



GOVERNMENT OF PAKISTAN
M/o National Health Services, Regulations & Coordination (NHSR&C)
ALLIED HEALTH PROFESSIONALS COUNCIL (AHPC)
Ex. PAKISTAN HEALTH RESEARCH COUNCIL. BUILDING
Shahrah-e-Jamhuriat. Off Constitution Avenue, Sector G-5/2, Islamabad



LISTS OF EQUIPMENT

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“A separate laboratory shall be required for each technology, in addition to the three basic laboratories.”

Note: Size for each last must be 20×40 square feet.

Basic Requirements of Skill Lab

..... Technology

Name of Institution: _____

Name of Teaching Hospital/s: _____

Program: BS Technology

Academic Year: _____

A. Skill Laboratory Infrastructure

1. Temperature Control / Air Conditioning	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
2. Ventilation & Lighting (Adequate)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
3. Uninterrupted Power Supply with Backup	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4. Water Supply & Wash Area	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
5. Fire Safety Measures Installed	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
6. Cleanliness & Hygiene Maintained	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
7. Emergency Exit Clearly Marked	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

B. Furniture & Basic Facilities

1. Student Work Area Adequate for Approved Intake	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
2. Chairs & Tables in Good Condition	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
3. Whiteboard / Smartboard Available	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4. Multimedia / Projector Functional	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
5. Storage Cupboards for Equipment	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
6. Crash Cart Available & Functional	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
7. Patient Trolley / Stretcher	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

I. Human Anatomy and Physiology Laboratory

S. No.	Item	Quantity Required (25 Students)	Remarks
1.	Full body Bone sets and Model of Movable shoulder in pieces	05	
2.	Model of Movable Hip	05	
3.	Model of Movable Knee	05	
4.	Model of Movable Ankle & Foot	05	
5.	Model of Movable Elbow	05	
6.	Model of Movable Wrist & Finger	05	
7.	Model of Movable Brain with Parts	05	
8.	Model of Movable Vertebral Column with Spinal Nerves	05	
9.	Model of Movable Human Skeleton Body Complete	05	
10.	Body Bones	10	
11.	Upper Limb (Anterior view)	10	
12.	Upper Limb (Posterior view)	10	
13.	Lower Limb (Anterior view)	10	
14.	Lower Limb (Posterior view)	10	
15.	Upper Limb Muscles Chart (Anterior view)	10	
16.	Upper Limb Muscles Chart (Posterior view)	10	
17.	Lower Limb Muscles Chart (Anterior view)	10	
18.	Lower Limb Muscles Chart (Posterior view)	10	
19.	Pelvis Chart	10	
20.	Skull Chart (Anterior View)	10	
21.	Skull Chart (Lateral View)	10	
22.	Brain Chart	10	
23.	Spinal Cord Chart	10	
24.	Arterial System Chart	10	
25.	Venous System Chart	10	
26.	Urinary System Chart	10	

27.	Reproductive System Chart	10	
28.	Nervous System Chart	10	
29.	Endocrine System Chart	10	
30.	Facility of Full human body Spotting / Identification	Mandatory	
31.	Microscopes	10	
32.	HB Meter (Sahli's)	10	
33.	ESR Stand	05	
34.	HCT Centrifuge	03	
35.	Haemocytometer	10	
36.	Stethoscopes	10	
37.	B.P Apparatus	10	
38.	Examination Couch	03	
39.	Spirometer	02	
40.	Kymograph	02	
41.	Tuning Fork	05	
42.	Stop Watch	10	
43.	Torch	10	
44.	Ishihara Test Chart	05	
45.	Vitolograph (Machine Compact)	01	
46.	Perimeter	05	
47.	Ophthalmoscope	05	
48.	Clinical Hammer	10	
49.	Thermometer	10	
50.	Oxygen Cylinder (Big, Small)	02	
51.	Ambu Bag	02	
52.	Tongue Depressor	05	
53.	Tourniquet	05	
54.	Tissue Forceps	05	
55.	ENT Set	01	
56.	Weight Machine	02	
57.	Power Lab System	01	
58.	Snellen's Chart	05	

59.	Electric Balance	01	
60.	Finger Pulse Oximeter	02	
61.	Stethograph (Optional)	01	
62.	Refrigerator	01	

II. Basic Science Laboratory

S. No.	Equipment	Quantity Required (25 Students)	Remarks
1	Centrifuge Machine	02	
2	CO2 Incubator	02	
3	Conductivity Meter	03	
4	Desiccator	03	
5	Digital Circulating Water Bath	03	
6	Distillation Flask	03	
7	Distillation Plant	01	
8	Electric Oven	01	
9	Flame Photo Meter	01	
10	Heating and Magnetic Stirrer (1-Plate)	01	
11	Heating and Magnetic Stirrer (4-Plate)	01	
12	Incubator	01	
13	Morton & Pestle	03	
14	Micropipette 1000 μ l	03	
15	Micropipette 100 μ l	03	
16	Micropipette 20 μ l	03	
17	Micropipette 5 μ l	03	
18	Microscope BK-1301	03	
19	Microscope M7003D	03	
20	Test Tube Stand Steel	03	
21	Test Tubes	30	
22	Top Load Balance	01	
23	Beaker 1000 ml	05	
24	Beaker 500 ml	05	
25	Beaker 200 ml	05	
26	Beaker 100 ml	05	
27	Cylinder 100 ml	05	
28	Cylinder 1000 ml	05	
29	Analytic Balance	01	

33	Spectrophotometer	01	
34	Colorimeters	03	
35	Centrifuge Machine Clinical	02	
36	Electric Weighing Balance	01	
37	Microscope MC 50	01	
38	Microscope MC 50/20	01	
39	Orbital Shaking Incubator	01	
40	Petri Dish	10	
41	Refrigerator	01	
42	Water Bath	01	
43	Pipette 1 ml	10	
44	Pipette 10 ml	10	
45	Pipette 25 ml	10	
46	Pipette 5 ml	10	
47	Polarimeter	01	
48	Reagent Bottle 250 ml	10	
49	Reagent Bottle 500 ml	10	
50	Reagent Bottle with dropper	10	
51	Separating Funnel	10	
52	Specific gravity bottle 25 ml	10	
53	Test Tube Holder	10	
54	Ultra low temperature Freezer	01	
55	Volumetric Flask 10 ml	10	
56	Volumetric Flask 250 ml	10	
57	Volumetric Flask 500 ml	10	
58	Burette	05	
59	Burette Stand	05	
60	Conical Flask 500 ml	05	
61	Cylinder 10 ml	05	
62	Cylinder 50 ml	05	
63	pH Meters	03	

III. First Aid Laboratory

S.No.	Equipment Name	Quantity Required (25 Students)	Remarks
1	Oxygen Cylinder with Gauge & Flow Meter	1	
2	Blood Pressure Set (BP Apparatus)	5	
3	Stethoscope	10	
4	Thermometer	5	
5	Pulse Oximeter	3	
6	Glucometer	2	
7	Torch	5	
8	Endotracheal Tube (ETT)	5	
9	Laryngoscope	2	
10	Guedel Airway (Oropharyngeal Airway)	5	
11	Nasopharyngeal Airway (NPA)	5	
12	Laryngeal Mask Airway (LMA)	3	
13	I-Gel Airway	3	
14	Ambu Bag (Bag Valve Mask)	3	
15	CPR Masks	10	
16	Manual Suction Machine	1	
17	Cervical Collar	5	
18	Oxygen Mask	5	
19	Nasal Cannula	5	
20	Non-Rebreather Mask	3	
21	Chest Seal	5	
22	Needle Decompression Cannula (NDC)	3	
23	Tourniquet	10	
24	Automated External Defibrillator (AED)	1	
25	IV Stand	5	
26	Nebulizer	2	
27	Emergency Trolley	1	
28	Stretcher	2	

29	Wheelchair	1	
30	Examination Couch	2	
31	Privacy Screen	2	
32	Weight Machine	1	
33	Height Scale	1	
34	Measuring Tape	5	
35	Patient Stool	5	
36	ECG Machine	1	
37	Cardiac Monitor	1	
38	Emergency Tray	2	
39	Kidney Tray	5	
40	Needle Forceps	5	
41	Artery Forceps	5	
42	Needle Holder	5	
43	Chromic Sutures	10 Packs	
44	Catgut Sutures	10 Packs	
45	Vision Box (Eye Testing Chart Box)	1	
46	Tongue Depressors	1 Box	
47	Hospital Bed	5	
48	Bedside Table	5	
49	Bed Writing Table	5	
50	CPR Board	2	
51	Sterilizer Machine	1	
52	Needle Cutter	2	
53	Yellow Sharps Disposal Box	3	

IV. Anesthesia Technology

S.No.	Equipment	Quantity Required (25 Students)	Remarks
1	Intubation Dummy	01	
2	Anesthesia Machine	01	
3	Suction machine along with tube and yankauer	01	
4	Laryngoscope	01	
5	Laryngeal Mask Airway: Different Sizes	02 each	
6	Endotracheal tubes Different Sizes	02 each	
7	Double lumen tube, different sizes	01 each	
8	Combitube Different Sizes	01 each	
9	Oral airway Different Sizes	02 each	
10	Nasal airway Different Sizes	01 each	
11	Face mask Different Sizes	01 each	
12	Iv cannula Different Sizes	02 each	
13	Magill forceps (adult and pediatric)	01 each	
14	Tracheotomy tube Different Sizes	01 each	
15	Breathing circuit different types	01 each	
16	Oximeters (Pulp)	01	
17	Pressure infusion bag	02	
18	Thermometer	05	
19	Tourniquets	05	
20	Alcohol swabs and antiseptic solution	03	
21	Different types of Spinal needles	05 each	
22	Epidural needles (Tuohy) along with Epidural catheters	01	
23	Face masks and caps	01 box each	
24	Oxy-meters	01	
25	Capnograph	01	
26	Vital sign monitor	01	

27	Electrolyte solutions, both Crystalloid and colloid solutions (500 ml)	05 each	
28	Ketamine	01 vial	
29	Pentothal	01 vial	
30	Laryngoscope (straight and curved blade)	01 each	
31	Anaesthesia ventilator	01	
32	Gluco-meters	01	
33	Sphygmomanometer	05	
34	Stethoscope	05	
35	Baby weighing machine	01	
36	Atropine	01 vial	
37	Nerve Stimulator	01	
38	Different types of muscle relaxant drug	01 vial each	
39	Stylets and tube exchangers (bougie)	05	
40	Lubricant jelly	05	
41	Self-inflating bag-valve-mask (BVM) – adult & pediatric	01	
42	Defibrillator	01	
43	Three-way stopcocks	03	
44	Syringes (3, 5, 10, 20, 50 ml)	01 each	
45	Emergency drugs (Adrenaline, Atropine, Ephedrine, Phenylephrine, Dobutamine)	01 each	
46	Reversal agents (Neostigmine)	05	
47	Sterile gloves and gowns	05 each	
48	Waste disposal bins (color-coded)	01 each	
49	CVP Line	01	

V. Blood Banking Technology

S. No.	Equipment	Quantity Required (25 students)	Remarks
1.	Haematology Analyzer/Hb estimation tool	1	
2.	Weight Machine	1	
3.	Donor couches	3	
4.	Blood Bag Shaker	3	
5.	Sphygmomanometer	2	
6.	Stethoscope	1	
7.	Emergency tray	1	
8.	Cryo-fuge / Components separator	1	
9.	Plasma extractor	2	
10.	RCC refrigerator	2	
11.	Platelet agitator	1	
12.	FFPs freezer	1	
13.	Agglutination viewer	1	
14.	Gel card cross match (incubator/centrifuge)	1	
15.	Pipette 1 ml	1	
16.	Pipette 10 - 50 μ l	1	
17.	Pipette 100 μ l	1	
18.	Plasma thawer	1	
19.	Water bath	1	
20.	Microscope	2	
21.	Tube racks (large and small)	5, 5	
22.	Computer with printer	2	
23.	UPS back-up		
24.	Cell washer (optional)	1	
25.	Centrifuge	1	
26.	Tube sealer	1	

Essential consumables			
1.	Blood grouping sera	3	
2.	Coombs reagent	1	
3.	Bovine albumin reagent	1	
4.	Test tubes	01 Pack	

VI. Medical Laboratory Technology

a. Clinical Chemistry & Biochemistry

S.No.	Equipment	Quantity Required (25 students)	Remarks
1.	Spectrophotometer/Colorimeter	01	
2.	Electrolyte Analyzer	01	
3.	Centrifuge	01	
4.	Water Bath	01	
5.	Weighing balance	01	
6.	Refrigerator 02 - 08 C	01	
7.	Hygrometer	02	
8.	pH Meter	01	
9.	Adjustable Pipette up to 100 microliter	02	
10.	Adjustable Pipette 100 - 1000 microliter	02	
11.	Beakers Up to 100 mL	05	
12.	Flasks 500 mL	05	
13.	Test Tubes	200	
14.	Measuring cylinder upto 1000 mL	01	
15.	Reagents for all the tests covering the Chemistry practicals	01 Pack (Each)	
16.	Danger box	2	
17.	Gel Tubes	200	
18.	Tourniquets	05	
19.	Swabs	01 Pack	
20.	Syringes 5cc	300	

b. Hematology

S.No.	Equipment	Quantity Required (25 students)	Remarks
1.	Centrifuge	01	
2.	Water Bath	01	
3.	Weighing balance	01	
4.	Microscopes	02	
5.	Multi head microscope	01	

6.	Refrigerator 02 - 08 C	01	
7.	Hygrometer	02	
8.	pH Meter	01	
9.	ESR Stands	05	
10.	Adjustable Pipette upto 100 microliter	02	
11.	Adjustable Pipette 1 - 10 mL	02	
12.	EDTA Tubes	200	
13.	PT APPT Tubes	200	
14.	Westergreen Tubes	200	
15.	Tourniquets	05	
16.	Gloves	02 boxes	
17.	Alcoholic Swabs	01 Pack	
18.	Syringes 5cc	300	
19.	Sahli's apparatus	05	
20.	Neubar counting chamber	5	
21.	Danger Box	01	
22.	Thoma Red Cell Pipette	200 mL	
23.	Thoma white cell pipette	200 mL	
24.	Red Blood Cell Diluent	200 mL	
25.	Platelet Diluent	200 mL	
26.	WBC Diluent	200 mL	
27.	Giemsa Stain	01 Pack	
28.	Blood groups tile(white 02 04 background) 19	10	
29.	Blood groups Antisera	02 Sets	
30.	Blood Lancet	200	
31.	Albumin	01 pack	
32.	Human Globulin	01 pack	
33.	Normal Saline	01 Pack (500 mL)	
34.	Glass Slides	05 Pack	

c. Medical Microbiology

S.No.	Equipment	Quantity Required (25 students)	Remarks
1.	Centrifuge	01	
2.	Incubators	01	
3.	Autoclave	01	
4.	Refrigerator (02 - 08 C)	01	
5.	Hygrometer	02	
6.	pH Meter	01	
7.	Weighing balance	01	
8.	Microscopes	05	
9.	ELISA Equipment	01	
10.	Biosafety Cabinet	01	
11.	Refrigerator 02 - 08 C	01	
12.	Adjustable Pipette upto 10 microliter	02	
13.	Adjustable Pipette 10 - 100 microliter	01	
14.	Reagents for serology/Immunology practical's	01 Pack (Each)	
15.	All the culture media required covering the practical's	01 Pack (Each)	
16.	Required antibiotics sensitivity discs	01 Pack (Each)	
17.	Danger box	01	
18.	Beakers 100 - 1000 mL	01	
19.	Petri Dishes	250	
20.	Flasks 1000 – 2000 mL	05	
21.	Test Tubes	200	
22.	Wire Loop	05	
23.	Bunsen Burner	02	
24.	Tourniquets	05	
25.	Swabs	01 Pack	
26.	Syringes 5cc	300	
27.	Gloves	02 Packs	
28.	Glass Slides	05 Packs	
29.	Grams Stain	01 Set	
30.	ZN Stain	01 Set	
31.	Microscopes	05	

d. Histopathology

S.No.	Equipment	Quantity Required (25 students)	Remarks
1.	Microtome	01	
2.	Tissue Processor (optional)	01	
3.	Microfuge	01	
4.	Water Bath	01	
5.	Weighing balance	01	
6.	Refrigerator 02 - 08 C	01	
7.	Hygrometer	02	
8.	pH Meter	01	
9.	Adjustable Pipette up to 100 microliter	02	
10.	Adjustable Pipette 100 - 1000 microliter	02	
11.	Beakers Up to 100 mL	05	
12.	Flasks 500 mL	05	
13.	Test Tubes	200	
14.	Reagents used for processing, staining and embedding	01 Pack (Each)	
15.	Incubators	01	
16.	Hot Plate	01	
17.	Gloves	02 Packs	
18.	Glass Slides	05 Packs	
19.	Danger Box	01	
20.	H/E Stain	01 Pack (Each)	
21.	Microscopes	05	

e. Medical Molecular Biology

S.No.	Equipment	Quantity Required (25 students)	Remarks
1.	Thermal Cycler	01	
2.	Gel Electrophoresis Apparatus	01	
3.	Gel Dock System	01	
4.	Biosafety Cabinet	01	
5.	Water Bath	01	
6.	Weighing balance	01	

7.	Refrigerator 02 - 08 C	01	
8.	Freezer (-80) Optional)	01	
9.	Hygrometer	02	
10.	pH Meter	01	
11.	Adjustable Pipette up to 100 microliter	02	
12.	Adjustable Pipette 100 - 1000 microliter	02	
13.	Beakers Up to 100 mL	05	
14.	Flasks 500 mL	05	
15.	Test Tubes	200	
16.	Reagents for Molecular biology practical	01 Pack (Each)	
17.	Danger box	2	
18.	Incubators	01	
19.	Gloves	02 Packs	
20.	Glass Slides	05 Packs	
21.	Gel viewer	01	

VII. Surgical Technology, including operating room Technology

S. No.	Items	Quantity Required (25 students)	Remarks
1.	General Set / Cut set <ul style="list-style-type: none"> ▪ Sponge Holding Forceps ▪ Large Arteries (Straight) ▪ Large Arteries (Curved) ▪ Kocher Forceps (Straight) ▪ Kocher Forceps (Curved) ▪ Linz Tissue Forceps ▪ Babcock Forceps ▪ Allis Tissue Forceps ▪ Small Arteries (Straight) ▪ Small Arteries (Curved) ▪ Towel Clip ▪ Touch Forceps ▪ Tooth Tissue Forceps ▪ Plain Tissue Forceps ▪ Intestine Holding Forceps ▪ Dissecting Scissor ▪ Dressing Scissor ▪ Episiotomy scissor ▪ BP Handle No 03 ▪ BP Handle No 04 ▪ BP Handle No 07 ▪ Needle Holder ▪ Bowel ▪ Kidney Dish ▪ Right Angel Retractor (Small, Medium, 	01 Set	

	Large) ▪ London Retractor		
2.	Instrument Box Small	02	
3.	Instrument Box Medium	02	
4.	Instrument Box Large	02	
5.	Cheetal Forceps	02	
6.	Cheetal Forceps / Cylindrical Stand	01	
7.	Common General Surgery Instruments Set	01	
8.	Common Thoracic Surgery Instruments Set	01	
9.	Common Vascular Surgery Instruments Set	01	
10.	Common Gynecological Surgery Instruments Set	01	
11.	Common Orthopedic Surgery Instruments Set	01	
12.	Common Urological Surgery Instruments Set	01	
13.	Common Neurological Surgery Instruments Set	01	
14.	Common ENT Surgery Instruments Set	01	
15.	Simulated Mannequins	05	
16.	Diathermy	01	
17.	Diathermy leads (Monopolar and Bipolar)	10	
18.	OT Lights Portable / Examination Lights	01	
19.	OT Table / Examination Table	01	
20.	Pulse Oximeter	05	
21.	High Pressure Autoclave (Horizontal)	01	
22.	Auto Clave Tape	05	
23.	Autoclave container	05	
24.	Indicators	100	
25.	Different brushes for CSSD	01	
26.	Suctions Machines	02	
27.	Suction tube	05	
28.	Suction tip (Yaunker and pool)	05	

29.	Syringes (3ml, 5ml,10ml, 20ml, 30ml, 50ml, 60ml)	100	
30.	I/V set	10	
31.	Suture practice pads		
32.	IV Cannula 14/16/18/20/22/24	10	
33.	Tongue depressor	50	
34.	Liquid parafin	02	
35.	Pyodine solution	02	
36.	Pyodine scrub	02	
37.	Spirit	02	
38.	Hydrogen peroxide	02	
39.	Formalin	02	
40.	Phenols	02	
41.	PPE	05	
42.	Megall forcep	02	
43.	Surgical Mask	50	
44.	Head Cover	50	
45.	Goggles	05	
46.	Shoe Covers	50	
47.	Gown	05	
48.	Gloves (Sizes 6.0, 6.5, 7.0, 7.5, 8.0)	50	
49.	Surgical drapes Small (2x3)	05	
50.	Surgical drapes full size	05	
51.	Mackintosh (2x4)	05	
52.	Proctoscope	02	
53.	Cotton roll	05	
54.	Gauze roll	05	
55.	Simple Bandage 2"	10	
56.	Simple Bandage 4"	10	
57.	Simple Bandage 6"	10	

58.	Plaster of Paris (PoP) bandage 2"	10	
59.	Plaster of Paris (PoP) bandage 4"	10	
60.	Plaster of Paris (PoP) bandage 6"	10	
61.	Creep Bandage 2"	10	
62.	Creep Bandage 3"	10	
63.	Creep Bandage 4"	10	
64.	Creep Bandage 6"	10	
65.	Surgical Gauze	10	
66.	Blades (No 10,11,12,15,20,23)	100	
67.	Chromic Suture (1.0, 2.0, 3.0,4.0, 5.0, 6.0)	06	
68.	Vicryl suture	02	
69.	Silk Suture (All shapes needles)	05	
70.	Prolene Suture	02	
71.	Steel Stapler	02	
72.	N/Saline Solution	05	
73.	D/Saline Solution	05	
74.	D5% Solution	05	
75.	Ringers Lactate Solution	05	
76.	T-tube (All sizes)	05	
77.	Endotracheal Tube (cuff and un cuff of All sizes)	05	
78.	Chest tube (All sizes)	05	
79.	Tracheostomy Tube (All sizes)	05	
80.	Nasogastric Tube (All sizes)	05	
81.	Redivac drain with bottle (All sizes)	05	
82.	Foley's drain (20, 22, 24, 26, 28)	05	
83.	Nelation's or 1 way catheter (All sizes)	05	
84.	2 way Foley's catheter (All sizes)	05	
85.	3 way Foley's catheter (All sizes)	05	
86.	Urine bags	05	
87.	Mayo Stand	01	

88.	Large Instruments Tables	01	
89.	Small Instruments Tables	01	
90.	Basin (ringed) stands	01	
91.	Revolving stools	01	
92.	I/V stand	01	
93.	Bougie		
94.	Anesthesia Machine (Datex Ohmeda)	01	
95.	LMA (Proseal and Classical of various sizes)	01	
96.	Small suction catheters	05	
97.	Laryngoscope (miller & macintosh blades with boxes)	02	
98.	Orophyrngeal tube (All sizes)	05	
99.	Nasophyrngeal airway (All sizes)	05	
100.	Stylet for ETT	01	
101.	Cervical collar	01	
102.	Ligo gel	05	
103.	Zinco Sticking plaster	05	
104.	3 way used in I/V cannula	05	
105.	Inj. Propofol	01	
106.	Inj. Acuron	01	
107.	Inj. Dormicum	01	
108.	Inj. Ketamine	01	
109.	Inj. Atropine	01	
110.	Inj. Adreanaline	01	
111.	Inj.phenylephrine	01	
112.	Inj. Neopyrolate	01	
113.	Inj. Hydralazine	01	
114.	Inj. Nalox	01	
115.	Inj. Hydrocortisone	01	
116.	Inj. Bupivacaine	01	
117.	Spinal needles of all sizes	10	

118.	Megall forcep	01	
119.	O ₂ cyliender	01	
120.	Inj. Dexa	01	
121.	Inj. Maxolon	01	
122.	Inj. Nalbin	01	
123.	Inj. Toralac	01	
124.	Inj. Pancronium	01	
125.	Inj.suxamethonium	01	
126.	AMBU BAG	02	
128.	Bain circuit (Mapleson D Modified, Adult & Peads size)	02	
129.	Breathing Bag (Peadiatric and Adult size)	02	
130.	Breathing Mask (All sizes)	05	
131.	BP apparatus	02	
132.	Stethoscope	05	

VIII. Cardiac Care Technology

a) Cardiology Technology Equipment

S. No.	Equipment	Quantity Required (25 students)	Remarks
1	ECG Machine	02	
2	Echocardiography Machine	01	
3	Sphygmomanometer	20	
4	Stethoscope	20	
5	Pulse Oximeter	10	
6	Angiography Kit	02	
7	Angiography Catheter Set	02	
8	ETT (Exercise Tolerance Test) Machine	01	
9	Thermometer	20	
10	Defibrillator / AED	01	
11	Holter Monitor	01	
12	PTMC Balloon	01	
13	IABP Balloon	01	
14	Weight machine with Height scale	01	

b) Cardiac Perfusion Equipment

S. No.	Equipment	Quantity Required (25 students)	Remarks
1	ECG Machine	02	
2	Echocardiography Machine	01	
3	Sphygmomanometer	20	
4	Stethoscope	20	
5	Pulse Oximeter	10	
6	Thermometer	20	
7	Defibrillator / AED	01	
8	Weight machine with Height Scale	01	
9	Heart-Lung machine	01	
10	Adult oxygenator with holder	01	
11	Pediatric oxygenator with holder	01	
12	Hemotherm	01	
13	Model of occlusion pump	01	
14	Model of centrifugal pump	01	
15	Perfusion simulation Dummies	01	

IX. Dental Technology (Dental Hygiene)

S.No.	Equipment	Quantity Required (25 students)	Remarks
1.	Bunsen Burner	10	
2.	Plaster spatula	20	
3.	Articulator	10	
4.	Vernier Calipers	20	
5.	Micro motor	02	
6.	Cement spatula	20	
7.	Wax knife	10	
8.	Duplicating gel	05	
9.	Boxing wax	03	
10.	Soft wax	03	
11.	Hard plaster	06	
12.	Finishing & Polishing stone	05	
13.	Investment material	03	
14.	Soft plaster	06	
15.	Electro plating material	02	
16.	Modeling wax	03	
17.	Dental flask	05	
18.	Examination instruments	10	
19.	Simplex powder	03	
20.	Glass slab	05	
21.	Steel ruler	05	
22.	Sand Paper	05	
23.	Sticky wax/Elfy	05	
24.	Trimmer	01	
25.	Arch wires (Different types)	03	
26.	Dental cements(all types)	02	
27.	Wax Carver	01	
28.	Wall Mirror	01	
29.	Polishing strips (Composite)	02	

30.	Tray for polishing	03	
31.	Vibrator	01	
32.	Polishing paste	01	
33.	Rubber Bowl	05	
34.	Composite Material	02	
35.	Amalgam	02	
36.	GIC (luting and Filling)	02	
37.	Artificial Teeth	03	
38.	Calcium Hydroxide Cement	02	
39.	Cold mold seal	03	
40.	Gingival Marginal Trimmer	05	
41.	Different Shaped Burnisher	05	
42.	Local anesthesia/kit	05	
43.	Gauze piece	10	
44.	Googles	05	
45.	Face shield	05	
46.	Autoclave	01	
47.	Cheek retractors	03	
48.	Dental napkins	1 pack	
49.	Slow speed hand piece	03	
50.	Hydraulic press	03	
51.	GG drills all size	03	
52.	Amalgam gun	05	
53.	Plastic Instrument	20	
54.	Articulating paper	10	
55.	Measuring Scale	20	
56.	Scissors	05	
57.	Plugers	10	
58.	Matrix Band + Retainer	10	
59.	Spirit lamp	10	
60.	Plugers	05	
61.	Extraction forceps	05 each type	
62.	Periosteal elevator	05	

63.	Dentine Pins	02	
64.	Dental Burs(different types and size)	10 each type/ size	
65.	Periodontal Probe	10	
66.	Elevators(different types/size)	05 each type	
67.	Bone file	03	
68.	Hemostat and tissue forceps	05	
69.	Pulp broachers (Different types and designs)	05	
70.	Reamers (Different types and designs)	05	
71.	Wire cutters (Different types)	05	
72.	Self-cure powder	02	
73.	Heat cure powder	02	
74.	Heat cure liquid	02	
75.	Polishing compound	02	
76.	Pumice powder	02	
77.	Universal plier	05	
78.	Adams plier	05	
79.	Fix orthodontic kit(accessories)	02	
80.	Polishing cups/brushes	05	
81.	Stainless steel trimming	03	
82.	Denture Trimming stones	02	
83.	Rubber dam (With accessories)	02	
84.	Gutta purcha points/ paper points (Different size)	05	
85.	Impression trays for partial denture (diff types/size)	03	
86.	Gutta purcha condenser	05	
87.	Tissue boxes	10	
88.	Cotton rolls	10	
89.	Dental unit	04	
90.	Dental stools	04	
91.	Hand piece	05	
92.	Phantom Heads	10	
93.	X-ray Pad	02	

94.	Suction machine	01	
95.	Dental x-ray machine with accessories	01	
96.	Porcelain furnace	01	
97.	Casting machine	01	
98.	Band removers	02	
99.	Ultrasonic scaler	02	
100.	High speed hand piece	02	
101.	Study models/skull	10	
102.	Piezo file all size	03	

X. Renal and Dialysis Technology

S.No.	Equipment	Quantity Required (25 students)	Remarks
1.	Hemodialysis Machine	01	
2.	Double lumen catheter i. Curve double lumen catheter different size (adult and peads) ii. Straight double lumen catheter different size (adult and peads)	Each Size one	
3.	Permanent double lumen catheter different size (adult & peads)	Each Size one	
4.	Blood tube circuit for dialysis machine (adult)	02	
5.	Blood tube circuit for dialysis machine (Peads)	02	
6.	Dialyzer (0.5,0.8,1.0,1.2,1.4,1.6,1.8,2.0)	Each Size one	
7.	AVF needle (16, 17, 18)	Each Size one	
8.	Dressing Tray	02	
9.	Surgical double lumen Tray	01	
10.	Acetate solution for dialysis	02	
11.	Bicarbonate solution for dialysis	01	
12.	Bicarbonate powder	01	
13.	PD circuit	01	
14.	PD Solution	01	
15.	Peritoneal catheter (different size)	Each Size one	
16.	Blood Tube circuit for CRRT	01	
17.	Drip Stand	01	
18.	Infusion pump	01	
19.	Nasogastric tube (different size)	Each Size one	
20.	I/V cannula different gauge	Each gauge one	
21.	Thermometer	03	
22.	Different types of airways	03	
23.	Laryngoscope	01	

24.	Endo-tracheal tubes (Different sizes)	01	
25.	Oximeters (Pul p) Ambo bag	01	
26.	Gluco- meters And strips	01	
27.	Sphygmomanometer	02	
28.	Stethoscope	02	
29.	Image intensifier	01	
30.	Weight machine	01	
31.	Goss piece + cotton and paper tap	Each two	
32.	ECG machine	01	
33.	Suction apparatus	01	
34.	Vital sign monitor	01	
35.	Surgical gloves	05	
36.	Surgical gowns	02	
37.	Foleys catheter (different size)	Each Size one	
38.	CRRT Replacement solution	01	
39.	Electrolyte solution N/S 0.9% (100,500, 1000 ml) Dextrose 5% (25, 100, 500 ml) Hyperosmotic infusion KCL ampule (25 ml) Ringer lactate (500 & 1000 ml)	01 Each	

40.	Drugs Inj: Heparin (low molecular weight and high molecular weight) Inj: Epotein Inj: Protamine sulfate Inj: calcium gluconate Inj: sodium bicarbonate Inj: Vallium Inj: Gravinate Inj: Rizek Inj: Zentic Inj: Dompamine Inj: Dyclo (sodium & potassium) Inj: solu cortef (250 & 500 mg) Inj: Avil Inj: Tramol Inj: Paracetamol Inj: Hydralazine Hcl Inj: vancomycine Inj: Amikicin Inj: Flygyle Inj: Ciprofloxacin Inj: Cefixime Inj: Iron Inj: Atropin Inj: Neurobian Tab: Paracetamol Tab:Bone One Tab: nifedipine Tab: polymalt Tab: calcigix	Each one	
41.	Nebulizer machine	01	
42.	Oxygen face masks (Different)	01 Pack	

XI. Aesthetics and skin care Technology

S. No.	Equipment	Quantity Required (25 students)	Remarks
1.	Hot plates with magnetic stirrers	10	
2.	Cosmetic melting pots	5	
3.	Hand mixers / mini overhead mixer	5	
4.	Manual lipstick molds	10	
5.	Manual powder pressing tool	10	
6.	Sieve set	5	
7.	Precision balances	5	
8.	IR thermometer	5	
9.	Muller plate	5	
10.	Manual filling tools	5	
11.	Small overhead stirrer	5	
12.	Handheld homogenizer	5	
13.	Water bath	5	
14.	pH meters	5	
15.	Basic viscometer	5	
16.	Manual gel mixers/spatulas	5	
17.	Standard refrigerator	5	
18.	Small incubator	5	
19.	Mini centrifuge	5	
20.	Shared pH meter	5	
21.	Basic UV lamp	5	
22.	Educational microscope	5	
23.	Manual tube sealer	5	
24.	Hand crimper for balm tubes	5	
25.	Manual labeler	5	
26.	Shelves & storage drawers	5	
27.	RO water filter	5	
28.	Ventilation system	5	
29.	PPE corner	5	

XII. Endoscopy Technology

S.No.	Item	Quantity Required (25 students)	Remarks
1.	Video Gastroscope (Adult)	01	
2.	Video Colonoscope (Adult)	01	
3.	Video Processor (Compatible with scopes)	01	
4.	Light Source	01	
5.	Medical Monitor	01	
6.	Endoscopy Trolley / Stand	01	
7.	Endoscopy Bed / Procedure Table	01	
8.	Suction Machine	01	
9.	Oxygen Cylinder with Flowmeter	01	
10.	Pulse Oximeter	01	
11.	Blood Pressure Apparatus	01	
12.	Biopsy Forceps (Reusable or Disposable)	05	
13.	Polypectomy Snare (Basic)	01	
14.	Injection Needle	10	
15.	Biopsy Valves	02	
16.	Water Bottle and Tubing	10	
17.	Mouth Guards	05	
18.	Lubricant Jelly	05	
19.	Manual Cleaning Sink	01	
20.	Leak Tester	01	
21.	High-Level Disinfectant (Glutaraldehyde / OPA / Peracetic Acid)	02	
22.	Clean Water Supply	01	
23.	Dry Storage Cabinet / Hanging Rack	01	
24.	Personal Protective Equipment (Gloves, Masks, Aprons)	05	
25.	IV Cannulas and Syringes	10	

26.	Ambu Bag	10	
27.	Oxygen Mask / Nasal Cannula	05	
28.	Suction Catheters	02	
29.	Emergency Drugs: Midazolam, Adrenaline, Flumazenil	05	
30.	Disposable Sheets	10	
31.	Specimen Containers (Formalin)	02	
32.	Labels and Request Forms	10	
33.	Cleaning Brushes	02	

XIII. Optometry Technology (Refraction Technology)

S.No.	Item	Quantity Required (25 students)	Notes	Remarks
1.	Manual Phoropter	1	With trial frame compatibility	
2.	Digital Phoropter	1	Optional, for advanced setup	
3.	Retinoscope (Streak)	4	LED preferred	
4.	Direct Ophthalmoscope	4	Rechargeable handle	
5.	Phantom Eye	2	For teaching retinoscopy	
6.	Trial Lens Set (Full)	4	Metal rimmed, ISO standard	
7.	Trial Frame (Adjustable)	4	Adult & pediatric sizes	
8.	Lensometer / Focimeter	2	Manual & digital preferred	
9.	Pupilometer	1	Optional	
10.	PD Ruler / Distometer	4	For IPD & vertex distance	
11.	Visual Acuity Charts	6	Snellen, LogMAR, Lea, Tumbling E	
12.	Near Vision Charts	6	English, Urdu, Symbol versions	
13.	Cross Cylinder ($\pm 0.25/\pm 0.50$)	2	For refinement	

Clinical Optometry Teaching Lab

S.No.	Equipment	Quantity Required (25 students)	Notes	Remarks
1.	Slit Lamp Biomicroscope	2	With camera optional	
2.	Applanation Tonometer	2	Goldmann-type	
3.	Indirect Ophthalmoscope	1	With teaching mirror	
4.	Direct Ophthalmoscope	4	Rechargeable handle	
5.	Visual Field Analyzer	1	Visual Field Perimetry Testing	
6.	Perkins Tonometer (Portable)	1	For outreach/pediatric	
7.	Tonometer Tips / Covers	As needed	Disposable for hygiene	

Pediatric & Orthoptics Teaching Lab

S.No.	Equipment	Quantity Required (25 students)	Notes	Remarks
1.	Prism Bars	1	Horizontal & vertical	
2.	Maddox Rod & Wing	2	For binocular testing	
3.	RAF Rule	2	For near point of convergence	
4.	Prism Trial Set	1	0.5–10 prism diopter range	
5.	Retinoscopy Rack	2	For pediatric training	
6.	Worth Four Dot Test	1	Illuminated	
7.	Hess / Lees Screen	1	Optional	
8.	Stereopsis Tests (Titmus / Randot)	2	For depth perception	
9.	Bagolini Striated Lenses	2 pairs	For suppression testing	
10.	Accommodation & Vergence Rulers	2	Binocular function	
11.	Howell Phoria Cards	2	For horizontal/vertical deviations	
12.	Fixation Targets / Toys	Variable	Child-friendly fixation targets	

Contact Lens Teaching Lab

S.No.	Equipment	Quantity Required (25 students)	Notes	Remarks
1.	Auto Keratometer	1	Often built into autorefractor	
2.	Corneal topography/Tomography	1	For RGP lens fitting evaluation	
3.	Slit Lamp with Graticule	1	For lens fitting evaluation	
4.	Contact Lens Trial Set (Soft & RGP)	2	Disposable or disinfected	
5.	Rose K series RGP lens kits (K2, NC, IC, PG etc)		For keratoconus patients	
6.	Fluorescein Strips	1 box	For RGP fitting	
7.	Insertion & Removal Tools	Sets	For training students	
8.	Contact Lens Care Kits	2–3 types	Include cleaning demo	
9.	Storage Cabinet	1	For lens hygiene	

Low Vision Teaching Lab

S.No.	Equipment	Quantity Required (25 students)	Notes	Remarks
1.	Low Vision Trial Set	2	Plus powers + filters	
2.	Magnifiers (Stand/ Handheld/ Doom magnifier)	10-20	Varied magnification	
3.	Telescope (Monocular/ Binocular)	4	For distance viewing (3X, 4X, 6X and 8X)	
4.	Videio magnifier	1	For near vision	
5.	CCTV	1	For near vision	
6.	PV 16 color vision testing kit	1	For testing color vision anomalies	
7.	Ishhara color vision test	1	For testing color vision (Red- green deficiency)	
8.	Retinoscoep	1	For retinoscopy	
9.	Ophthalmoscope	1	For Fundoscopy	
10.	Fonda glasses	4D, 6D and 8D	For near vision	
11.	Filters	6-10	NoIR full range	
12.	Lensometer	1	For lens verification	
13.	Binocular telescopic glasses Max TV	1	2.1X	
14.	Bioptics/Ocutech telescopes	A set of 3X, 4X, 6X	For distance viewing with reading cap	
15.	Contrast Sensitivity Charts	2	Pelli-Robson or Mars	
16.	Reading Material (Font Sizes)	Sets	Urdu and English versions	
17.	Room Illumination Controls	Yes	Ambient and task lighting	
18.	Task Lighting Devices	2	Adjustable brightness	

Optical Dispensing Lab & Workshop

S.No.	Equipment	Quantity Required (25 students)	Notes	Remarks
1.	Lensometer (Manual & Digital)	2	For lens verification	
2.	Frame Heater	2	Air-blower or salt pan type	
3.	Frame Adjustment Tools Kit	4 kits	Nose pliers, temple adjusters, etc.	
4.	Lens Cutter / Groover	1	For edging training	
5.	Autoedger	1	For edging training	
6.	Pattern Edger / Hand Edger	1	For rimless fitting	
7.	Frame Alignment Table	2	With surface light	
8.	Ruler / PD Stick / Markers	4 sets	Optical ruler for layout	
9.	Demo Frames	20+	Plastic & metal styles	
10.	Demo Lenses	Full range	SV, Bifocal, PAL, Tinted, Photochromic	
11.	Lab Coats / Aprons	As per students	Mandatory in workshop	
12.	Waste Disposal System	1	As per SOP	

Vision Sciences

S. No.	Equipment	Quantity Required (25 students)	Remarks
1.	Biometer	1	
2.	B-Scan	1	
3.	Phaco unit	1	
4.	Slit lamps	2	
5.	Lens meter	2	
6.	Op microscopes	2	
7.	Indirect ophthalmoscope	1	
8.	Direct ophthalmoscopes	2	
9.	Retinoscopes	2	
10.	Trial lens set	2	
11.	Tonometer Schiotz	1	
12.	Synaptophore	1	
13.	Pachymeter	1	
14.	Electro- Diagnostics (ERG,E OG,VER)	1	
15.	RAF Rule	1	
16.	Bagolini Lenses set	1	
17.	Vitrectomy Machine	1	
18.	Automatic lens edger	1	
19.	RGP Rose K2	1	
20.	LoG MAR	1	
21.	Autorefractor / keratometer	1	
22.	Prism bar	1	
23.	Visual field analyzer	1	
24.	Hess screen	1	
25.	Diathermy unit	2	
26.	Surgical light	2	
27.	Surgical sets	8	
28.	Green laser	1	
29.	Yag laser	1	

30.	FFA	1	
31.	Applanation Tonometer	2	
32.	OCT/HRT	1	
33.	Corneal Topography	1	
34.	Air Puff Tonometer	1	
35.	Stereotest Set	1	
36.	Contact Lens Clinic facility	1	
37.	Diagnostic lenses set	1	
38.	BAT	1	
39.	Low Vision Aids	1	
40.	Color Vision Test Set	1	

XIV. Physiotherapy and rehabilitation

S. No.	Name of Lab	Shared/ Specific
1	Computer Lab	Shared
2	Anatomy & Dissection Lab	Shared
3	Physiology & Biochemistry Lab	Shared
4	Kinesiology & Biomechanics	Specific
5	Electrotherapy & Physical Modalities Lab	Specific
6	Physical Therapy Practice Lab	Specific
7	Integrated Functional Rehabilitation Lab	Specific
8	Post Graduate Lab	For MS/PhD Program

Computer Lab

Computer Lab	Equipment / Item	Quantity - For 25 Students
	Computer updated version, SPSS/Endnote	25

1. Anatomy & Dissection Lab:

	Equipment / Item	Quantity - For 25 Students
Anatomy	Model of Heart	5
	Model of Lungs	5
	Model of Alveoli	3
	Model of Skull	5
	Cervical Vertebrae	5 sets
	Thoracic Vertebrae	5 sets
	Rib Bones	5 sets
	Sternum with costal cartilages	3
	Human skeleton	2
	Vertebral Column Model	3
	Model of lateral wall of nasal and maxilla	2
	Model of sagittal section of Face and neck	2
	Model of nerves of Head and neck	2

Model of Muscles of Face and neck	2
Model of digestive system	3
Model of whole-body sagittal section	3
Model of circulation of whole body	3
Model of autonomic nervous system	3
Model of development of embryo stages	3
Model of nervous synapse	3
Model of cross section of abdomen and chest	3
Model of kidney	3
Model of stomach	3
Model of liver	3
Model of eye	3
Model of ear	3
Model of urinary system	3
Model of skin structures	3
Model of male genital	3
Model of sagittal section of male reproductive system	3
Model of sagittal section of female reproductive system	3
Cross-section of Spinal Cord with spinal nerve	5
Model of brain stem	5
Model of larynx	3
Model of head and neck	3
Skull	3
Model of duodenum pancreas and spleen	3
Model of fertilization	3
Model of thalamus, hypothalamus	5
Model of cranial nerves	5
Clavicle bone	15
Humerus bone	15
Ulna bone	15
Radius bone	15
Carpal bones set	15

	Hip bone	15
	Femur	15
	Tibia	15
	Fibula	15
	Tarsals bones set	15
	Enlarged Neuron Model	5
	Meninges with Ventricular System Model	5
	Brodmann Area Chart	5
	Homunculus Chart (motor & sensory)	5
	Cranial Nerve & Nuclei Chart	2
	3D Anatomy Software Access (smart screen)	1
	Cerebral cortex model	5
	Cerebellum model	5
	Limbic system model	5

2. Physiology & Biochemistry Lab

	Equipment / Item	Quantity - For 25 Students
	Test Tubes	50
	Lancet	100
	Alcohol swab	100
	Whatman Filter Paper	25
	Westergren's tubes and racks	2
	3 ml Syringes	5
	Microhematocrit reader	5
	Centrifuge machine	2
	Sahli's hemoglobinometer	5
Physiology	Capillary tube,	25
	ABO blood grouping kit	3
	Glass Slides	25
	Stethoscopes	5
	Reflex hammers	5

	Tuning fork	5
	BP apparatus	5
	Kymograph	1
	Spirometer	5
	CPR mannikins adult and child	2
	ECG machine and strips	1
	Stopwatch	5
	Ergometer	2
	pulse oximeter	5
	AED machine	2
Biochemistry	Test Tubes	50
	Centrifuge (Tabletop)	2
	Spectrophotometer (UV-Vis)	2
	Water Bath (Adjustable Temp.)	3
	Micropipettes (Variable volume)	3-4 sets (P10, P100, P1000)
	Micropipette Tips (Boxes)	20 boxes
	pH Meter	2
	Hot Plate with Magnetic Stirrer	3
	Refrigerator (4°C)	1
	Weighing Balance (Analytical)	2
	Glassware Set (Beakers, Flasks, Tubes)	20–30 sets
	Test Tube Racks	25
	Burettes and stands	15-120
	Funnels, Spatulas, Wash Bottles	25 each
	Distillation Unit or RO Water System	1
	Fume Hood	1
	First Aid Kit & Fire Extinguisher	2 sets
	Lab Coats and Safety Goggles	25
	Chemical Storage Cabinet (Flammable)	1
	Basic reagent kits for glucose, cholesterol, urea, creatinine	
Micropipette stand	As per set	

	Micro lab	2
Pathology & Microbiology	Slide of calcification	2
	Slide of osteogenic sarcoma	2
	Slide of granulation tissue	2
	Slide of chronic inflammation (cholecystitis)	2
	Slide of acute inflammation (appendicitis)	2
	Slide of Fibroadenoma	2
	Slide of carcinoma of breast	2
	Slide of the actinomycosis	2
	Slide of giant cell tumor	2
	Microscope	5
	Test tubes	5
	Beakers	5
	Sample containers	5
	Staining Chemicals	As per requirement
	Culture Mediums	5

3. Kinesiology and Biomechanics Lab:

	Equipment / Item	Quantity - For 25 Students
Kinesiology and Biomechanics	Couches	3
	Goniometers	5
	Axillary/elbow Crutches	3
	Inclinometer	5
	Pulleys	1
	Towel	5
	Wedges	5
	Roller	5
	Staircase	1
	Parallel bar	1
	Wheelchair	2
	Measuring tape	2

	Weight machine	1
	Walker	2
	Cane (all types)	3
	Pillow	5

4. Electrotherapy & Physical Modalities Lab:

	Equipment / Item	Quantity - For 25 Students
Electrotherapy	Ultrasound Machine	1
	IFT Unit	1
	Infra-Red Unit	1
	Traction Machine	1
	Compression Unit	1
	Compression Bandages	5
	Cold Packs	2
	Wax Therapy unit	1
	Ultrasound Gel Cans	1
	Microwave Diathermy	1
	LASER Machine	1
	Hydrocollator unit	1
	Combo unit	1
	Iontophoresis unit	1
	TENS/EMS	3
Ultraviolet unit	1	
Medical Physics	Calorimeter	2
	Glass prism	8
	Thermometer	3
	Multimeter	2
	Vernier caliper	3
	Screw gauge	3
	Spring Balance	2

Drawing Board	5
Galvanometer	10
Rectangular Slab	5
Weight Box	3
Rheostat	4
Resistance Box High	4
Power Supply	1
Potential Meter	2
Stopwatch	2
Key for Resistance Box	4
Helix Stand apparatus with stand	4
Analytical Balance	1
Geometry Box	1
Photo Therapy with Stand	1
Common Pin Box	2
Thumb Pin Box	2
White Paper	1
Graph Paper	2
Laser Light	5
Resistance Wire	1
Circuit Wire	1
Face Mask	50
Battery	2
Weight Bob	3

5. Physical Therapy Practice Lab

	Equipment / Item	Quantity – For25 Students
Therapeutic Exercises	Couches	5
	Thera belts	10
	Dumbbells/Weights of different kgs (range 1–5 kg)	2 each
	Progressive resistance bands	5 packs
	Balance boards	3
	Aerobic steppers	3
	Manual Therapy	Treatment Tables
Stools		25
Anatomical Models		2
Mobilization Belts		5
Foam Rollers		3
Soft Tissue Tools		5
Goniometers & Inclometers		5
Sports Physical Therapy	Stopwatch	3
	Colorful tapes	3
	Chalk powder	5 packs
	Wooden boxes of different heights	5
	Taping kits (kinesio, athletic, rigid)	5
	Exercise mats (non-slip)	5
	Plyo boxes (variable height)	2
Musculoskeletal Physical Therapy	Full Skeleton Model (life-size, articulated)	2
	Vertebral Column with Pelvis Model	2
	Shoulder Joint Model	2
	Hip Joint Model	2
	Knee Joint Model	2
	Upper Limb Muscle Model	2
	Lower Limb Muscle Model	2
	Pelvis with Femur Model	2
	Foot and Ankle Model	2

	Hand and Wrist Model	2
	Measuring Tapes (non-stretchable)	5
	Plumb Line with Posture Grid	2
	Hand Dynamometers	2
	Pinch Gauges	2
	Weighing Scale + Height Chart	2
	Wall Bar / Stall Bars	1
	Gait Training Parallels	1
	Muscle Action Charts (Upper & Lower limb)	2
	ROM Norms Chart	2
	Orthopedic X-rays (joints, spine, fractures)	2
	Skeletal and Muscular System Posters	2

6. Integrated Functional Rehabilitation Lab

	Equipment / Item	Quantity – For 25 Students
Neuro PT	Neurological Assessment Kit	5
	Single, Tripod, Tetra Pod Can	5
	Couches	2
	Crutches	3 Set
	Wheelchair	2
	Wedges	2
	Mats	3
	Roller	3
Cardiopulmonary PT	Distance Measuring Wheel	1
	Oral Endotracheal Tube (Peds & Adult)	10
	Syringes	5
	BP Apparatus / Sphygmomanometer	5
	Pulse Oximeter	5
	Skin fold measuring Caliper	5
	Cones	5
	Stop Watch	3
	Measuring tape	3
	Aerobic Stepper set	3

	Stethoscope	5
	Incentive spirometer	3
	Step bench	2
	Nasal Cannula, Face Mask	3
	Rebreather bag/ Ambu bag Peads/ Adult	2
Integumentary PT	Wound care mannequins	3
	Sterile dressing packs (gauze, tape, gloves, antiseptic)	50
	Wound measurement rulers and probes	5
	Color and odor charts	5 sets
	Burn dressings (silver sulfadiazine, hydrocolloid, silicone)	25
	Diabetic foot ulcer foot models	2
	Pressure ulcer positioning mannequins	1
	Pressure-relieving devices (gel pads, foam cushions)	2
	Circumferential limb measurement tapes	5
	Compression bandaging kits (short stretch, long stretch)	5
	Disposable gloves, aprons, masks	25
	Alcohol swabs, saline bottles	25
	BWAT forms	25 copies
	PUSH tool	25 copies
	Lund-Browder Charts	5 charts
	Rule of Nines diagrams	5 charts
	Palm method guides	5 guides
	Braden Scale	10 copies
	Norton Scale	5
	Waterlow Scale	5
	Wound dressing kits (assorted)	5 kits
	Wound irrigation sets	5 sets
	Scar management tools	5 sets
Pressure-relieving cushions	3 cushions	

	Offloading devices (orthotic samples)	3 sets
	Printed educational materials	25 sets
	Mannequins / wound models	3cm models
	Burn simulation kits	3 kits
Women Health PT	Anatomical Pelvis Model with Reproductive & Pelvic Floor Structures	3
	Mannequin	1
	Periniometer	3
	Sacral modulation device	2
	Gym ball	2
	Dilators	2 of each size
	Compression bandages (for MLD)	5
	Shoulder pulleys	2
	Resistance bands	5
	Foam rollers	3
	Dumbbells	2
	Balance pads	2
Paeds PT	Pediatric Examination table	3
	Pediatric mannequins (infants to toddlers)	2
	Growth charts (height, weight, head circumference)	2
	Pediatric weighing scales	2
	Therapy balls (small & medium)	5
	Pediatric-sized walkers, crutches, canes	3 each
	Adaptive toys	3
	Charts/models of child development stages	2
	Stepping stones	2
	Soft climbing structures	2
	Sensory brushes	5
	Puzzles, hand therapy tools	5
Charts/models of child development stages	2	
	Automated external defibrillator	1

Emergency Procedures	Dummy simulator for CPR	1
	Bag valve mask	1
	Laryngeal face mask	1
	Combi tube	1
	Pocket CPR mask	1
	Suctioning apparatus	1
Geriatrics	Reflex hammer	3
	Goniometers	3
	Inclinometer	3
	Dynamometers	3
	Peak flow meter	3
	Berg balance tool kit	3
	Time up and Go kit	3
	Functional reach tool kit	3
	Walkers	3
	Canes	3
	Parallel bars	3
	Gait belts	5
	Balance boards	2
Community Medicine and Rehabilitation	Digital Weighing Scales	5
	Height Measuring Rods/Stadiometers	5
	MUAC Tapes (Mid-Upper Arm Circumference tape)	3
	Digital Thermometers	2
	Glucometer with Test Strips	1 sets
	Basic First Aid Kit	1
	Wheelchairs	1
	Crutches – Elbow/Axillary	1 pairs
	Commode Chair	1
	Toy-Making Kit	1 set
	Clipboards	5
	Nutrition chart or plate model	1

Posters on hygiene, immunization, and malnutrition	2
Snellen Eye Charts	1
Hearing Screening Device / Tuning Forks (512 Hz)	2
Simplified Cervical and Lumbar Spine Models	1

Post Graduate lab:

The equipment should be according to number of programs MS and PhD. The equipment should fulfill the advanced research requirements.

XV. Orthotics and Prosthetics

Laboratory and Equipment Requirements

The success of the BS Prosthetics and Orthotics program depends on the establishment of well-equipped laboratories. The following labs will be integral to the program:

a. Orthotics Lab

The Orthotics Lab will provide students with hands-on experience in designing and fabricating orthotic devices.

Required Equipment

- Vacuum forming machines for shaping thermoplastic materials.
- Thermoplastic molding and heating ovens.
- CNC milling machines for precision cutting.
- Grinding and finishing tools.
- Alignment jigs and fixtures for accurate orthotic fitting.
- Bracing materials including plastics, metals, and composites.
- Digital scanning and CAD/CAM software for orthotic design.
- Plaster modeling tools for custom mold creation.

b. Prosthetics Lab

The Prosthetics Lab will focus on the creation of artificial limbs and related technologies.

Required Equipment

- 3D printers for component fabrication and prototyping.
- CAD/CAM systems for designing prosthetic limbs.
- Alignment jigs and assembly tools.
- Myoelectric prosthesis training kits.
- Composite material processing tools.
- Silicone molding systems for prosthetic sockets.
- Torque wrenches and lamination tools.
- Laser scanning systems for custom-fit prosthetics.

c. Biomechanics Lab

This lab will facilitate the study of human movement and analysis of prosthetic and orthotic interventions

Required Equipment

- Motion captures systems for gait and posture analysis.
- Force plates and pressure sensors to measure biomechanical forces.
- Electromyography (EMG) systems for muscle activity monitoring.
- Software for biomechanical modeling and simulation.
- High-speed cameras for movement analysis.
- Isokinetic dynamometers for muscle strength evaluation.
- Goniometers and inclinometers for joint range-of-motion analysis.

d. Rehabilitation Engineering Lab

This lab will be dedicated to the development of assistive and adaptive technologies.

Required Equipment

- Adaptive technology development kits.
- Robotic exoskeleton components for mobility assistance.
- Sensor-based rehabilitation devices.
- Virtual reality (VR) systems for rehabilitation.
- Prosthetic control interface systems.
- Advanced neuroprosthetic training kits.
- AI-based assistive technology development software

1. Fixtures Overview Table

S.No.	Lab Name	Fixture Type	Quantity 25 students	Purpose
1.	Orthotics Lab	Workbenches with tool storage	10	Student workspace
2.	Orthotics Lab	Safety cabinets	5	Chemical storage
3.	Prosthetics Lab	Worktables with measurement units	8	Precision work
4.	Prosthetics Lab	Fireproof storage	3	Safe material handling
5.	Biomechanics Lab	Adjustable-height testing platforms	4	Gait analysis
6.	Biomechanics Lab	Mirror panels	6	Posture and movement assessment
7.	Rehabilitation Engineering Lab	Modular workstations	5	Flexible development space
8.	Rehabilitation Engineering Lab	Soundproof testing chambers	2	Sensor accuracy validation

A separate detailed list of Prosthetics and Orthotics (P&O) equipment, categorized by lab and function is provided below.

1. Space and Infrastructure Requirements

Adequate space allocation is essential for the smooth functioning of the program. The following areas must be developed:

S.No.	Room Type	Size (sq. ft.)	Purpose
I.	Orthotics Lab	1000	Hands-on training in orthotic fabrication
II.	Prosthetics Lab	1200	Fabrication and fitting of prosthetic limbs
III.	Biomechanics Lab	800	Motion and gait analysis
IV.	Rehabilitation Engineering Lab	1000	Development of assistive technologies
V.	Lecture Halls	750 each	Multimedia-enabled theoretical instruction
VI.	Clinical Training Room	1000	Patient assessment and device fitting
VII.	Faculty Offices	300 each	Workspaces for faculty members
VIII.	Administrative Office	500	Program coordination and management
IX.	Student Lounge	500	Study and collaborative space

Lab Size**Dimensions:** 20 x 18 ft = 360 sq. ft.**Prosthetics & Orthotics Lab Equipment List**

Category	Equipment	Quantity (for 25 students)	
Casting Equipment	Plaster bandages	40 rolls	
	Casting tray or stand	10	
	Vaseline or release agent	5 bottles	
	Bandage scissors/Blade	20	
	Casting padding	20 rolls	
	Measuring tape & Vernier caliper	20 each	
	Stockinette	20 pieces	
	Cling plastic wrapping sheet	10 rolls	
	Cutting aid	20	
	Indelible pencil	20	
	Positive Cast Equipment	Plaster or POP Powder	50 kg
		Sandpaper	20 sheets
Casting cups or mixing containers		20	
Spatula		20	
Metal rods & Clamps		20 each	
Plaster of Paris (POP) bandage		40 rolls	
	Blade (cast cutting blade)	20	

Category	Equipment	Quantity (for 25 students)
Modification Equipment	Surform tools (Round, Half-round, Straight)	30 total
	Hammers (Claw, Rubber Mallet, Ball Peen, etc.)	20 total
	Nails	5 boxes
	Measuring tape & Indelible pencil	20 each
Molding Equipment	Thermoplastic Sheets (Various sizes)	50 sheets
	Vacuum Forming Machine	2
	Thermoforming Oven	2
	Trimming Machine (Electric Grinder/Sander)	4
Finalizing & Finishing Equipment	Electric Grinder (Rotary Tool)	4
	Files (Metal/Mirror)	20
	Heat Gun	4
	Scissors/Shears	20
	Rubber Hammers	20
	Cushioning Materials (Foam/Gel Pads)	20 sets
	Velcro belts, Loops & Rivets	20 sets
Machines	Vacuum Forming Machine	2
	Thermoforming Oven	2
	Trimming Machine (Electric Grinder)	4
	Sanding Machine	4
	Drilling Machine	4
	Jigsaw	4
	Heat Press Machine/Heat Gun	4
	Sewing Machine	2

Casting Equipment

Casting involves creating a mold of the patient's body part using negative and positive casts.

Negative Cast Equipment

- **Plaster bandages** – For creating the initial mold.
- **Casting tray or stand** – Supports the limb during casting.
- **Vaseline or release agent** – Prevents plaster from sticking to the skin.
- **Bandage scissors/Blade** – For cutting excess material.
- **Casting padding** – Protects the skin and ensures comfort.
- **Measuring tape & Vernier caliper** – For precise measurements.
- **Stockinette** – Fabric tube to protect the skin.
- **Cling plastic wrapping sheet** – Prevents direct contact with skin.
- **Cutting aid** – For trimming casting materials.
- **Indelible pencil** – Marks specific reference points.

Positive Cast Equipment

- **Plaster or POP Powder** – To create the positive form.
- **Sandpaper** – Smooths the cast.
- **Casting cups or mixing containers** – For mixing materials.
- **Spatula** – Mixes and applies casting material.
- **Metal rods & Clamps** – Provide structural support.
- **Plaster of Paris (POP) bandage** – Hardens the positive cast.
- **Blade (cast cutting blade)** – For trimming and adjustments.

Modification Equipment

- **Surform tools** – For shaping and contouring (Round, Half-round, Straight).
- **Hammers** – Different types for shaping and fitting (Claw, Rubber Mallet, Ball Peen, Sledgehammer, Tack Hammer).
- **Nails** – For securing components.
- **Measuring tape & Indelible pencil** – For accuracy.

Molding Equipment

- **Thermoplastic Sheets** – Polypropylene sheets (5mm, 6mm, and 10mm).
- **Standard sheet sizes: 24" x 36", 36" x 48", 48" x 96"**
- **Vacuum Forming Machine** – Shapes thermoplastic sheets.
- **Thermoforming Oven** – Heats thermoplastic materials.
- **Trimming Machine (Electric Grinder/Sander)** – Shapes molded devices.

Finalizing and Finishing Equipment

- **Electric Grinder (Rotary Tool)** – Smooths and shapes components.
- **Files (Metal/Mirror)** – For detailed shaping.
- **Heat Gun** – Reheats areas for further reshaping.
- **Scissors/Shears** – Cuts soft materials.
- **Rubber Hammers** – Adjusts components without damage.
- **Cushioning Materials (Foam/Gel Pads)** – Enhances comfort.
- **Velcro belts, Loops & Rivets** – For secure fastening.

Machines Used in the Lab

- **Vacuum Forming Machine** – Shapes thermoplastic materials.
- **Thermoforming Oven** – Heats sheets evenly.
- **Trimming Machine (Electric Grinder)** – Refines components.
- **Sanding Machine** – Smooths surfaces.
- **Drilling Machine** – Creates holes for attachments.
- **Jigsaw** – Cuts prosthetic/orthotic components.
- **Heat Press Machine/Heat Gun** – Softens and molds materials.
- **Sewing Machine** – Stitches Velcro belts.

Prosthetics Lab Equipment

- **Prosthetic Feet** – Different designs including energy-storing and dynamic response feet.
- **Pylons & Connectors** – Structural components that connect sockets to feet.
- **Prosthetic Knee Joints** – Various types for different mobility needs.

- **Laminating Equipment** – For creating durable prosthetic sockets.
- **Alignment Jigs** – Ensures proper fitting and alignment of prosthetic components.
- **Silicone & Gel Liners** – Provide cushioning and comfort for prosthetic users.
- **Socket Fabrication Tools** – Used for shaping and refining prosthetic sockets.
- **Torque Wrench & Screwdrivers** – For assembling and adjusting prosthetic components.
- **Dynamic Alignment Equipment** – Ensures optimal gait adjustment and function.

XVI. Occupational Therapy

S. No.	Equipment	Quantity Required (25 students)	Remarks
1.	Scratch Awl	1	
2.	Professional Rotary Punch	1	
3.	Revolving Punch	1	
4.	Splint Pattern Marker	1	
5.	Economy Heat Gun	1	
6.	Little Splint Pan	1	
7.	Thermometers & Turner	1	
8.	Toilet Raised Seat	1	
9.	Bed	1	
10.	Chair	8	
11.	Table	2	
12.	Stove	1	
13.	8-Piece Adaptive Utensil Set	1	
14.	Wheel Chair with Flip Arm	1	
15.	Occupational Therapy Tool Kit	1	
16.	BOT-2 Gross Motor Kit	1	
17.	BOT-2 Fine Motor Kit	1	
18.	School Function Assessment Complete Kit	1	
19.	Peabody Motor Development Scale (PDMS-2)	1	
20.	Goal Oriented Assessment of Life Skills	1	
21.	Apollo Tool Set	1	
22.	Saw Set	1	
23.	8-Piece Gardening Tool Set	1	
24.	Electric Pottery Wheel Machine	1	
25.	Candle Making Starter Kit	1	
26.	Sensory Profile-2 Starter Kit	1	

27.	Inflatable Pilates Roller	1		
28.	Balance Platform Ball	1		
29.	Positioning Pillows (Wedge)	1		
30.	Cozy Caterpillar Body Socks	1		
31.	Steamroller Squeeze Machine	1		
32.	Physioball	5		
33.	Parallel Bar	1		
34.	Microscope	1		
35.	Sonopulse Machine Set	1		
36.	Skeleton	1		
37.	Brain Model	1		
38.	Heart Model	1		
39.	Muscular Torso	1		
40.	Functional Hip Joint	1		
41.	Functional Shoulder Joint	1		
42.	Functional Knee Joint	1		
43.	Functional Elbow Joint	1		
44.	Foot Skeletal Model	1		
45.	Hand Skeletal Model	1		

XVII. Speech and Language Pathology/Therapy

1. Anatomy Lab (Common)
2. Physiology Lab (Common)
3. Biochemistry Lab (Common)
4. Speech and Language Labs (Specialized)
5. Audiology Lab/ where requires (Specialized)

a. Labs Requirement for Speech and Language Pathology

S. No.	Equipment	Quantity Required (25 Students)	Remarks
1.	Standardized Articulation Assessment and Management Tools	1–2 kits	One shared kit sufficient
2.	Standardized Language Development Equipment and Scales	1 kit	Shared during practical sessions
3.	Standardized Voice Assessment Tools	1 kit	Basic perceptual assessment tools
4.	Oral Motor Therapy Tools	3–4 sets	Reusable therapy tools
5.	Standardized Fluency Assessment Tools	1 kit	For demonstration and assessment practice
6.	Dysphagia Screening Tools	2 sets	Bedside screening training
7.	Aphasia Assessment Tools/Scales	1 kit	Shared among students
8.	Dysarthria Assessments Scales	1 kit	Shared
9.	Pragmatic Language Assessment Kit	1 kit	Optional but useful
10.	AAC Communication Devices	2–3 devices	Low-tech AAC preferred
11.	Speech and Language Therapy Materials	5 sets	Flash cards, picture cards etc.
12.	Digital Voice Recorder	1–2	Optional
13.	Computer/Laptop for Speech Analysis	1–2	Optional but helpful
14.	Headphones/ Speakers	3–4	For auditory tasks
15.	Ling Six Sound Test	2 sets	Very low cost
16.	Mirrors	10	Shared between students
17.	Speech Trainer	1	Optional

18.	Models of Larynx	1–2	Teaching aid
19.	Tongue Depressors	Box (100)	Disposable
20.	Torch	3–4	Oral examination
21.	Stop Watch	2	Timing tasks
Tools / Kits			
22.	Clinical Evaluation of Language Fundamentals - CELF2-preschool	1 kit	Expensive – one shared
23.	Clinical Evaluation of Language Fundamentals CELF5-Adult	1 kit	Shared
24.	Boston Diagnostic Aphasia Examination Battery (BDAE)	1 kit	Shared
25.	Boston Naming Test (BNT)	1 kit	Very useful
26.	Diagnostic Evaluation of Articulation and Phonology (DEAP)	1 kit	Good articulation assessment
27.	The Renfrew Language Scales The Renfrew Expressive Vocabulary Test (REV)	1 kit	Useful for language
28.	The Renfrew Language Scales The Renfrew Bus Story Test- Revised Edition	1 kit	Narrative analysis
29.	The Renfrew Language Scales The Renfrew Action picture test	1 kit	Expressive language
30.	Frenchay Dysarthria Assessment- Second Edition FDA-2	1 kit	Standard dysarthria test
31.	Quick Assessment of Dysarthria	1	Screening
32.	Quick Assessment of Aphasia	1	Screening
33.	Quick assessment of Apraxia of speech (complete set)	1	Screening
34.	Big Mac (Complete set)	1	Low-tech AAC
35.	GO-Talk	1	AAC training

36.	IC SPEECH laptop	1 license	Optional
37.	Tongue Meter	Not essential	-
38.	Chewing tubes (complete set)	3–4 sets	Therapy tools
39.	Communication Boards	3–4	Low-tech AAC
40.	PECS Starter Kit	1	Autism therapy training
41.	Phonetic Placement Charts	1-2	Articulation teaching
42.	IPA Chart Poster	1-2	Phonetics teaching
43.	Oral Mechanism Model	1	Oral exam teaching
44.	Speech Analysis Software (e.g., PRAAT)	Free	Very important for acoustic analysis
45.	Microphones (studio quality)	2	Recording speech samples
46.	Sound Level Meter	1	Voice intensity measurement

b. Speech, Language, and Swallow Therapy Lab Equipment

S. No.	Equipment	Quantity Required (25 Students)	Remarks
1.	Dr. Speech Mike	Not essential	
2.	Vitalstim /swallow therapy	1	Optional but beneficial
3.	Thickening Powder	Stock	Dysphagia training
4.	Different food textures	Training use	Puree / soft / liquid
5.	Pulse Oximeter	1	Basic bedside monitoring
6.	Dr. Speech USB, Nasalview USB, Voice USB	1	Optional
7.	CP Chair	1	For pediatric therapy
8.	Playroom:	1 room setup	Essential

	<ul style="list-style-type: none"> • Table • Chair • Age-Appropriate Toys • Kitchen + Living room Kids Setup Age-Appropriate books		
9.	Naso- Meter	Optional	Very expensive
10.	Language Therapy Material: <ul style="list-style-type: none"> • Posting Toys • Puzzles • Flash Cards Reinforcers	5 sets	Flash cards, puzzles
11.	Speech and Swallow Therapy Material: <ul style="list-style-type: none"> • Tongue Depressor • Alcohol Swabs • Sanitizers • Gauze piece • Latex Gloves • Plastic Gloves • Disposable Plates • Disposable Spoon • Disposable Glass Tissue Papers	Regular stock	Gloves, gauze etc.
12.	Posting Box in Each Room	3–4	Used in therapy
13.	Observation Gallery	1	For student observation
14.	Laptops/PC + Color Printers <ul style="list-style-type: none"> • Developing customized therapy material Printing Formal/Informal Assessments Reports, Progress Reports, and Therapy Plans	2	Report writing
15.	Air Conditioners	2–3	Patient comfort

16.	Standardized Assessments for Speech, Language and Swallow Assessments.	Shared	See list above
17.	Formal and Informal Screenings	Multiple copies	Photocopiable
18.	Data collection Sheets and Interview forms.	Printed sets	Low cost
19.	Case history forms for particular disorder.	Printed sets	Low cost

c. Audiology Room Equipment

S. No.	Equipment	Quantity Required (25 Students)	Remarks
1.	Tympanometer	Optional initially	Costly equipment can be added later
2.	Amplivox Audiometer (Headphones, Bone Conductor, Microphone, Speech List)	1	Core audiology testing equipment
3.	Maestro Audiometer	Optional	Can be used for screening purposes
4.	Otometrics OAE Machine	Optional	Useful for newborn/infant screening, but not essential initially
5.	PathMed ASSR	Not necessary initially	Advanced diagnostic equipment
6.	Video Otoscope	1	Useful for ear examination and teaching
7.	Syringe for Ear Impression	2	For hearing aid earmold impressions
8.	Ear Impression Material	Stock (consumable)	Consumable material for ear impressions
9.	Speakers	2	For free-field audiometry

10.	Bed for Babies	1	For pediatric hearing assessment
11.	Laptop	1	Data storage and audiometry software
12.	Tuning Fork	2–3	Basic hearing screening tests
13.	Alcohol Swabs	Stock	Infection control
14.	Sanitizers	Stock	Infection control
15.	Stuff Toys for VRA	5–6	Pediatric audiological testing
16.	Printer	1	Printing audiology reports
17.	Soundproof Room	1	Very important for audiological testing
18.	Manual Otoscope + Specula	2	Basic ENT examination
19.	Diagnostic Audiometer with Accessories (Elkon or equivalent)	1	Core diagnostic equipment
20.	Free Field-Testing Arrangement	1 setup	For pediatric and aided testing
21.	Hearing Aid Repairing Kit	1	Training in hearing aid maintenance
22.	Auditory Training & Screening Materials	3 sets	For auditory rehabilitation
23.	Ear Model	1	Teaching aid for ear anatomy
24.	Portable Screening Audiometer	1	Field screening

e. Play Room Equipment

S. No.	Equipment	Quantity Required (25 Students)	Remarks
1.	Play Materials, Toys	10–15 items	Therapy
2.	Noise-Making Toys	5–6	Auditory training
3.	Educational Toys	8–10	Language stimulation
4.	Indoor and Outdoor Games	3–4	Group therapy

CLINICS FORMS

(A): Patient Intake Form

A1-Child Case History
A2-Child Language Case History Form
A3-Child Patient Intake Summary
A4-Adult Case History
A5-Adult Speech Form
A6-Voice Case History
A7-Language Screening Case History (Adult)
A8-Stuttering Case History
A9-Case History proforma for Speech Language Disabilities
A10 – Articulation Case History

(B): Speech Assessment (Child)

B1-Articulation Analysis
B2-DEAP
B4- Speech Assessment for Cerebral Palsy
B5- Diadochokinetic Syllable Rates Worksheet

(C): Progress Monitoring Forms (Speech)

C1- Fluency Progress Monitoring Data 1
C2- Fluency Progress Monitoring Data 2
C3- Speech & Language Structured Task
C4- Articulation Data Sheet
C5- Speech Observation
C6- Speech Language Data Sheet
C7 - Listening Data Sheet
C8- Data Collection Sheet (Tasks)
C9- Summary of Session
C10 - Phonological Processes Worksheet

(D): Language Assessment (Child)

D1- Bankson Language Screening Test
D2- Cognitive Linguistic Evaluation
D3- Clinical Speech & Language Screening
D4- CELF Preschool
D5- CELF-Revised
D6- Preschool Language Scale 3 (PLS-3)
D7- The MaCArthur Communicative Development Inventory, Words & Gestures
D8- Boehm Test of basic concepts
D9- British Picture Vocabulary Scale
D10- ACELP Speech & Language Assessment
D11 - Test for Reception of Grammar
D12 – Evaluation Summary (PLS)
D13- Children’s Acquired Aphasia Screening Test
D14- The Rossetti Infant-Toddler Language Scale (Parent Questionnaire)
D15 – Task Analysis: Expressive Communication

(E): Language Assessment (Adult)

E1- Aphasia Screening Test
E2- Minnesota Test for Differential Diagnosis of Aphasia
E3- Weston Aphasia Battery
EF4- Informal Assessment of TBI
EF5- Functional Independence Measure (FIM)
EF6 – Aphasia Evaluation
E7- Peabody Picture Vocabulary Test (PPVT)

(F): Evaluation of Auditory Skills (Child)

F1-Test of Auditory Discrimination on Words
F2- Auditory Memory & Auditory Sequencing
F3- LING'S Test
F4- Screen Listening Word Form – 1
F5- Screen Listening Word Form – 2
F6-Frequency Scale

(G): Evaluation of Auditory Skills (Adult)

G1- Communication Difficulty Questionnaire
G2- TACL – R

(H): Dysphagia

H1- Bedside Dysphagia Evaluation
H2- Dysphagia Precautions
H3- Adult Dysphagia Screening
H4 – Swallow Screen

(I): Oral Motor

I1- Saliva Control Assessment Form
I2- Oral Motor Examination Form
I3 – Oral Motor Exercise

(J): Cognition

J1- The Mini Mental State Exam

(K): Dysfluency

K2- Fluency Form

KL3- Situational Fluency Rating

K4 - Assessment of associated motor behaviors

K5 - Frequency Count for Dysfluencies

K6 – Self Rating of Reactions

K7 – Perceptions of Stuttering Inventory (PSI)

(L): Observation Forms

L1- School Observation Form SHAHANA

L2- Observation Forms

L3- Student Observation Hours

L4- School Observation Form - Ms. Tahmina – PSYCHOLOGY

(M): General

M1- Contract

M2- Video recording consent form - RELEASE FORM

(N): Speech Language Screeners for School

N1 - Speech and Language Screening

N2 - Speech and Language Screening Grades 2-4

(O): Checklist

O1- Assessment of Language Development

O2- Assessment of Pragmatic Skills

O3- Play Checklist

O4- Pre linguistic Profile

(P): Voice

P1- Voice Screening Checklist
P2- Nasendoscopy

(Q): Handouts

Q1- Stuttering Do's and Don't
Q2- Vocal Hygiene Strategy

(R): Modified Barium Swallow

R1- Lifestyle Modifications for Patients with GERD
RS2- Ques & Ans About the Modified Barium Swallow Study

(S): New Patient Information

S1 -Initial pt. information form (adult)
S2- Initial pt. information form (child)
S3- Inpatient initial screening
S4- Outpatient initial screening
S5 - Personal Details of Individuals with Speech Language Disabilities
S6 – Registration Form

(T): Sound Therapy

T1 – Sound Screening Case History
T2 – Child Case History for Sound Therapy

XVIII. Radiography and Imaging Technology including Radiology Technology

CORE RADIOLOGY SKILL EQUIPMENT

Maximum Score: 18

Equipment	Required	Available	Functional	Score
X-ray unit (demo/training)	Yes	<input type="checkbox"/>	<input type="checkbox"/>	5
Control panel functional	Yes	<input type="checkbox"/>	<input type="checkbox"/>	3
X-ray tube with stand	Yes	<input type="checkbox"/>	<input type="checkbox"/>	3
Bucky table	Yes	<input type="checkbox"/>	<input type="checkbox"/>	3
Chest stand	Yes	<input type="checkbox"/>	<input type="checkbox"/>	2
Collimator with light field	Yes	<input type="checkbox"/>	<input type="checkbox"/>	2
Exposure switch available	Yes	<input type="checkbox"/>	<input type="checkbox"/>	5
Mobile X-ray unit (if applicable)	Yes	<input type="checkbox"/>	<input type="checkbox"/>	3

IMAGE RECEPTORS & PROCESSING

Item	Mandatory	Yes	No	Score
CR reader available	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
DR detector (demo/training)	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
X-ray cassettes (various sizes)	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
Imaging plates	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
Viewing box	Yes	<input type="checkbox"/>	<input type="checkbox"/>	

RADIATION PROTECTION

Item	Mandatory	Yes	No	Score
Lead aprons (adequate quantity)	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
Thyroid shields	Yes	<input type="checkbox"/>	<input type="checkbox"/>	

Gonadal shields	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
Lead gloves	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
TLD/dosimeter (demo)	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
Radiation safety SOP displayed	Yes	<input type="checkbox"/>	<input type="checkbox"/>	

PRACTICAL TRAINING AIDS

Item	Mandatory	Yes	No	Score
Human skeleton model	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
Anatomical charts	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
Radiographic positioning charts	Yes	<input type="checkbox"/>	<input type="checkbox"/>	
Patient positioning mannequin	Yes	<input type="checkbox"/>	<input type="checkbox"/>	

ADVANCED IMAGING SIMULATION

Modality	Available	Simulator/Demo	Score
CT demo software/model	Yes	<input type="checkbox"/>	3
MRI demo material	Yes	<input type="checkbox"/>	3
Ultrasound training machine	Yes	<input type="checkbox"/>	3
C-Arm demo	Yes	<input type="checkbox"/>	3
Fluoroscopy demonstration unit	Yes	<input type="checkbox"/>	3

RADIATION SAFETY (PNRA COMPLIANCE)

Safety Measure	Mandatory	Available	Score
Lead Aprons	Yes	<input type="checkbox"/>	3
Thyroid Shields	Yes	<input type="checkbox"/>	2
Gonad Shields	Yes	<input type="checkbox"/>	2

Radiation Warning Signage	Yes	<input type="checkbox"/>	2
Emergency Power Cut-off	Yes	<input type="checkbox"/>	2
RSO Name & Safety Protocol Display	Yes	<input type="checkbox"/>	4

XIX. Respiratory Therapy including pulmonary function testing

S. No.	Equipment	Quantity Required (25 students)	Remarks
1.	Mechanical Ventilator	1	
2.	BiPAP Machine	1	
3.	CPAP Machine	1	
4.	PFT Machine	1	
5.	Suction machine	2	
6.	ECG machine	1	
7.	Cardiac Monitor	1	
8.	Tracheostomy tube of different sizes	1	
9.	Nebulizer machine	2	
10.	AMBU Bag Adult & Paeds	3	
11.	AMBU Bag Mask & Paeds	3	
12.	Oxygen Cylinder with trolley	2	
13.	Oxygen flow meter	2	
14.	Dressing Drum	1	
15.	Laryngoscope set	5	
16.	NG tube different sizes	5	
17.	IV Lines different sizes	5	
18.	Folly's Catheter different sizes	5	
19.	Drip set	5	

20.	Oropharyngeal airways different sizes	5	
21.	LMA	5	
22.	Suction catheter	5	
23.	Oxygen Mask adult	5	
24.	Disposable Syringes 1 cc. 3 cc. 5cc. 10 cc. 50 cc	5	
25.	Syringe Pump	2	
26.	Neck soft collar	5	
27.	CVP and Arterial Line	3	
28.	Incentive Spirometer	2	
29.	Defibrillator	1	
30.	Finger Pulse oximeter	1	
31.	Emergency Crash trolley	1	
32.	Emergency Tray	1	
33.	CPR Dummy	2	
34.	X- ray film viewer	1	
35.	Tourniquet	1	
36.	Drip Stand	3	
37.	Kidney Tray	3	
38.	Towel clips (Backus) 10cm	1	
39.	Stethoscope	5	
40.	sphygmomanometer	5	
41.	Infusion Pump	1	
42.	ETT tube different sizes	5	
43.	Nebs atom	5	

32.	Nebs salbutamol	5	
34.	Rebeather mask	5	
36.	Venture mask	5	
38.	Inj: Atrpine	2	
40.	Inj: Adrenaline	2	
42.	Inj: avil	2	
44.	Inj: sulocortif 250 mg	2	
46.	Inj : Midazolam	2	
48.	Inj: Dopamine	2	
50.	Inj: Calcium gluconate	1	
52.	Inj: Heparine	2	
54.	Inj: KCL	1	
56.	Inj: Dobutamine	2	

XX. Neurophysiology Technology (EEG, NCS, EMG)

1. Lab Infrastructure & Environment Control

S.No.	Item	Minimum Quantity / Specification	Remarks
1	Sound-attenuated room (for BAEP)	1, Appropriate size	
2	Dim light control system (for EEG/EP)	-	
3	Anti-static flooring	-	
4	Proper earthing system certification	-	
5	Air conditioning	Temperature-controlled 22–24°C	
6	Wall-mounted clocks (for seizure timing training)	-	

2. Electroencephalography (EEG)

S.No.	Item	Minimum Quantity / Specification	Remarks
1	Digital EEG machine (minimum 32-channel; preferably 64-channel), with video camera	2	
2	EEG caps (adult, pediatric, neonatal sizes)	3 of Each	
3	Individual EEG electrodes (gold/silver/sintered)	3 sets	
4	Electrode lead wires	3 sets	
5	Photic stimulator	1 complete assembly	

3. Nerve Conduction Studies (NCS) & Electromyography (EMG)

S.No.	Item	Minimum Quantity / Specification	Remarks
1	EMG/NCS machine	Minimum Quantity = 2	
2	Surface stimulating electrodes	02	
3	Recording electrodes (surface & needle)	02	
4	Ground electrodes	02	
5	Concentric needle electrodes	02	
6	Single-fiber EMG electrodes	Preferable	
7	Automatic Electrical stimulator	02	
8	Electrode cables and connectors	02	

4. Evoked Potentials (EP)

S.No.	Item	Minimum Quantity / Specification	Remarks
1	Evoked Potentials (EP)	Minimum Quantity = 1	
2	Visual Evoked Potential (VEP) system	02	
3	Pattern reversal and flash stimulator	02	
4	Brainstem Auditory Evoked Potential (BAEP) system	02	
5	Insert earphones/headphones	02	
6	Somatosensory Evoked Potential (SSEP) stimulator	02	
7	Peripheral nerve stimulation electrodes	02	

5. EMG/NCS Consumables

S.No.	Item	Minimum Quantity / Specification	Remarks
1	Disposable needle electrodes	02	
2	Surface electrodes (disposable/reusable)	02	
3	Conductive paste	02	
4	Gloves (non-sterile)	02	
5	Sharps containers	02	
6	Disinfectant wipes	02	

6. EEG & EP Consumables

S.No.	Item	Minimum Quantity	Remarks
1	Measuring tapes (head measurements)	02	
2	Conductive EEG paste/gel or Collodion (if used)	02	
3	Skin preparation gel	02	
4	Alcohol swabs	02	
5	Cotton gauze	02	
6	Adhesive tape	02	
7	Syringes (for gel application)	02	
8	EEG electrode cleaning unit	02	
9	Collodion removal system (if collodion is used)	02	

7. Patient & Simulation Equipment

S.No	Item	Minimum Quantity	Remarks
1	Neurology Examination kits	5	
2	Examination couch/bed	5	
3	Neurophysiology training mannequins (head, limbs)	15	
4	EEG head models for electrode placement practice	15	
5	Pediatric simulation models (optional)	10	
6	Privacy screens/curtains	Need based	

8. IT & Digital Infrastructure

S.No.	Item	Minimum Quantity	Remarks
1	Desktop computers/workstations	1 for each machine and Minimum 3 extras	
2	Large display monitors	2	
3	Video cameras (for video-EEG)	1 for each machine	
4	Secure data storage server or external drives	02	
5	UPS (Uninterruptible Power Supply)	1 for each machine and workstation	
6	Network and internet access	Not less than 100 MBps	
7	Printers and scanners	02	

9. Teaching & Learning Aids

S.No.	Item	Minimum Quantity	Remarks
1	Anatomical brain models	20	
2	Peripheral nerve models	20	
3	Spinal cord models	20	
4	Posters (10–20 system, dermatomes, and myotomes)	20	
5	Whiteboard / smart board	Minimum size = 48" x 96"	
6	Projector and screen	01	
7	Procedure manuals & SOPs	01	

8	Neurophysiology textbooks	01	
9	Case-based training datasets	01	
10	Online journal access	01	
11	Subscription to neurophysiology guidelines	01	

10. Safety & Infection Control

S.No.	Item	Minimum Quantity	Remarks
1	Hand hygiene stations	2–3 with hand sanitizer dispensers	
2	PPE (gloves, masks, gowns)	5–6 boxes of gloves, 2 boxes of masks, and 25 lab gowns	
3	Biohazard waste bins	2–3 waste bins and sharps containers	
4	Emergency trolley (basic life support)	Minimum Quantity = 1 (fully equipped)	
5	Fire extinguisher	Minimum Quantity = 3	
6	Electrical safety testing tools		

11. Advanced / Specialist Equipment (Optional)

S.No.	Item	Minimum Quantity	Remarks
1	Long-term video-EEG monitoring system	2	
2	Intraoperative neurophysiology (IONM) equipment	1	
3	Transcranial magnetic stimulation (TMS)	2	
4	Polysomnography (PSG) system	2	
5	Quantitative EEG (QEEG) software	01	
6	Source localization software	01	
7	High-resolution EMG software	01	
8	Portable EEG system	01	
9	Ambulatory EEG recorder	01	

XXI. Nutrition (Human Nutrition and Dietetics)

S. No.	Equipment	Min. requirement (Equipment: Students)	Remarks
1.1.Nutritional Analysis Lab			
1.	Complete Kjeldahl's apparatus (Protein Analysis)	1	
2.	Complete Soxhlet apparatus (Fat Analysis)	1	
3.	Fiber Analyzer	1	
4.	Digital Colorimeter	1	
5.	Muffle furnace	1	
6.	pH meters	5	
7.	Magnetic stirrer with Hot plate	3	
8.	Analytical balance	2	
9.	Drying oven	1	
10.	Digital Refractometer	1	
11.	Compound Microscope	2	
12.	Laminar flow hood	1	
13.	Sonicator (extraction)	1	
14.	Rotary evaporator	1	
15.	Incubator	1	
16.	Homogenizer	1	
17.	Autoclave	1	
18.	Refrigerator	1	
19.	Water bath	1	
20.	Water bath (Shaking)	1	
21.	Centrifuge	1	
22.	Moisture Analyzer	1	
23.	Colony Counter	1	

24.	Desiccator	2	
25.	Bunsen Burner/heating mantel	5 each	
26.	UV-Visible Spectrophotometer	1	
1.2. Meal Management Lab			
1.	Gas stove	1:10	
2.	Blender	1:10	
3.	Convective oven	1:10	
4.	Measuring cups, Glasses, Bowls, Plates set for serving size estimation	1:10	
5.	Electric beater	1:10	
6.	Measuring jug (various size) set	1:10	
7.	Kitchen scale	1:10	
8.	Cookware	1:10	
9.	Bakeware	1:10	
10.	Utensils & Cutlery sets (required all type of strainers, spoons, glass, plates, masher, mixing bowls of different sizes, heat resistance silicon spatulas/wood spatulas/ stainless steel spatulas)	1:10	
11.	Rollin pin	1:10	
12.	Stainless steel hand whisker	1:10	
13.	Dough kneader	1:10	

14.	Food thermometer (food-grade digital probe)	1:10	
15.	Food processor including juicer, shaker and all peeling, grating chopping accessories	1:10	
16.	Food models (for portion size education)		
1.3.Clinical Nutrition Lab			
1.	Sahli's apparatus/ Hemoglobinometer	4	
2.	Blood pressure monitor	4	
3.	Glucometer	4	
4.	Pulse Oximeter	4	
5.	Weighing Scale (Adult)	4	
6.	Skin fold clipper	4	
7.	Measuring tapes	1:10	
8.	MUAC Tape (Adults)	1:10	
9.	MUAC Tape (Child)	1:10	
10	. Infantometer	2	
11	. Portable body fat analyzer	3	
12	. Body composition analyzer (BIA)	1	
13	. Stadiometer	5	

14	. Head Circumference (HC) Tapes	1:10	
15	. Stop-watch	5	
16	. Weighing scale for baby	2	
17	. Knee Height Caliper	3	
18	. Hand Grip Dynamometer	1:10	

1.4. Equipment of the shared Labs (Can be shared with other disciplines)

1.4.1. Anatomy

1.4.2. Physiology

1.4.3. Biochemistry

1.4.4. Pathology

Note: The equipment inventory is designed to accommodate the academic and practical needs of 50 students of BS program. Also all the chemicals, ingredients for (RECIPE DEVELOPMENT) and other accessories required for proper practical training should also be considered.

**Laboratory Requirements for MS HND
(Including equipment of BS)**

S. No.	Instrument	Quantity	Remarks
1.	Vacuum drying oven	1	
2.	Refrigerated centrifuge	1	
3.	Orbital shaker	2	
4.	Vortex mixer	2	
5.	Freeze Dryer	1	
6.	High-Performance Liquid Chromatography	1	
7.	UV-Visible Spectrophotometer (double beams)	1	
8.	Gas Chromatography (optional)	1	
9.	ELISA Reader	1	
10.	Plate reader with fluorescence/luminescence	1	
11.	Compound Light Microscope with camera (clinical diagnosis (histopathology, hematology, microbiology))	2	
12.	Micropipettes (different sizes)	2 each	
13.	-40 Refrigerator	1	

**Laboratory Requirements for Ph.D. HND
(Including all equipment of BS and MS)**

Sr. No	Instrument	Quantity	Remarks
1.	Dual-Energy X-Ray Absorptiometry (DEXA) scanner	1	
2.	Real-Time PCR	1 (optional)	
3.	FTIR	1	
4.	LC-MS/MS	1 (optional)	
5.	Gas Chromatography–Mass Spectrometry	1 (Optional)	
6.	Amino-acid analyzer	1 (optional)	

Equipment required for Clinical setup at teaching hospitals

S. No	Instrument	Quantity	Remarks
1.	Blood pressure monitor	3	
2.	Weighing Scale (Adult)	1 for each ward	
3.	Skin fold clipper	1 for each ward	
4.	Measuring tapes	1 for each ward	
5.	MUAC Tape (Adults)	5	
6.	MUAC Tape (Child)	5	
7	Infantometer	2	
8	Portable body fat analyzer	2	
9	Body composition analyzer (BIA)	1	
10	Stadiometer	2	
11	Head Circumference (HC) Tapes	5	
12	Weighing scale for baby	2	
13	Knee Height Caliper	2	
14	Hand Grip Dynamometer	5	

NOTE: The Equipment mentioned in Sr#4 under heading of Equipment required for clinical set up is for required training of 50 students at various wards in clinical setting.

XXII. Psychology and Counseling

- Apparatus for Controlled Experiments
- **Tachistoscope:** A device that presents visual stimuli for very brief durations, used to study perception and attention.
- **Psychophysical Apparatus:** Includes devices for studying sensory thresholds, perception, and reaction time, such as depth perception apparatus and size-weight illusion boxes.
- **Memory Drum:** Used for studying memory and learning by presenting stimuli in a sequential manner.
- **Reaction Time Apparatus:** Measures the time it takes to respond to a stimulus, often used in studies of attention and decision- making.
- **Attention Board with Counter:** Used to study attention and distraction by presenting stimuli and requiring participants to count or respond to specific targets.
- **Phi-Phenomenon Apparatus:** Demonstrates the phi phenomenon, the perception of movement from static images, used in studies of visual perception.
- Stop Watch
- Match board (peg board with Metronome)
- Maze learning Apparatus (Electronic)
- Meter Rod(Steel) & Wooden

Essential Items for an Experimental Psychology Lab Cognitive & Reaction Time Equipment

- Reaction Time Apparatus (manual & computerized)
- Tachistoscope (visual stimulus presentation)
- Memory Drum (for verbal learning experiments)
- Mirror Drawing Apparatus
- Finger Dexterity Board
- Pursuit Rotor Apparatus (motor learning)
- Hand Dynamometer (grip strength)
- Jigsaw Puzzle / Form Board Tests

Sensory & Perceptual Testing Tools

- Vision testing charts (Snellen chart, color blindness plates)
- Depth perception apparatus
- Optical illusions & perception card
- Tuning forks (various frequencies)

Psychophysiological Measurement Devices

- GSR (Galvanic Skin Response) Meter — emotional arousal
- Biofeedback equipment
- Pulse oximeter
- Heart rate monitors
- Blood pressure monitor

List of Test for Experimental Lab

- Aesthesiometer
- After image Apparatus (Metallic)
- Asch Cards (Set of six Cards for practical note book)
- Blind Fold Goggles
- Blind Spot apparatus
- Blin Spot Card & Bind Spot Sheet
- Code Learning Card
- Code Learning Carge sheet
- Color Mapping Zone Apparatus (Perimeter)

- Color mapping zone Chart for right eye
- Color mapping zone chart for left eye
- Color Mixer (Electric)
- Condition of Attention Apparatus (Electronic)
- D.L cards (Set of 16 card Plastic made)
- D.L Cards (Set of 16 cards with blind Fold Goggles)
- Depth perception Apparatus (japanese)
- Digit form
- Digit Span Sheet
- Exposure Board (Matallic)
- Form Board
- Illusion Board with Stand
- Illusion cards
- Illusion Charts
- Kent-rosen of list of Words
- KOHS Block design tests
- List of meaningful words
- List of meaningless words

Observation & Recording

- Video cameras (for behavioral recording)
- One-way mirror observation room (if available)
- Voice recorders
- Stopwatches / timers
- Soundproof or low-noise testing cubicles

a. Assessment Tools & Instruments

Intelligence & Cognitive Ability Tests

- Wechsler Adult Intelligence Scale (WAIS)
- Wechsler Intelligence Scale for Children (WISC)
- Raven's Progressive Matrices
- Stanford–Binet Intelligence Scale

Personality Assessment Tools

- Minnesota Multiphasic Personality Inventory (MMPI-2 or MMPI-3)
- Eysenck Personality Questionnaire (EPQ)
- 16 Personality Factor Questionnaire (16PF)

Neuropsychological & Cognitive Function Tests

- Wisconsin Card Sorting Test (WCST)
- Bender Visual-Motor Gestalt Test
- Stroop Color and Word Test
- Trail Making Test

Projective Tests

- Rorschach Inkblot Test
- Thematic Apperception Test (TAT)
- Draw-A-Person Test

Educational & Aptitude Test

- Differential Aptitude Tests (DAT)
- Woodcock–Johnson Tests

Clinical & Diagnostic Tools

- Beck Depression Inventory (BDI)
- Hamilton Anxiety Rating Scale (HAM-A)
- Child Behavior Checklist (CBCL)

b. Supporting Equipment & Software

- **Computers** with specialized software (e.g., Pearson Q-interactive, PsyToolkit, SPSS).
- **Recording devices** (audio/video) for behavioral observation.
- **Scoring sheets, manuals, and stimulus materials** for each test.
- **Statistical software** for data analysis.

c. Ethical & Administrative Requirements

- a. Standardized administration manuals for each test.
- b. Locked storage for test kits (to prevent misuse).
- c. Consent forms and ethical guidelines for participants.

**XXIII. Emergency Clinical Medicine Technology including
Emergency and intensive Care Technology**

S. No.	Equipment	Quantity Required (25 students)	Remarks
1.	Emergency Crash trolley	1	
2.	Proctoscope	1	
3.	Dressing Set 12-14 cm	1	
4.	Sterilizer	1	
5.	Probe 14, 15cm	1	
6.	Basic Standard Set	1	
7.	Cardiac Monitor	1	
8.	Steam Inhaler Machine	1	
9.	ECG machine	1	
10.	AMBU Bag Adult	1	
11.	AMBU Bag Mask	1	
12.	Suction machine	1	
13.	Kidney Tray	1	
14.	Dressing Drum	1	
15.	Laryngoscope set	1	
16.	NG tube different sizes	3	
17.	IV Lines different sizes	4	
18.	Folly's Catheter different sizes	4	
19.	Drip set	1	
20.	Oropharyngeal airways (different sizes)	3	
21.	LMA	1	
22.	Suction catheter	2	
23.	Oxygen Mask adult	1	
24.	Disposable Syringes 1 cc. 3 cc. 5cc. 10 cc. 50 cc	4	
25.	Syringe Pump	1	

26.	Neck soft collar	1	
27.	Neck Hard collar phildhiphia	1	
28.	Towel clips (Backus) 10cm	1	
29.	Finger Pulse oximeter	1	
30.	Rubber ballon set for bleeding	1	
31.	Emergency Tray	1	
32.	Nebulizer machine	1	
33.	X- ray film viewer	1	
34.	Tourniquet	1	
35.	Oxygen Cylinder with trolley	1	
36.	Oxygen flow meter	1	
37.	Defibrillator	1	
38.	Stethoscope	1	
39.	Blood pressure Apparatus	1	
40.	CPR Dummy	1	
41.	ETT tube different sizes	3	
42.	Nebs atem	2	
43.	Nebs salbutamol	2	
44.	Rebeather mask	1	
45.	Venture mask	1	
46.	Inj: Atrpine	2	
47.	Inj: Adrenaline	2	
48.	Inj: avil	2	
49.	Inj: sulocortif 250 mg	2	
50.	Inj : Midazolam	2	
51.	Inj: Dopamine	2	
52.	Inj: Calcium gluconate	1	
53.	Inj: Heparine	2	
54.	Inj: KCL	1	

XXIV. Dispenser Technology

1. Basic Furniture & Infrastructure

1. Dispensing benches (Marble / Laminated)
2. Stools / Chairs
3. Wall cabinets
4. Work sinks with running water
5. Proper ventilation / Exhaust system
6. Adequate lighting
7. First aid box
8. Fire extinguisher

2. Weighing & Measuring Equipment

1. Electronic weighing balance
2. Manual weighing balance
3. Fractional weights
4. Measuring cylinders (10 ml – 1000 ml)
5. Graduated beakers
6. Conical flasks
7. Pipettes (glass & plastic)
8. Droppers
9. Pestle & Mortar
10. Funnel
11. Glass / Porcelain tiles
12. Burner
13. Tripod stand
14. Glass rods
15. Litmus paper
16. Filter paper
17. Spatula

3. Chemicals & Ingredients for Dispensing Preparations

a) Powders

1. Aspirin
2. Phenacetin
3. Caffeine
4. Talc
5. Starch
6. Light Kaolin
7. Zinc Oxide

b) Ointments

1. Liquid Paraffin
2. Soft Paraffin
3. Hard Paraffin
4. Paraffin Wax
5. Wool Fat
6. Vaseline
7. White Wax
8. Sulphur
9. Salicylic Acid
10. Benzoic Acid

c) Solutions / Lotions

1. Acriflavin
2. Calamine
3. Zinc Oxide
4. Bentonite
5. Sodium Citrate
6. Liquefied Phenol
7. Glycerin
8. Sodium Chloride
9. Potassium Permanganate
10. Dextrose
11. Boric Acid

d) Ear Drops

1. Boric Acid
2. Ichthammol
3. Glycerin
4. Salicylic Acid
5. Sodium Bicarbonate

e) Throat Paint

1. Tincture Iodine
2. Potassium Iodide
3. Tincture Aconite
4. Tincture Myrrh
5. Peppermint Oil
6. Tannic Acid
7. Glycerin
8. Thymol

f) Carminative Mixture

1. Sodium Bicarbonate
2. Tincture Cardamom Compound
3. Spirit Ammonia Aromatic
4. Spirit Chloroform
5. Distilled Water

i) Miscellaneous Chemicals

1. Poppy Seeds
2. Belladonna Roots
3. Aspirin Powder
4. Copper Sulphate
5. Menthol Crystals
6. Camphor
7. Gentian Violet

4. Dispensing Accessories & Equipment

1. Mortar & Pestle (Glass & Porcelain)
2. Spatulas (Steel & Plastic)
3. Ointment slabs (Glass / Marble)
4. Hot plate

5. Water bath
6. Stirring rods
7. Sieves
8. Dispensing bottles
9. Corks

5. Dispensing Containers & Packaging Materials

1. Label printer / Stickers
2. Marker pens
3. Prescription pads (Dummy)
4. Drug information charts
5. Measuring spoons
6. Instruction labels

6. Safety & Hygiene Equipment

1. Lab coats
2. Gloves (Latex / Nitrile)
3. Face masks
4. Safety goggles
5. Hand sanitizers
6. Waste disposal bins (Color coded)
7. Sharps container

7. Reference Materials & Teaching Aids

1. Pharmacopoeia (BP / USP)
2. Dispensing manuals
3. Drug interaction charts
4. Model prescriptions
5. Charts (Dosage forms & Routes)
6. Computer with internet facility
7. Projector / Smart board
8. Demonstration Room

8. Appliances

1. Thermometer
2. Stethoscope
3. Blood Pressure Apparatus
4. Sterilizer
5. Tongue Depressor
6. Splints

9. Disposables

1. IV Cannula (Branula)
2. Butterfly needle
3. Nasogastric tubes
4. Foley's catheter
5. Urine bags
6. CVP line
7. IV sets
8. Blood transfusion sets
9. Blood bags
10. Simple bandages
11. Crepe bandages
12. Plaster of Paris bandages
13. ECG electrodes
14. Lumbar puncture needles
15. Airway
16. Endotracheal tubes
17. Surgical sutures (Silk (1, 2/0), Catgut (1, 2/0), Prolene (1), Vicryl (1))

10. Student Capacity Recommendation

- **1 dispensing unit per 4–5 students**
- **Minimum 20–25 students per lab session**
- **Separate instructor demonstration table**

11. Compliance & Quality Notes

- Lab should follow **Good Dispensing Practices (GDP)**
- Equipment should be **clean, calibrated, and labelled**
- Regular **safety training** for students
- Maintain **lab log book and inventory register**

XX. Primary Health Care Technology including Health Technology

S. No.	Equipment	Quantity Required (25 students)	Remarks
1	Basic Standard Surgical Set	01	
2	Thoracic Surgical Set	01	
3	Vascular Surgical Set	01	
4	Plastic Surgery Set	01	
5	Paediatric Surgery Set	01	
6	Laparoscopic Surgical Set (Complete)	01	
7	High Pressure Autoclave (Table Type)	01	
8	Cystoscope (Diagnostic & Therapeutic)	01	
9	Bronchoscope	01	
10	Pulse Oximeter	02	
11	Blood Pressure Apparatus	02	
12	Nebulizer	02	
13	Oxygen Cylinder with Trolley	02	
14	Suction Machine	02	
15	Instrument Trolley	02	