalification is based on the capacity of the interested parties to satisfactorily perform the services or works.

(5) In case of fast track projects where the time is the essence or where potential consultants are limited or the assignment is of a complex nature, the procuring agency may, after recording reasons and with the approval of Provincial Development Working Party, invite a request for proposals through public notice under rule 12.

17. Prequalification process:- (1) The procuring agency engaging in prequalification shall announce, in the prequalification documents, all information required for prequalification including instructions for preparation and submission of the prequalification documents evaluation criteria, list of documentary evidence required by contractors to demonstrate their respective qualifications and any other information that the procuring agency deems necessary for prequalification.

(2) The procuring agency shall provide a set of prequalification documents to any contractor, on request and subject to payment of such price as the procuring agency may determine to defray the cost on account of printing and provision of the document.

(3) The procuring agency shall promptly inform the contractor who has applied for the prequalification whether or not he has been prequalified and shall, on request from the applicant who had applied for prequalification, a list of contractors who have been prequalified.

(4) On a request, the procuring agency shall communicate to the contractor who has not been prequalified the reasons for not prequalifying the contractor.

(5) Only the prequalified contractors shall be entitled to participate in the subsequent procurement proceedings.

18. Qualification:- A procuring agency, at any stage of the procurement proceedings, having credible reasons for, or prima facie evidence of, any defect in the capacity or otherwise of a contractor, whether or not prequalified, may require the contractor to provide such further information concerning the professional, technical, financial, legal or managerial competence as the procuring agency may decide.

19. Disqualification:- The procuring agency shall disqualify a contractor on the ground that he had provided false, fabricated or materially incorrect information.

20. Declaration of ineligibility:- (1) Subject to rule 21, the procuring agency may, after providing an opportunity of hearing, declare, through a notification, an applicant for prequalification as ineligible for participating in any public procurement process for such period as it may determine on account of his engaging, directly or through an agent, in corrupt or fraudulent practice.

(2) A copy of the notification shall be provided to the affected person and to the Authority.

21. Blacklisting:- (1) Every procuring agency shall specify a mechanism and manner for purposes of barring a contractor from participating in any procurement process of the procuring agency.

(2) Subject to sub-rule (3), if a procuring agency is satisfied that a contractor has acted in a manner detrimental to the public interest or good practices or has consistently failed to perform his obligation under the contract or his performance has not been up to mark or he is found indulging in corrupt or fraudulent practice, the procuring agency may, after affording him an opportunity of hearing
and through a notification, debar him from participating in any public procurement process of the procuring agency for such period as the procuring agency may determine in the light of the circumstances of the case.

(3) In case a procuring agency issues a notification under sub-rule (2), the procuring agency shall, for reasons to be recorded, inform the Authority to debar the contractor for procurement of all procuring agencies.

(4) Before passing any order on any such information under sub-rule (3), the Authority may call for such information or record from the procuring agency and, after affording the aggrieved person an opportunity of hearing, pass such orders as may be deemed necessary.

(5) Any person aggrieved by an order under sub-rule (2) may, within thirty days, file a representation before the Authority and the Authority may pass such orders on the representation as it may deem fit.

(6) Any person aggrieved by an order under sub-rule (4) may, within thirty days, file a representation before the Chairperson of the Board and the Chairperson may, after affording an opportunity of hearing to the aggrieved person, pass such orders on the representation as may be necessary.

CHAPTER-V
METHODS OF PROCUREMENT

22. Principal method of procurement:- Save as otherwise provided hereinafter, the procuring agencies shall use open competitive bidding as the principal method of procurement for the procurement of goods, services and works.

23. Open competitive bidding:- Subject to rules 24 to 38, the procuring agencies shall engage in open competitive bidding if the cost of procurement is more than the prescribed financial limit.

24. Submission of bids:- (1) A bidder shall submit a bid in a sealed package or packages in such manner that the contents of the bid are fully enclosed and cannot be known until duly opened.

(2) A procuring agency shall specify the manner and method of submission and receipt of bids in an unambiguous and clear manner in the bidding documents.

25. Bidding documents:- (1) A procuring agency shall formulate precise and unambiguous bidding documents that shall be made available to the bidders immediately after the publication of the invitation to bid.

(2) For competitive bidding, whether open or limited, the bidding documents shall include the following:

(a) invitation to bid;
(b) instructions to bidders;
(c) form of bid;
(d) form of contract;
(e) general or special conditions of contract;
(f) specifications and drawings or performance criteria (where applicable);
(g) list of goods or bill of quantities (where applicable);
(h) delivery time or completion schedule;
(i) qualification criteria (where applicable);
(j) bid evaluation criteria;
(k) format of all securities required (where applicable);
(l) details of standards (if any) that are to be used in assessing the quality of goods, works or services specified; and
(m) any other detail not inconsistent with these rules that the procuring agency may deem necessary.

(3) Any information that becomes necessary for bidding or for bid evaluation, after the invitation to bid or issue of the bidding documents to the prospective bidders, shall be provided in a timely manner and on equal opportunity basis.

(4) Where any change becomes essential in the procurement process, such change shall be made in a manner similar to that of the original advertisement.

(5) A procuring agency shall use standard bidding documents as and when notified under the regulations.

(6) Until the standard bidding documents are specified under the regulations, a procuring agency may use bidding documents already in use of the procuring agency to the extent they are not inconsistent with these rules.

(7) The procuring agency shall, on payment of such fee as the procuring agency may determine keeping in view the cost of printing and provision of the documents, provide a set of bidding documents to the prospective bidders.

26. Reservations and preference:- (1) A procuring agency shall allow all prospective bidders to participate in procuring procedure without regard to nationality except in cases in which any procuring agency decides to limit such participation to national bidders only or prohibit participation of bidders of some nationalities in accordance with the policy of the Government.

(2) A procuring agency shall allow for a preference to domestic or national contractor in accordance with the policies of the Government and the magnitude of price preference to be accorded shall be clearly mentioned in the bidding documents under the bid evaluation criteria.

27. Bid security:- The bidders will furnish a bid security five per cent of the bid price.

28. Bid Validity:- (1) A procuring agency, keeping in view the nature of the procurement, shall subject the bid to a bid validity period.

(2) The bids shall be valid for the period of sixty days (45+15) after opening of Technical Bids.

(3) Subject to sub-rule (5), a procuring agency shall ordinarily be under an obligation to process and evaluate the bids within the stipulated bid validity period but, under exceptional circumstances and for reasons to be recorded in writing, if an extension is considered necessary, all the bidders shall be requested to extend their respective bid validity period but such extension shall not be for more than the original period of bid validity.

(4) A bidder who:
(a) Agrees to the extension of the bid validity period shall also extend the validity of the bid bond or security for the extended period of the bid validity;
(b) Agrees to the procuring agency’s request for extension of bid validity period shall not be permitted to change the substance of the bid; and
(c) Does not agree to an extension of the bid validity period shall be allowed to withdraw the bid without forfeiture of the bid bond or security.
(5) The competent authority of the procuring agency shall not extend bid validity period without obtaining prior approval of the authority next above the competent authority and if the chief executive of an autonomous procuring agency is the competent authority then next higher authority in such a case shall be the board, syndicate or any other apex body of the procuring agency.

29. Extension of time for submission of bids: - If a procuring agency considers that it is necessary in public interest to extend the last date for the submission of the bids, it may, after recording reasons, do so in the manner similar to the original advertisement.

CHAPTER-VI
OPENING, EVALUATION AND REJECTION OF BIDS

30. Opening of bids: - (1) The date for opening of bids and the last date for the submission of bids shall be the same; and, bids shall be opened at the time specified in the bidding documents which shall not be less than thirty minutes after the closing time for the submission of the bids.
(2) All bids shall be opened publicly in the presence of the bidders or their representatives who may choose to be present, at the time and place announced prior to the bidding and the procuring agency shall read aloud the unit price as well as the bid amount and shall record the minutes of the bid opening.
(3) All bidders in attendance at the time of opening of the bids shall sign an attendance sheet.
(4) The bids submitted after the closing time prescribed shall be rejected and returned without being opened.

31. Evaluation criteria: - (1) A procuring agency shall formulate an appropriate evaluation criterion listing all the relevant information against which a bid is to be evaluated and such evaluation criteria shall form an integral part of the bidding documents.
(2) Failure to provide for an unambiguous evaluation criteria in the bidding documents shall amount to mis-procurement.

32. Evaluation of bids: - (1) All bids shall be evaluated in accordance with the evaluation criteria and other terms and conditions set forth in the prescribed bidding document.
(2) For purposes of comparison of the bids quoted in different currencies, the price shall be converted into a single currency specified in the bidding documents and the rate of exchange shall be the selling rate, prevailing on the date of opening of bids specified in the bidding documents, as notified by the State Bank of Pakistan on that day.
(3) A bid once opened in accordance with the prescribed procedure shall be subject to only those rules, regulations and policies that are in force at the time of issue of notice for invitation of bids.
### EVALUATION CRITERIA

#### PART-A

<table>
<thead>
<tr>
<th>S.#</th>
<th>Assessment for Eligibility</th>
<th>YES/NO</th>
<th>PAGE #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The bidder must possess valid authorization /agreement /sole agent (registration chamber of commerce and embassy verification concerned country) from the foreign principal/manufacturer or local firm/manufacture certification having being a manufacturer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The manufacture should have documentary evidence that they are the original manufacturer of the quoted product with indication of manufacturing site and its location i.e. country of origin.</td>
<td></td>
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</tr>
<tr>
<td>3</td>
<td>Mandatory warranty of the product as per terms &amp; conditions of the contract. Proof that the company is authorized to give warranty on behalf of principal to be provided.</td>
<td></td>
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<tr>
<td>4</td>
<td>Minimum one year business history from the date of authorization.</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>The bidder / manufacturer shall submit an affidavit on legal stamp paper Rs.20/- that:- 1. Their firm has not been blacklisted in the past on any ground by any Government (Federal. Provincial), a lock body or a public sector origination. 2. That maintenance of the equipment and replacement of defective parts under warranty shall be done.</td>
<td></td>
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</tr>
<tr>
<td>6</td>
<td>Acceptance of terms and condition, tender documents duly signed and stamped.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Company profile including engineering and managerial capability.</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>Price should not be mentioned on technical bid.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Bank statement/Balance sheet, National tax number and General Sale Tax number certificate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>List of products supplied to Government Hospital and Private Sector.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Literature / brochure of product.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Original receipt for the purchase of tender.</td>
<td></td>
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</tbody>
</table>
## ASSESSMENT PARAMETERS (BIDDERS)

### PART-B

<table>
<thead>
<tr>
<th>Sr.#</th>
<th>Assessment Parameters (Bidders)</th>
<th>10 (Max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>General (Attach supporting documents)</strong></td>
<td>50 Marks</td>
</tr>
<tr>
<td>2</td>
<td><strong>PRODUCT CERTIFICATION</strong></td>
<td>10 (Max)</td>
</tr>
<tr>
<td></td>
<td><strong>For foreign Products</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certificate FDA/CE/MDD/JIS</td>
<td>10 Marks</td>
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<tr>
<td></td>
<td>Any two certificates</td>
<td>10 Marks</td>
</tr>
<tr>
<td></td>
<td>Any one certificate</td>
<td>05 Marks</td>
</tr>
<tr>
<td></td>
<td>Please quote country of origin marks will be allocated after demonstration/sample examination, if required</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>For Local Product:</strong></td>
<td>10 (Max)</td>
</tr>
<tr>
<td></td>
<td>ISO (9001/2000)</td>
<td>10 Marks</td>
</tr>
<tr>
<td></td>
<td>ISO (14000)</td>
<td>07 Marks</td>
</tr>
<tr>
<td></td>
<td>Registration Chamber of Commerce</td>
<td>03 Marks</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Sr.#</th>
<th>Assessment Parameters (Bidders)</th>
<th>10 (Max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td><strong>Financial Soundness:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Income Tax and GST Paid</td>
<td>04 Marks</td>
</tr>
<tr>
<td></td>
<td>Balance sheet / Bank Statement</td>
<td>06 Marks</td>
</tr>
<tr>
<td></td>
<td>Tapering Down Phenomenon regarding rating of marks shall be applied on comparative firms.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><strong>Overall Experience in years in the International/National Market</strong></td>
<td>10 (Max)</td>
</tr>
<tr>
<td></td>
<td>With reference to the quoted product.</td>
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<tr>
<td></td>
<td>One number for each year.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td><strong>Past Performance:</strong></td>
<td>10 (Max)</td>
</tr>
<tr>
<td></td>
<td>Overall Reputation in reference to the Produce.</td>
<td></td>
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<tr>
<td></td>
<td>No. of references/certificates provided regarding performance of the product from the heads of concerned institute/hospital shall be verified by the department.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sr.#</th>
<th>Assessment Parameters (Bidders)</th>
<th>10 (Max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td><strong>Technical Engineering:</strong> (attach relevant documents / information)</td>
<td>50 Marks</td>
</tr>
<tr>
<td>7</td>
<td><strong>Permanent Staff</strong></td>
<td>10 (Max)</td>
</tr>
<tr>
<td></td>
<td>(i) Number of Technical / engineering Staff: (depends upon the nature and volume of the product) 2</td>
<td>05 Marks</td>
</tr>
<tr>
<td></td>
<td>One additional number for every additional member</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ii) Qualification of Related engineering Staff: (depends upon the nature and volume of the product)</td>
<td>10 (Max)</td>
</tr>
<tr>
<td></td>
<td>MSc/Master in engineering will be granted two additional number to every member</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Graduate Engineer / B-Tech (Hons) will be granted one additional number to every member.</td>
<td></td>
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<tr>
<td></td>
<td>DAE/B.Tech will not be granted additional marks.</td>
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<tr>
<td></td>
<td>(iii) Trainings</td>
<td>10 (Max)</td>
</tr>
<tr>
<td></td>
<td>Training on the quoted product (foreign &amp; Local)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foreign</td>
<td>06 Marks</td>
</tr>
<tr>
<td></td>
<td>Local</td>
<td>04 Marks</td>
</tr>
<tr>
<td>8</td>
<td><strong>Calibration/Repair Tools:</strong> (related to quoted item i.e repair workshop &amp; service agreement)</td>
<td>10 (Max)</td>
</tr>
<tr>
<td></td>
<td>• List of Major tools for testing and servicing/calibration</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td><strong>Inventory:</strong> (related to quoted item)</td>
<td>10 (Max)</td>
</tr>
<tr>
<td></td>
<td>List inventory of spare parts / machines</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL = 100 Marks**

**Note:-**

1. Acceptable bids must score minimum of 70% marks.
2. Zero mark will be awarded, if the technical specification not according to approved tender specification.
3. The verification of above information, the representative(s) may visit the premises of the firm.
4. False presentation of relevant documents will be considered as disqualification.
5. The purchase committee reserves the right to make any decision in the evaluation criteria which will not be challengeable in any court of Law.

33. Clarification of bids:- (1) No bidder shall be allowed to alter or modify his bid after the closing time for the submission of the bids.
(2) The procuring agency may, if necessary after the opening of the bids, seek and accept such clarifications of the bid as do not change the substance of the bid.
(3) Any request for clarification in the bid, made by the procuring agency and its response, shall invariably be in writing.

34. Discriminatory and difficult conditions:- Save as otherwise provided, no procuring agency shall introduce any condition, which discriminates between bidders or which is difficult to meet.

Explanation:- In ascertaining the discriminatory or difficult nature of any condition, reference shall be made to the ordinary practices of that trade, manufacturing, construction business or service to which that particular procurement is related.

35. Rejection of bids:- (1) The procuring agency may reject all bids or proposals at any time prior to the acceptance of a bid or proposal.
(2) The procuring agency shall upon request communicate to any bidder, the grounds for its rejection of all bids or proposals, but shall not be required to justify those grounds.
(3) The procuring agency shall incur no liability, solely by virtue of its invoking sub-rule (1) towards the bidders.
(4) The bidders shall be promptly informed about the rejection of the bids, if any.

36. Re-bidding:- If the procuring agency rejects all the bids under rule 35, it may proceed with the process of fresh bidding but before doing that it shall assess the reasons for rejection and may, if necessary, revise specifications, evaluation criteria or any other condition for bidders.

37. Announcement of evaluation reports:- A procuring agency shall announce the results of bid evaluation in the form of a report giving justification for acceptance or rejection of bids at least ten days prior to the award of procurement contract.

38. Procedures for selection of contractors:- (1) Save as otherwise provided in these rules, single stage one envelope bidding procedure shall ordinarily be the main open competitive bidding procedure used for the procurement of works and standard goods.
(2) Other appropriate procedures for selection of contractors other than consultants may be adopted in the following circumstances:
(a) Single stage two envelopes bidding procedure shall be used for procurement of such goods where the bids are to be evaluated on technical and financial grounds and the procedure for single stage two envelopes shall be:
(i) The bid shall be a single package consisting of two separate envelopes, containing separately the financial and the technical proposals;
(ii) The envelopes shall be marked as “Financial Proposal” and “Technical Proposal”;
(iii) In the first instance, the “Technical Proposal” shall be opened and the envelope marked as “Financial Proposal” shall be retained unopened in the custody of the procuring agency;
(iv) The procuring agency shall evaluate the technical proposal in the manner prescribed in advance, without reference to the price and shall reject any proposal which does not conform to the specified requirements;
(v) During the technical evaluation no amendments in the technical proposal shall be permitted;
(vi) After the evaluation and approval of the technical proposals, the procuring agency shall open the financial proposals of the technically accepted bids, publically at a time, date and venue announced and communicated to the bidders in advance, within the bid validity period;
(vii) The financial bids found technically non-responsive shall be returned un-opened to the respective bidders; and
(viii) The lowest evaluated bidder shall be awarded the contract;
(b) Two stage bidding procedure may be adopted in large and complex contracts where technically unequal proposals are likely to be encountered or where the procuring agency is aware of its options in the market but, for a given set of performance requirements, there are two or more equally acceptable technical solutions available to the procuring agency and the bidding procedure shall be:
First stage
(i) In the first instance, the bidders shall submit, according to the required specifications, a technical proposal without quoting price;
(ii) The technical proposal shall be evaluated in accordance with the specified evaluation criteria and may be discussed with the bidders regarding any deficiencies and unsatisfactory technical features;
(iii) After such discussions, all the bidders shall be permitted to revise their respective technical proposals to meet the requirements of the procuring agency;
(iv) The procuring agency may revise or modify any aspect of the technical requirements or evaluation criteria, or it may add new requirements or criteria not inconsistent with these rules but any revisions or modifications shall be communicated to all the bidders at the time of invitation to submit final bids, and sufficient time shall be allowed to the bidders to prepare their revised bids but such time shall not be less than fifteen days in the case of national competitive bidding and thirty days in case of international competitive bidding;
(v) The bidders unwilling to conform their respective bids to the procuring agency’s technical requirements may withdraw from the bidding without forfeiture of their bid security;
Second stage
(i) The bidders, whose technical proposals or bids have not been rejected and who are willing to conform their bids to the revised technical requirements of the procuring agency, may submit a revised technical proposal along with the financial proposal;
(ii) The fresh and revised technical proposals and the financial proposals shall be opened at a time, date and venue announced and communicated to the bidders in advance but in setting the date for the submission of the revised technical proposals and financial proposals, a procuring agency shall allow sufficient time to the bidders to incorporate the agreed changes in the technical proposal and prepare their financial proposals accordingly; and
(iii) The revised technical proposal and the financial proposal shall be evaluated in the manner prescribed above and the lowest evaluated bid shall be accepted;
(c) Two stage two envelope bidding method shall be used for procurement where alternative technical proposals are possible, such as certain types of machinery or equipment or manufacturing plant and the procedure shall be:
(i) The bid shall comprise a single package comprising two separate envelopes containing the financial proposal and the technical proposal;
(ii) The envelopes shall be marked as “Financial Proposal” and “Technical Proposal”;
(iii) In the first instance, the envelope marked “Technical Proposal” shall be opened and the envelope marked as “Financial Proposal” shall be retained unopened in the custody of the procuring agency;
(iv) The technical proposals shall be discussed with the bidders with reference to the procuring agency’s technical requirements;
(v) Those bidders willing to meet the requirements of the procuring agency shall be allowed to revise their technical proposals following these discussions; and
(vi) Bidders not willing to conform to the technical proposal as per revised requirements of the procuring agency shall be allowed to withdraw their respective bids without forfeiture of their bid security;
Second stage
(i) After agreement between the procuring agency and the bidders on the technical requirements, bidders who are willing to conform to the revised technical specifications and whose bids have not already been rejected shall submit a revised technical proposal and supplementary financial proposal, according to the technical requirement;
(ii) The revised technical proposal along with the original financial proposal and supplementary financial proposal shall be opened at a date, time and venue announced in advance by the procuring agency.
Provided that in setting the date for the submission of the revised technical proposals and supplementary price proposals a procuring agency shall allow sufficient time to the bidders to incorporate the agreed changes in the technical proposal and to prepare the required supplementary financial proposal; and
(iii) The procuring agency shall evaluate the whole proposal in accordance with the evaluation criteria and the lowest evaluated bid shall be accepted.

CHAPTER-VII
PROCUREMENT OF CONSULTANCY SERVICES

39. Rights and Obligations: - The rights and obligations of the procuring agency and the consultant are governed by general and special conditions of contract signed between the procuring agency and the consultant.
40. Consultant Selection Committee: - Every procuring agency, for the selection of consultant, except for short consultancies, shall set up a Consultant Selection Committee of odd number members, which shall consist of the following:
(a) Head of the procuring agency who shall be its chairperson.
(b) A nominee of the Planning and Development Department, a nominee of the Finance Department, as members; a representative of the procuring agency, as a member (secretary);
(c) The procuring agency may co-opt up to two members, having adequate technical knowledge and experience in the relevant field, for assistance in a given assignment that requires technical input.
41. Quorum: - Three members, including the chairman of the Consultant Selection Committee, shall form quorum for conducting the business of the Consultant Selection Committee.
42. Decision by simple majority: - All decision of the Consultant Selection Committee shall be made by majority of the members present and voting.
43. Functions and responsibilities of Committee: - The Consultant Selection Committee shall perform the following functions:
(a) Short listing of consultants, responding to the expression of interest, where applicable, in accordance with the criteria mentioned in the expression of interest; (b) Approval of request for proposal before issuance;
(c) Evaluation of technical and financial proposals, according to the selection method and evaluation criteria, mentioned in the request for proposal, and in accordance with the provisions of these rules; and
(d) Finalization of recommendation for selection of consultants based on evaluation criteria.
44. Selection of consultants: - Depending upon the selection method, the procuring agency shall include, among others, the following steps in the process of selection of a consultant:
(a) Preparation and approval of the terms of reference of the assignment;
(b) Preparation of the cost estimate or budget of the assignment;
(c) Public advertisement of invitation of consultants’ expressions of interest and their short-listing;
(d) Preparation and issuance of the request for proposal to the shortlisted consultants;
(e) Preparation and submission of proposals by the consultants;
(f) Evaluation of technical proposals; and
(g) Opening and evaluation of financial proposals.
45. Methods for selection of consultants.- (1) A procuring agency may utilize one of the methods mentioned in succeeding sub-rules for selection of a consultant.
(2) Least Cost Selection: This is the preferred method for selecting consultants for assignments of standard or routine nature such as audit, simple engineering design or supervision of noncomplex works, where the well-established practices and standards exist.
(3) Quality and Cost Based Selection: This method may be used where:
(a) Quality is the prime consideration while cost is a secondary consideration;
(b) Terms of Reference are well defined;
(c) The financial proposals of only those technically responsive bidders who obtained minimum sixty five percent marks shall be opened;
(d) A combined evaluation of the technical and financial proposals is carried out by weighting and adding the quality and the cost scores;
(e) The weight for quality is normally of eighty percent with twenty percent given to cost and more than twenty percent weight to the cost of the services is justified only in relatively routine and straightforward assignments (such as design of simple structures), whereas in no cases it should exceed thirty percent and the consultant obtaining the highest combined score is invited for negotiations;
(4) Quality Based Selection: This system may be used for highly specialized, innovative and complex assignments, where quality is the predominant factor.
(5) Subject to sub-rule (6), a procuring agency may, in a complex project and with the prior approval of the Government, engage, through direct contracting, an organization owned or controlled by the Government, the Federal Government or any other Provincial Government.
(6) In case of engagement of an organization under sub-rule (5), the procuring agency shall:
(a) Record reasons in writing for direct contracting and shall issue a certificate of reason-ability of the negotiated price of consultancy based on the principles of procurement contained in rule 4; and
(b) Obtain approval of the Authority to the extent of declaring the project as complex project.
(7) A procuring agency may, after recording reason in writing, use any method for selection of consultant other than least cost selection.

46. Selection process of individual consultant.- The following shall be the selection process of individual consultant:
(a) Individual consultant may not be required to submit proposals and shall be selected based on the qualifications and experience for the assignment;
(b) Individual consultant shall be selected by comparing the qualifications and experience of at least three consultants among those who have expressed interest in the assignment or have been approached directly by the procuring agency;
(c) Individual consultant considered for the comparison of qualifications and experience shall meet the minimum relevant qualifications, and the one selected to be employed by the procuring agency shall be the best qualified and shall be fully capable of carrying out the assignment;
(d) Individual consultant may be selected on a single-source basis (with due justification) in exceptional cases such as an emergency situation resulting from a natural disaster or where the individual is the only consultant qualified for the assignment;
(e) For key assignments, interviews may be set up, if required.

47. Expression of interest.- (1) A request for expression of interest shall be advertised in accordance with the provisions of rule 12 and rule 13.
(2) The expression of interest shall contain the following information:
(a) The name and address of procuring agency;
(b) An appropriate description of the assignment providing scope of the intellectual and professional services required;
(c) Closing date and place of the submission of the expression of interest;
(d) Criteria for short listing or prequalification where required; and
(e) Any other information that the procuring agency may deem appropriate to disseminate at this stage.

48. Request for proposals.- (1) A procuring agency shall use a request for proposal for seeking proposals from the shortlisted or pre-qualified consultants which shall include the following:
(a) Letter of invitation: the letter of invitation shall mention the name and address of the procuring agency and its intention to enter into a contract for provision of consulting services and contain names of all the short listed firms;
(b) Instruction to consultants: the instructions to consultants shall contain all necessary information that may help them prepare responsive proposals;
(c) Terms of reference: the terms of reference shall unambiguously define the objectives, goals and scope of the assignment, core team of required experts, expected deliverables with timelines and list of services necessary to carry out the assignment;
(d) Evaluation criteria: except as otherwise provided, the evaluation of proposals shall be carried out giving due consideration to quality and cost;
(e) Type of contract: a procuring agency, depending on the circumstances, may use one of the following types of contracts:
(i) Lump sum contract shall be used mainly for assignments in which the content, duration of the services and the required output are unambiguously defined;
(ii) Time based contract shall be used when it is difficult to define the scope and the length of services;
(iii) Hourly or daily rates shall be used for small projects, especially when the assignment is for less than a month; and
(iv) Any other, based on combination of the above and including out of pocket expenses, where required;
(f) Special provisions: a procuring agency may specify any other requirement related to the assignment or contract, where required.
(2) A procuring agency shall invite the prospective consultants to submit their technical and financial proposals in separately sealed envelopes and the procuring agency shall give deadline for submission of proposals but the consultants shall be given adequate time to prepare their proposals which shall not be less than two weeks.
49. Single complying proposal: If one complying bid is received, the procuring agency may award the contract to the bidder.

50. Evaluation of quality of consulting services: Evaluation criteria for technical evaluation of consultants shall include the following:
(a) Experience: the consultants specialized skills, working on the similar assignment and access to particular technologies related to the assignment;
(b) Financial capability: financial capability of the consultant may be evaluated with a view to ensuring that the consultant can complete the assigned task in a timely manner;
(c) Approach and methodology: The methodology proposed by the consultants shall be evaluated for its innovativeness and soundness;
(d) Quality management: the availability of a well-established quality management system may be taken into account for large and complex assignments; and
(e) Staff proposed: qualification and experience of the proposed staff of the consultant in the relevant field.

51. Association of consultants: (1) An association of consultants may take either the form of a joint venture or a sub-contract and such association may participate in procurement process with the permission of the procuring agency.
(2) Under a joint venture, all members, if awarded the contract, shall individually sign and be jointly and severally liable for the entire assignment and such an association may be known as a consortium, association or joint venture.

52. Intellectual property rights: (1) All documents, reports, designs, research work and all deliverables prepared by the consultant shall become and remain the property of the procuring agency.
(2) Any restrictions on the future use of these documents and software by the consultant shall be specified in the conditions of the contract.

53. Negotiations: (1) Notwithstanding the provision under rule 57, the procuring agency may negotiate with the highest ranked bidder for consultancy regarding methodology, work plan, staffing, contract price and special conditions of the contract.
(2) In case of failure of negotiations, the procuring agency may invite the next ranked bidder.
(3) A committee of the procuring agency shall negotiate with the consultant and negotiation by a single person on behalf of the procuring agency shall not be allowed.

54. Professional liability of consultant: (1) The consultant selected and awarded a contract shall be liable for consequence of errors or omissions on the part of the consultant.
(2) The extent of liability of the consultant shall form part of the contract and such liability shall not be less than remunerations nor it shall be more than twice the remunerations.
(3) The procuring agency may demand insurance on part of the consultant to cover the liability of the consultant and necessary costs shall be borne by the consultant.
(4) The consultant shall be held liable for all losses or damages suffered by the procuring agency on account of any misconduct by the consultant in performing the consulting services.

CHAPTER-VIII
ACCEPTANCE OF BIDS AND AWARD OF CONTRACTS

55. Acceptance of bids: Subject to these rules, the bidder with the lowest evaluated bid, if not in conflict with any other law, shall be awarded the procurement contract within the original or extended bid validity period.

56. Performance guarantee: Where needed and clearly expressed in the bidding documents, the procuring agency shall require the successful bidder to furnish a performance guarantee which shall not exceed ten percent of the contract amount.

Note: (1) The supplies shall be delivered within 60 to 75 days w.e.f the next date after the date of issue of Purchase Order (without penalty), and with prescribed penalty, as per following schedule of requirement:
Mode of Penalty Delivery Period Grace Period Total delivery period Without Penalty 60 days delivery period and 15 days grace period. Total delivery period 75 days.
(2) In case of late delivery of goods beyond the periods specified in the Schedule of Requirements, penalty @ 0.1% per day of the cost not exceeding 10% of the purchase order value for late delivered supply shall be imposed upon the Supplier.

57. Limitation on negotiations: (1) Save as otherwise provided in these rules, a procuring agency shall not negotiate with any of the bidders.
(2) In case of goods of highly technical nature, the procuring agency shall ensure that the bidders submit the revised financial bids immediately after opening of the financial bids in the same manner as the earlier financial bids were submitted and the procuring agency shall not allow extra time for submission of revised financial bids by the bidders.
(3) In this rule, the expression ‘goods of highly technical nature’ means all goods including machinery, its parts and micro-components, industrial, scientific or electronic equipment, plant and tools which are sophisticated in nature costing more than fifty million rupees and procured by adopting the two stages-two envelope procurement procedures.

Note: Warranty period will be for two years with free parts, installation & labour etc. In case of high tech/sophisticated equipments it will be five years.

58. Confidentiality: The procuring agency shall keep all information regarding the bid evaluation confidential until the time of the announcement of the evaluation report.

59. Alternative methods of procurements: A procuring agency may utilize the following alternative methods of procurement of goods, services and works:
(a) Petty purchases: a procuring agency may provide for petty purchases where the object of the procurement is below the financial limit of fifty thousand rupees and such procurement shall be exempted from the requirements of bidding or quotation of prices; the procuring agency shall, however, ensure that procurement of petty purchases is in conformity with the principles of procurement;

(b) Petty purchases through quotation: a procuring agency may provide for petty purchases through at least three quotations where the cost of the procurement is more than fifty thousand rupees but less than one hundred thousand rupees and such procurement shall be exempted from the requirements of bidding procedures; the procuring agency shall, however, ensure that such procurement is in conformity with the principles of procurement;

(c) Direct contracting: a procuring agency shall only engage in direct contracting if any of the following conditions exist:

(i) The procurement concerns the acquisition of spare parts or supplementary services from original manufacturer or supplier when the same are not available from alternative sources;

(ii) Only one manufacturer or supplier exists for the required procurement but in such a case, the procuring agency shall specify the appropriate fora which may authorize procurement of proprietary object after due diligence; and

(iii) Where a change of supplier may result in acquisition of material having different technical specifications or characteristics that may cause incompatibility or disproportionate technical difficulties in operation and maintenance; and the contract does not exceed three years in duration;

(iv) Repeat orders not exceeding fifteen percent of the original procurement;

(v) In case of an emergency but the procuring agency shall specify appropriate fora vested with necessary authority to declare an emergency;

(vi) When the price of goods, services or works is fixed by the Government or any other authority, agency or body under the law; and

(vii) For purchase of motor vehicle from local original manufacturers or their authorized agents at manufacturer’s price.

(d) Negotiated tendering: a procuring agency may engage in negotiated tendering with one or more contractors with or without prior publication of a procurement notification but this procedure shall only be used when:

(i) The supplies involved are manufactured purely for the purpose of supporting a specific piece of research or an experiment, a study or a particular development;

(ii) For technical or artistic reasons, or for reasons connected with protection of exclusive rights or intellectual property, the supplies may be manufactured or delivered only by a particular supplier;

(iii) For reasons of extreme urgency brought about by events unforeseeable by the procuring agency, the time limits laid down for open and limited bidding methods cannot be met, however, the circumstances invoked to justify extreme urgency must not be attributable to the procuring agency; and

(iv) The Provincial Cabinet, for reason to be recorded in writing, approves any specific procurement to be made on urgent basis and shall fix the time for such urgency.

60. Unsolicited Proposal:- In case of unsolicited proposal received for any engineering, procurement and construction project involving cost of one *thousand million rupees and above, the procuring agency shall process the proposal to ascertain its viability and after such process if the proposal is found viable, the procuring agency:

(a) Shall advertise the proposal for open competition without disclosing the name of the initiator of unsolicited proposal;

(b) Shall conduct prequalification process;

(c) Shall exempt the initiator of the unsolicited proposal from the prequalification;

(d) If no other bidder in response to the advertisement submits bid, the procuring agency may award the contract to the initiator of the proposal;

(e) In case of bidding competition, the initiator of the proposal shall be given first right of refusal if the initiator does not emerge as the lowest bidder; and

(f) Shall award five percent additional weightage to the initiator of the proposal from the combined score of technical and financial evaluation.

61. Exemption:- (1) The Government or the Board shall not exempt application of these rules for procurement of services.

(2) The Board may exempt application of these rules for procurement of goods from a public sector manufacturing unit through direct contracting involving procurement of five hundred thousand rupees or less.

(3) For all procurements beyond the prescribed or enhanced limit, the procuring agency shall give the first right of refusal to a public sector manufacturing unit participating in the bidding process or competition.

62. On account payments:- A procuring agency shall make prompt payments to the contractor against the invoice or running bill on satisfactory performance within the time given in the conditions of the contract which shall not exceed thirty days.

Note:- Bidders have to submit samples of local quoted items before the Technical Committee for approval

63. Commencement of procurement contract:- A procurement contract shall come into force:

(a) Where no formal signing of a contract is required, from the date the notice of the acceptance of the bid or purchase order has been given to the bidder whose bid has been accepted and such notice of acceptance or purchase order shall be issued within a reasonable time; or

(b) Where the procuring agency requires signing of a written contract, from the date on which the signatures of both the procuring agency and the successful bidder are affixed to the written contract and such affixing of signatures shall take place within a reasonable time; and

(c) Where the coming into force of a contract is contingent upon fulfillment of a certain condition or conditions, the contract shall take effect from the date whereon such fulfillment takes place.

64. Closing of Contract:- (1) Except for defect liability by the contractor, as specified in the conditions of contract, performance of the contract shall be deemed close on the issue of overall delivery certificate or taking over certificate which shall be issued within thirty days of final taking over of goods or receiving the deliverables or completion of works enabling the contractor to submit final bill.
(2) In case of defect liability, defect liability certificate shall be issued within thirty days of the expiry of the said period enabling the contractor to submit the final bill, except for unsettled claims, which shall be settled through resolution of dispute mechanism provided in the contract.

CHAPTER-IX
MAINTENANCE OF RECORD AND FREEDOM OF INFORMATION

65. Record of procurement:-(1) A procuring agency shall maintain a record of a procurement along with all associated documents for a minimum period of five years.
(2) Such maintenance of record shall be subject to the regulations framed in this regard from time to time.

66. Public access and transparency:-(1) As soon as a contract has been awarded, the procuring agency shall make all documents related to the evaluation of the bid and award of contract public.
(2) Where the disclosure of any information related to the award of a contract is of proprietary nature or where the procuring agency is convinced that such disclosure shall be against the public interest, it may withhold only such information from public disclosure subject to the prior approval of the Authority.

CHAPTER-X
REDRESSAL OF GRIEVANCES AND SETTLEMENT OF DISPUTES

67. Redressal of grievances by the procuring agency:-(1) The procuring agency shall constitute a committee comprising of odd number of persons, with proper powers and authorizations, to address the complaints of bidders that may occur prior to the entry into force of the procurement contract.
(2) Any bidder feeling aggrieved by any act of the procuring agency after the submission of his bid may lodge a written complaint concerning his grievances not later than ten days after the announcement of the bid evaluation report.
(3) The committee shall investigate and decide upon the complaint within fifteen days of the receipt of the complaint.
(4) Mere fact of lodging of a complaint shall not warrant suspension of the procurement process.

68. Arbitration:-(1) After coming into force of the procurement contract, disputes between the parties to the contract shall be settled through mediation or arbitration.
(2) The procuring agency shall provide for a method of mediation or arbitration or both in the procurement contract.

69. Mis-procurement: Any violation of these rules shall be treated as mis-procurement.

70. Repeal:- The Punjab Procurement Rules, 2009 issued vide notification No.MD(PPRA)2-1/2010 are hereby repealed.

EXECUTIVE DISTRICT OFFICER
(HEALTH) JHANG