



OFFICE OF THE DEAN & PRINCIPAL
SAHEED RENDO MAJHI MEDICAL COLLEGE & HOSPITAL,
BHAWANIPATNA, KALAHANDI

At- Bhangabari, Po- Uditnarayanpur, Bhawanipatna Dist- Kalahandi, Pin-766002
Email: bptmedicalcollege@gmail.com <https://srmmch.odisha.gov.in/>



Letter No. 1759 Date: 27/09/2023

Corrigendum

The Subject contained in bid reference no 2/ 2023-24 of this office letter no 1626 dated 14.09.2023 relating to "Expression of Interest for Supply of Laboratory Chemicals & Consumables and Equipment's & Instruments" is added with detail specification of items for the smooth management of academic session in SRM MCH, Bhawanipatna, Kalahandi.

Memo No. 1760, Date: 27/09/2023

Dean & Principal
SRM MCH, Bhawanipatna, Kalahandi
SRM Medical College & Hospital
Bhawanipatna, Kalahandi

Copy To DIO, NIC, Kalahandi to request your kind action to publish the corrigendum of "Expression of Interest For Supply of Laboratory Chemicals & Consumables and Equipment's & Instrument" At SRM MCH, Bhawanipatna Of Kalahandi District Web Portal.

Memo No. 1761, Date: 27/09/2023

Dean & Principal
SRM MCH, Bhawanipatna, Kalahandi

Copy to the Collector cum DM, Kalahandi for kind information.

Memo No. 1762, Date: 27/09/2023

Dean & Principal
SRM MCH, Bhawanipatna, Kalahandi

Copy to the ADM (Gen.), Kalahandi / Administrative officer, SRM MCH, Bhawanipatna, Kalahandi for kind information.

Memo No. 1763, Date: 27/09/2023

Dean & Principal
SRM MCH, Bhawanipatna, Kalahandi

Copy to the Superintendent, , SRM MCH, Bhawanipatna, Kalahandi for kind information.

Memo No. 1764, Date: 27/09/2023

Dean & Principal
SRM MCH, Bhawanipatna, Kalahandi

Copy to the DMET, Odisha, Bhubaneswar /Nodal Officer, from DMET of SRM MCH, Bhawanipatna, Kalahandi/ Additional Secretary, H & FW Deptt Govt of Odisha, for kind information.

Dean & Principal
SRM MCH, Bhawanipatna, Kalahandi



ANATOMY DEPARTMENT

S.NO.	Name of the Items	Quantities
1	Micro scopes Monocular / Binocular MICROSCOPE FRAME Body : Aluminum die-cast body with all critical movements MICROSCOPE FRAME Body : Aluminum die-cast body with all critical movements based on ball-bearing & wireguides thereby ensuring smooth & precise manipulation. Enables easy manipulation <i>Rust-free metal body with high quality paint finish to ensure trouble free performance for years. Accuracy: Machining of components on high precision CNC machines to ensure better accuracy. Micron Sensitive mechanical movements: of specimen: Enables easy manipulation of specimen</i> Mechanical Stage: Co-axial low drive mechanical stage (125mm x 145mm) (+/-5mm) with traverse area of 50mm x 76mm (+/-5mm) Focussing System: Co-axial coarse & fine focusing control (Both Side) with a focus adjustment and find adjustment knobs, ergonomically designed and the system to prevent stage drift problems during focus drive. The knobs ergonomically designed & the system provides precision at all magnifications. Condenser Holder: Rack & pinion mounted condenser holder. Illumination Base: Built-in illumination base with pre-centred 6V20W halogen bulb coupled with an efficient collector lens system provide optimum brightness along the optical path. A conveniently positioned slider knob enables variable light control. Efficient light collector-lens system for optimum brightness. The ventilated light relay system resulting in the minimum heating of base. Meets International safety standards of CE. Nose Piece: The superior design Quadruple nosepiece with positive click stop based on precision ball-bearing mechanism, enables smooth objective change allows smooth rotation & easy access to specimens. Sub-stage Condenser: Abbe condenser with aperture iris diaphragm, N.A. 1.25, provided with a filter holder and blue filter. With its compound lens system ensures that the traverse of light along the microscope's optical path is optimised. The built-in iris diaphragm enables maximum contrast of the specimen under observation. OBJECTIVES Achromatic Objectives Made from high quality Japanese optical glass Precision engineered for parfocal & centred viewing High-grade optics with multi-layer coatings provides optimum brightness & contrast for long hours of comfortable viewing. Optics are uniformly centered & interchangeable: in any hole of revolving nosepiece for centering & parfocality. All objectives are parfocal and parcentered to minimise refocusing. Comprehensive Anti-Fungus treatments are applied to every area, which affects the clarity of the observed images. This tropicalized treatment ensures image excellence for long periods in conditions favoring to fungus growth. Color corrected in all magnifications including high power objective, resulting in better-defined images. INCLINED OBSERVATION HEAD (Rotatable through 360 degree) With a special antifungus treatment With anti-reflection optical coatings of prisms (To enhance the brightness of the image) With interpupillary distance and diopter adjustments. A unique design of observation	60

	head consists of a special multiplayer coated beam splitter prism to ensure maximum transmittance / reflectance of light which not only provides bright illumination but also ensure equal division of light i.e. uniform illumination in both the eyepieces for ease of observation & eye comfort during extended usage. EYEPIECE (WIDEFIELD) (for observation) WF 10x (F.No.18) with a special anti-fungus treatment with multi-layer coatings. The unique optical design of the compensating eyepiece, provides relief from eye fatigue and renders color-compensated wide-field images of utmost clarity. Compatible with an optionally available eyepiece micrometer. ISO CERTIFICATION Manufactured in ISO 9001-2008 facility. ISO from a reputed international organisation CE CERTIFICATION Meet CE standards for safety											
2	Dissection Microscope Side & Top Interpupillary adjustment 1x & 3x. Objective. Two 10x & 20x wide field eyepiece. 10x 60x Magnification range. Dual coarse focus Knob. Upper tungsten & lower halogen bulb illumination. Translucent and opaque stage plate.	5										
3	Microtomes Rotatory Technical Specification: - Semi Automatic Rotary Microtome Programmable The Semi Automatic rotary microtome characterizes the faultless combination of cost effective competence and user comfort. It is the instrument of choice for clinical histology and histopathology application, as well as for industry quality assurance. Manual sectioning is enhanced by the high precision motorized specimen feed, which fallout in efficient operation with utmost section reproducibility. Improved user comfort results in maximum workspace efficiency and high throughput. Well located storage Area An incorporated storage tray makes certain subsidiary tools are in hand at all the times. Safety During Sectioning Protection is assured by incorporated black finger protection guard of the knife holder that exceptionally safeguards the blade edge. When used correctly the integrated finger protection guard rules out potential injuries because it can even remain on the blade edge during sectioning. Contented Operation All functions are controlled via touch sensitive buttons located on both sides of the block holder. Trouble Free Operation Ergonomics and user comfort are key concern for the placement of coarse feed wheel, which is located close to the operator. The mechanical trimming function, conveniently positioned next to coarse feed wheel, purge the need to turn coarse feed wheel during trimming Spacious Section Waste Tray The spacious section waste tray consistently gathers sectioning wreckage Accurate Specimen orientation with clear zero reference point This new orientation technique sets innovative standards of precision and is very effortless to operate. Calibrated controls make it easy to fiddle with a specified by assessable variable on the x / y axis for re - cuts Imaginative Knife holder adjustment The complete width of the knife could be used by using straight forward blade fastening mechanism Using the complete knife edge is cost effective, particularly in laboratories with high specimen throughout. Technical Data: - <table> <tr> <td>Section Thickness</td> <td>Section Thickness Setting range</td> </tr> <tr> <td>0.5 mm - 90 mm</td> <td></td> </tr> <tr> <td>Setting Values</td> <td></td> </tr> <tr> <td>Trimming Section</td> <td>from 0.5 mm - 1 mm in 0.5 mm increments from 1mm -99 mm in 1mm increments</td> </tr> <tr> <td>Thickness setting Range</td> <td>0.5 mm - 99mm</td> </tr> </table>	Section Thickness	Section Thickness Setting range	0.5 mm - 90 mm		Setting Values		Trimming Section	from 0.5 mm - 1 mm in 0.5 mm increments from 1mm -99 mm in 1mm increments	Thickness setting Range	0.5 mm - 99mm	2
Section Thickness	Section Thickness Setting range											
0.5 mm - 90 mm												
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Thickness setting Range	0.5 mm - 99mm											

Setting Values Specimen Retraction from 0.5 mm - 1mm in 0.5 mm increments from 1mm - 99 mm in 1mm increments Motorized Operation Varying with section speed Horizontal Specimen Feed Approx. 30mm Vertical Specimen Feed Approx. 70mm Sectioning Modes 1 Manual Mode Maximum Specimen Size 50mm(L) x 60mm(H) x 40mm(W) Specimen Orientation Horizontal:80, Vertical:80, Z:3600 Operating Voltages Nominal Supply Voltages 100V/120V/230V/240V Nominal Frequency 50/60 Hz. Dimensions basic instruments Width (including handwheel) 390mm Depth (including waste tray) 510 mm Height (with storage cover) 305mm Weight (with accessories) Approx. 26 Kg. General:- - Compact Ergonomic Overall Design - Accurate Specimen orientation with zero point reference - Easy shift between trimming and sectioning operation - Two motorized forward specimen coarse feed speeds - Automatic Specimen retraction - Section - Handed function universal cassette clamp - Absolutely new knife holder replica for disposable blades, with finger guard in contrasting color. - User safety incorporated into overall design - Smoothing - running hand wheel with incorporated quick - lock method - Accurate knife holder lateral movement - Ergonomically optimized hand wheel handle - Communication display incorporated in instrument housing enclosed - Enclosed micrometer mechanism - Spacious section waster tray - Wide range of accessories - Automatic retraction The equipment is supplied complete with :- i. Cassette holder ii. Knife holder base iii. Standard knife holder. iv. Object orientation unit iv. Section waste tray. vi. Microtome knife 15cm		
4	Microtomes Sledge, large cutting	2
5	Incubator Technical Specification:- GENERAL 1 USE 1.1 Clinical purpose: The incubators are used in laboratories to provide a controlled, contaminant-free environment for safe, reliable work with cell and tissue cultures by regulating conditions such as temperature, humidity, and CO₂. Microbiological incubators are used for the growth and storage of bacterial cultures. 1.2 Used by clinical department/ward Clinical labs TECHNICAL 2 TECHNICAL CHARACTERISTICS 2.1 Technical characteristics (specific to this type of device) Performance Parameters Purpose: Bacteriological incubator are used for the incubation of biological products under controlled conditions Type of Incubator : Bacteriological Incubator Capacity in liters : Minimum 40liters Material of Inner Chambers: SS 304 Material of Outer Chamber: CRCA (powder coated point) Steel Ambient Temperature in °C: 5°C above ambient to 60 °C (Bacteriological Incubator) Temperature Accuracy in °C: ±0.5°C Temperature Uniformity in °C : ±2°C Insulation: Glass wool Controller: Microprocessor based PID control	2

Handwritten signature



2	Digital Display of temperature in °C : Yes Type of Display : LED Type of Temperature sensor: PT100 Power supply: 220 V , 50 Hz Single Phase Door: Insulated door and fitted with heavy hinges and should have Toughened glass window Air circulation fan Type of Shelves: Removable Material of Shelves : SS wire mesh Number of shelves :2 Over temperature protection: Yes Safety alarm system : Yes Instruction manual to be provided : Yes Warranty in Years : 1 Standards Manufacturer should have ISO13485 certification: Yes Copies of all certifications and reports to be provided to buyer on demand at time of supplies: Yes Product should be CE/BIS approved ENVIRONMENTAL AND DEPARTMENTAL CONSIDERATIONS A)1)Operating condition: Capable of operating continuously in ambient temperature of 10 to 50 deg C and relative humidity of 15 to 90% in ideal circumstances. 2)Storage condition: Capable of being stored continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90%." B) User's care, Cleaning, Disinfection & Sterility issues 1)Disinfection: Parts of the Device that are designed to come into contact with the patient or the operator should either be capable of easy disinfection or be protected by a single use/disposable cover. 2) Sterilization not required." STANDARDS AND SAFETY 1. Should be FDA/CE/BIS approved product. 2. Manufacturer and Supplier should have ISO 13485 /ICMED 13485 certifications for quality standards. 3. Electrical safety conforms to the standards for electrical safety IEC 60601-General requirements (or equivalent BIS Standard) Calibration certificate from a NABL accredited lab.	
6	Paraffin embedding bath Manufacturer should be ISO certified. Embalming machine with its specialized noise less pump, provide suction and delivery at optimum pressure with a fluid delivery rate of 10Litres/hr with salient features such as SS Inner tank to store fluid capacity 10-15liters. Should be fitted with rotary compression suitable for embalming the cadaver with steel plate and required needle	2
7	Hot plates for flattening section	2
8	Hot air oven for drying slides 45c	2
9	Marking pencil	2
10	Refrigerators minimum (165 liters)	10
11	Cadavers	1
12	Dissection table with marble /or stainless steel top (6. 1x2x3) -- Dissection Hall The construction of these Table incorporates state of the art engineering heavy gauge stainless steel 304 grade and conveniences. The Table is made completely of stainless steel. The supporting surface features a high, profiled surround, The Table Top is equipped with sound-proofing and features a negative inclination arranged diagonally to the drain. The substructure consists of rugged, torsion resistant stainless steel profiles. Scientifically designed for maximum efficiency. Strong Stainless Steel Tubular Frame Work. • Top is covered with SS Sheet, with Centre Slope In cross Form. • Provision of Drainage Hole Connected with Waste water outlet Pipe. • Provision of SS Bucket and Sliding Tray. • Mounted on Rubber Stumps. Size:- (LxWxH) : 6ft 3inch x 2ft 6inch x 3ft 3inch	15
13	Dissection table with marble /or stainless steel top Half Standard Size -Dissection Hall The construction of these Table incorporates state of the art engineering heavy gauge stainless steel 304 grade and conveniences. The Table is made completely of stainless steel. The supporting surface features a high, profiled surround, The Table Top is equipped with sound-proofing and features a negative inclination arranged diagonally to the drain. The substructure consists of rugged, torsion resistant stainless steel profiles. Scientifically designed for maximum efficiency. Strong Stainless Steel Tubular Frame Work.	5

	- Top is covered with SS Sheet, with Centre Slope In cross Form. - Provision of Drainage Hole Connected with Waste water outlet Pipe. - Provision of SS Bucket and Sliding Tray. - Mounted on Rubber Stumps. - Size:- (LxWxH) : 6ft 3inch x 2ft 6inch x 3ft 3inch	
14	Stretcher — (Trolley tables) - Tubular frame work mounted on four swivelling castors 150mm dia. - Removable stretcher top made of mild steel with chrome plated tubular handles - Stainless Steel 	2
15	X - Rays plates/ CT/MRI	AS per Requirement
16	Drill machine Technical Specification - Drill head motor: 1.5 HP/1440 rpm - Elevating motors: 1 HP/ 144 rpm - Head Motor V belt: B 33X2 - Oesophagoscope - Lighting system, Processor unit - Medical grade monitor with Connecting Cpower Supply voltage - 230 V 50 hz - Printer connectivity - Suction Pump.	2
17	Hand saw, preferably metal Technical Specification - Should be high carbon steel blades , hard and durable, anti rust and smooth, which leads to less friction. - Blades should be chrome plated to prevent body fluid /chemical corrosion. - For HRC, Blade materials should reach 52 degrees and teeth reaches 60 degrees (+/- 3) - Chrome treatment, antirust smoothening should be done to reduce the friction. - It should be ergonomic and rust proof. - Special teeth design which should be sharp at edges. - Should be supplied with essential accessories	3
18	Band saw for sectioning body & limb Technical Specification - Width/Depth/Height: 900 x 600 x 1500 mm - Working height approx.900 mm - Cut height max. 210 mm - Cut width max.350mm - Should comply with Safety	1
19	Meat cutting machine for thin body section for gross anatomy sectional stud Technical specification: - Very useful for preparing specimens of large size in Anatomy and Forensic Departments. Fitted with a large moving table and extension table operated on four ball-bearing rollers. Also used extensively in meat packing, and wholesale fish industry, for handling swordfish and large halibutes etc. Specifications: Size ofcuttingtable 785 x 585 mm approx. Total Table Travel 1245 mm Extension Table 455 X 760 mm Size of Wheel 455 mm approx. Height 1 700 mm approx Motor Capacity: 1 H.P. Crompton/A.U.E. Make The table is made of thick S.S. sheet with special heavy axles for easy and firm movement. Supplied complete with one blade, starter, cord and plug. Suitable to work on 220 V, single phase, 50 Hz, AC supply. Spare / Optional Accessory : Blade for above.	1
20	Brain Knife Technical Specification: Knives should have premium quality. Standard size 12 inches High quality stainless steel with heat-treated and tampered blades. The blade should be sharp and easier tore-sharpen. Handl ematerial to be of S.S 304.to prevent corrosion.	2

21	X ray viewing lobby	3	AS per Requirement
22	Charts, diagrams, models		
	Models		
	1. Graafian follicle, ovulation, corpus luteum.		
	2. Schematic representation of events taking place during the first week of human development.		
	3. Development of the villus.		
	4. Villus at the end of the third week of the development.		
	5. Presomite embryo of 16 days.		
	6. 14 somites embryo (approximately 25 days).		
	7. 25 somites embryos (28 days).		
	8. Transverse section through embryo at various stages of development.		
	9. Human embryo at the beginning of the second month of development.		
	10. Development of Dizygotic twins, each embryo normally has its own amnion, chorion and placenta.		
	11. Development of the renal pelvis, calyces and collecting tubules of the metanephros at 6 week, 7 week, new born.		
	12. Relationship of hindgut and cloaca at the end of 5th week.		
	13. Development of the urogenital sinus into the urinary bladder.		
	14. T.S. Ovary at the 7 week of development showing the degeneration of the primitive sex cords and the formation of the cortical cords.		
	15. Genital ducts in the female at the end of the second month of development.		
	16. Formation of the uterus & vagina at various stages of development.		
	17. Indifferent stages of the external genitalia.		
	18. Development of external genitalia in the female at the 5 month and in the new born.		
	19. Descent of the testis; during the 2nd month, middle of the 3rd month, 7th month & shortly after birth.		
	20. Testis, epididymis, ductus deferens, and the various layers of the abdominal wall which surrounds the testis in the scrotum.		
	21. Human circulatory before birth.		
	22. Human circulatory after birth.		
	23. Development of the pharyngeal clefts and pouches.		
	24. Development of tongue.		
	25. The primitive gastrointestinal tract.		
	26. Representation of the migration of the thymus, parathyroid glands & ultimobranchial body.		
	27. Successive stages in the development of the trachea and lungs at the 3rd week, 4th weeks, 5th weeks and 6 weeks.		
	28. Development of liver.		
	29. Development of stomach.		
	30. Development of pancreas.		
	31. Frontal aspects of the face at 5 week embryo, 6 week embryo & 10 week.		
	32. Development of eye.		
	33. Development of ear.		
	34. Development of limb buds at 5, 6, & 8 weeks.		
	35. Formation of the vertebral column at various stages of development.		
	36. Septation of ventricle ant and bulbus cordis.		
	37. Formation of the atrioventricular valves and chorda tendineae.		
	38. Development of the umbilical & Vitelline veins at the end of 4th week, 5th week, 6th week & 3rd month.		
	HUMAN MODELS		
	39. Model of Larynx Anterior view, posterior view, side view and sagittal section.		
	40. Model of larynx deep side view.		

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| 41. Model of pharynx and larynx sagittal section |
| 42. Model of human eye in socket vertical section showing muscle optic nerves, crystalline lens, iris, cornea etc. Dissectable in 7 parts. |
| 43. Model of eye approximately 5 times life-size, this finely printed and numbered fibreglass divided into 7 parts: 2 parts outer eye, Retina and vitreous humor, 2-parts choroid, lens and cornea, 18 numbered key. Size 71x41x41. |
| 44. Model of ear large size showing external, Middle and inner ear dissectable in four parts. |
| 45. Model of ear sagittal section extra large and detailed model: all major structures & the temporal bone and a section of the auditory canals are removed. |
| 46. Model of six times enlarged made from vinyl rubber(Natural look) |
| 47. Nasal cavity and pharynx sagittal section viewed from medial side. |

Chart

Charts Size: - 28" x 26", Laminated and attached with durable strips. Anatomy charts

- | |
|--|
| 1. The Muscular system |
| 2. The nervous system |
| 3. The autonomic nervous system |
| 4. The vascular system |
| 5. The lymphatic system |
| 6. The respiratory system |
| 7. The female reproductive system |
| 8. The male reproductive system |
| 9. The digestive system |
| 10. The urinary tract |
| 11. The endocrine system |
| 12. The liver |
| 13. The spinal nerves |
| 14. The hair |
| 15. Hip & Knee |
| 16. The prostate |
| 17. The ear |
| 18. Pharynx and larynx |
| 19. Portal system |
| 20. Foetal circulatory system |
| 21. Clinically important blood vessel and nerve pathways Size: 28" x 26" |



22. Varicose veins Size: 20" x 26"

23. The female genital organs Size: 20" x 26"

24. The female breast Size: 20" x 26"

25. The human genotype Size: 20" x 26"

Big charts:

26. The male pelvic organ Size : 33.5" x 47"

27. The female pelvic organ Size : 33.5" x 47"

28. Menstrual cycle and the ovum implantation
Size : 33.5" x 47"

29. The Eye Anatomy Size : 33.5" x 47"

30. The human central nervous system
Size: 20" x 26"

30. The human central nervous system
Size: 20" x 26"

31. Head & Neck median section – II Size: 20" x 26"

32. Intra ocular structures –I Size: 20" x 26"

33. Temporal mandibular joint Size: 20" x 26"

34. Development of embryo in 1st week Size: 20" x 26"

35. Development of embryo in 2nd week Size: 20" x 26"

36. Development of embryo in 3rd week Size: 20" x 26"

37. Development of embryo in 4th week Size: 20" x 26"

38. Development of embryo in 5th week Size: 20" x 26"

39. Development of embryo in 6th week Size: 20" x 26"

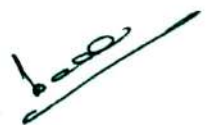
40. Development of embryo in 7th week Size: 20" x 26"

41. Foetus in 9th, 11th, 12th & 18th week of development
Size: 20" x 26"

42. Foetus in 19th, 23rd week of development and 7 month old foetus Size: 20" x 26"

43. Development of body cavities –II Size: 20" x 26"

44. Formation of cardiac loop Size: 20" x 26"		
45. Development of sinus venosus Size: 20" x 26"		
46. Formation of the cardiac septa in common atrium		
47. Formation of the septum in Atrioventricular canal		
48. Formation of septum in ventricles		
49. Development of arterial system		
50. Circulation before and after birth		
51. Stomach development		
52. Liver, gall bladder and pancreas development		
53. Mid gut and hind gut development		
54. Pronephros, mesonephros & metanephros & molecular regulation of the kidney.		
55. Development of male genital system		
56. Development of Female genital system		
57. Development of respiratory system		
58. Development of hand		
59. Development of neck		
60. Development of ear		
61. Development of eye Digital Charts on Histology: Size : 12" x 18"		
62. Different types of epithelia in selected organs		
63. Endochondral ossification, illustrating the progressive stages of bone formation (from cartilage model to bone) and including the histology of a section of formed bone.		
64. A section of brain and spinal cord with meninges.		
65. Comparision (Transverse section) of a muscular artery, large vein and three types of capillaries		
66. Location and distribution of lymphoid organs and lymphatic channels in the body.		
67. Different types of acini (serous acini, mucus acini and serous demiluons,), different duct types and myoeepithelial cells of a salivary gland)		



68. Structural differences between the wall of small intestine and large intestine. with emphasis on different layers of the wall.
69. A section from the liver and pancreas, with emphasis on liver lobule and the duct system of exocrine pancreas.
70. A sagittal section of kidney showing the cortex and the medulla with blood vessels and excretory ducts, including the pelvis and the ureter and histology comparison of the blood vessels, the different tubules of the nephron, and collecting duct.
71. Loose irregular and dense irregular connective tissue, adipose tissue.
72. Cancellous bones with trabeculae and marrow cavities; sternum (decalcified bone, transverse section) cancellous bone; sternum (decalcified bone, transverse section)
73. Compact bone, dried : An Osteon(Transverse section)
74. Smooth muscle layer of the small intestine (transverse and longitudinal sections); smooth muscle wall of small intestine (transverse and longitudinal sections)
75. Skeletal muscles of the tongue (transverse and longitudinal sections)
76. Cardiac muscle and cardiac muscle (longitudinal section)
77. Cerebellar cortex; molecular layer, purkinji's layer and granular layer
78. Lymph node (panoramic view)
79. Thymus gland (sectional view) and cortex and medulla
80. Spleen (panoramic view) , red and white pulp
81. Thin skin; epidermis and contents of dermis
82. Thick skin; superficial cell layers and melanin pigments
83. Tongue : taste buds,
84. Esophageal stomach junction and stomach; fundus and body regions (transverse section)
85. Stomach ; mucosa of fundus and body(transverse section)
86. Appendix (panoramic view, transverse section) and rectum (panoramic view, transverse section)
87. Pancreatic islet & pancreatic islet (special preparation) pancreas; endocrine (pancreatic islet and exocrine regions)
88. Intra pulmonary bronchus (transverse section) and terminal

100

	bronchiole (transverse section). 89. Section of a ureter wall (transverse section) 90. Urinary bladder: wall (transverse section) ; Urinary bladder mucosa (transverse section) 91. Hypophysis (panoramic view, sagittal section) Hypophysis : sections of pars distalis, pars intermedia, pars nervosa 92. Thyroid gland: canine(general view) Thyroid gland follicles : canine (sectional view) 93. Adrenal gland 94. Prostate gland and prostatic urethra 95. Prostate gland: glandular acini and prostatic concretions 96. Ovary(panoramic view) 97. Uterus : proliferative (follicular) phase 98. Uterus : secretory phase 99. Uterus: menstrual phase 100. Vagina (longitudinal section) 101. Inactive mammary gland, mammary gland during proliferation and early pregnancy	
23	Embryology models	AS per Requirement
24	Dissecting Instruments for cadaveric dissection 1 B.P.HANDLE NO.4 TO FIT BLADE 18-25 2 MAYO HEGGAR NEEDLE HOLDER 3 STANDARD DISSECTING FORCEPS PLAIN 4 STANDARD DISSECTING FORCEPS TOOTHED 5 STANDARD DISSECTING FORCEPS PLAIN 6 STANDARD DISSECTING FORCEPS TOOTHED 7 DIRECTOR PROBE POINTED WITH TONGUE TIE 8 MALLEABLE PROBES WITH EYE 9 KELLYS HAEMOSTATIC FORCEPS ST. 10 KELLYS HAEMOSTATIC FORCEPS CURVED	10 seats



	11 DRESSING SCISSORS SHARP X BLUNT STRAIGHT	
	12 DRESSING SCISSORS SHARP X BLUNT CURVED	
	13 MAYOS SCISSORS STRAIGHT	
	14 MAYOS SCISSORS CURVED	
	15 HALSTED MOSQUITO FORCEPS STRAIGHT	
	16 HALSTED MOSQUITO FORCEPS CURVED	
	17 IRIS SCISSORS STRAIGHT	
	18 IRIS SCISSORS CURVED	
	19 DISSECTING NEEDLE size: 1 - 1	
	20 DISSECTING NEEDLE size: 2 - 1	
25	Embalming machine 1 Manufacturer should be ISO certified. 2 Embalming machine with its specialized noise less pump, provide suction and delivery at optimum pressure with a fluid delivery rate of 10 Litres/hr with salient features such as SS Inner tank to store fluid capacity 1.0-1.5 liters. 3. Should be fitted with rotary compression suitable for embalming the cadaver with stellate and required needle	2
26	Virtual Anatomy Dissection Table Provide two complete human anatomical persons, one male and one female, and divide the human body into 11 human body organ systems, which are Reproductive system, Respiratory system, Lymphatic system, Cardiac system, Urinary system, Nervous system, Muscular system, Skeletal system, Digestive system, Skin system, Endocrine system. Each human body male and female whole-body anatomical model data consists of no less than 2000, all of which can be disassembled to control the anatomical structure and composition. Cutting tool to perform the dissection of the virtual human cadaver. Ability to perform dissection with layer by layer. Ability to change the color of the specific body part, make annotation being it free hand or text, take the screenshot or make the video of the whole class session by recording the screen itself. At last feature available to search for a specific body part and displayed on the X-Ray of the Virtual Human Cadaver with Annotations. Animation of the pumping heart with the blood flow and ability to have the view in Sagittal, Coronal and Transverse Plane. Anatomical models, including head, chest, abdomen, back, pelvis, shoulders, arms, elbows, forearms, wrists, palms, thighs, knees, legs, ankles, and soles, a total of 16 groups of high-definition 3D human anatomy. Three-axis view of human anatomy, which means 3D, sagittal plane (X), transverse plane (Y), coronal plane (Z), which is convenient for view in the current axis, and the depth of the slice can be adjusted by dragging adjustable from 0% to 100%. X-ray system, under any 11 organs, you can observe the relative position of the X-ray to the human body, and adjust the value from 0% to 100% to deep enordilute the X-ray picture, which is convenient for teach in gander plaining the position of the human body. Pre-Installed quizzes with more than 8000 questions and chance to design the quizzes according to the user's requirement. Virtual Endoscopy to navigate through the hollow organs of the virtual human cadaver with 108 real endoscopic videos. Radiological viewer with the ability to connect to the PACS of the hospital. Import all kinds of DICOM data including the BCD format. 400 pre-installed real case examples for the pre-surgical planning for the educational purpose only with the appropriate radiological measurement tools and also pre-surgical planning instrument Ability to re-construct the 2D DICOM data to 3D format in less than 15 seconds with the algorithm for auto-segmentation for better understanding. Histopathology Atlas with more than 350 real case examples separated in respective areas. The image format is ultra-high definition of 20,000x20,000 pixels. Image reading format: supports *.svs, *.jpg, *.png, *.tif, *.bmp and other image format files. Video reading format: supports *.mkv, *.mp4, *.avi, *.mov and other video format files. The images can be digitally amplified to up to a maximum of 20X. The image enhancement toolbar like brightness, contrast, sharpness, etc.	1

	65 inches UHD display with 3840x1080 pixels with the ability to convert from horizontal to vertical position. Intel i9, 32GB RAM, 8TB HDD with 1TB SSD.	10
	Plastic tank for storing soft and dissected parts	3
	Bones (Articulated) Original human bones, from single source, articulated scientifically as per the placement of the bone in the human body. Proper synthetic materials must have been put in the joint spaces. It must be certified by an Anatomist. Note: The original human skeleton supplier has to furnish license or permission issued by the Govt. Statutory body and has to furnish authorization to the bidder to submit bid and quote in the tender, however sole authorization is not applicable for this item.	5
	Bones (Dis - Articulated) Original human bones, from single source, dis-articulated scientifically as per the placement of the bones in the human body with colors of the muscles. Proper synthetic materials must have been put in the joint spaces. It must be certified by an Anatomist. Note: The original human skeleton supplier has to furnish license or permission issued by the Govt. Statutory body and has to furnish authorization to the bidder to submit bid and quote in the tender, however sole authorization is not applicable for this item.	110
0	Specimen (wet)	150
1	Jar	

DEPARTMENT OF PHYSIOLOGY

Sl No.	Name of the Items	Specification	No. of items
1	Demonstration eye piece	With Pointer to pin-point exact location	3
2	Double demonstration eye piece	i. Both Horizontal & Vertical Eyepiece with 10X magnification ii. With Pointer to pin-point exact location	3
3	Tuning fork time marker 100/sec	Metal Frequency 100/sec	2
4	Electrodes	i. Size/Dimension 32cm x 23cm x 22cm ii. Channels —2 iii. LCD Display iv. Type of 10 Units Combination	2
5	Spirit lamps	Of 2 pieces with wicks and cover cap	2
6	Marey's tambour	Stainless Steel Capillary Lever, 18 mm diameter	2
7	Perimeter Priestly Smith S/I.P.984 B & T	Charting the Field of Vision with Stand, Metal Arc, Chin Rest & Chart Paper etc.	10
8	Venous pressure apparatus	i. Manometer Tube with Graduation from -4 cm to +34 cm and attached to Three-way Tap ii. Provided with 120 cm long extension tube, fitted with female luer lock one end and male lock on other end iii. Latex free injection site for medication iv. Sliding Indicator to record previous reading v. Moulded Clamps with Latex-free Rubber Strings for fixation vi. Sterile, individually Packed with Peelable Pouch	1
9	Gas analysis apparatus, Halden's student type	Halden's Student Type; Power Supply — 240 VAC; Color - White; Automation Grade Semi Automatic	1
10	Van Slyke's apparatus manometric	Table Top Model; 170.0 cm black electrical cord, adjustable 90.2 cm metal rod	1
11	Sherrington Starling kymograph (electrically driven)	Material MS; Frequency 50 Hz; Voltage 230V; Power Source Electric	2
12	Low voltage unit for tapping 2 and 4 volts for stimulation	Therapy mode G, IG, F, SF; Pulse duration 0.01, 0.03, 0.1, 0.3, 1, 3, 10, 100	2
13	Electromagnetic time marker	Size 10 cm x 10 cm bag; Colour Bright and Assorted colour	2

14	Douglas bag, complete	Material Plastic; Shape Oval; Colour Blue	1
15	Mosso's Ergograph	Weight 5 kg; Material Stainless Steel	10
16	Clinical thermometer	Length 300 mm; Length of main scale 180 mm +/- 10%; Scale small division within 0.5° centigrade. Bulb length within 10 - 25 mm; Stem diameter; within 5.5 — 8 mm	60
17	Compass aesthesiometer	Material Stainless Steel; Number of Items 1; Part Number SPRING DIVIDER 8 INCH	30
18	Thermo-aesthesiometer	Horse hair carried in a holder; Hair length adjustable with graduated tube and protective cap	30
19	Algometer	Dial type (analogue); High precision and resolution; (PC Connectivity and software for Digital Model with inbuilt rechargeable battery)	25
20	Apparatus for passive movement	Target Body Part Elbow; Knee operation; Mode Electrical; Fixation Hold Time 0-9 Second; Treatment Timer 0-99 min; Flexion Angle 5-120 degree; Input Voltage 220 V	1
21	Knee hammer	Style Taylor Model	30
22	Stethograph	Kymograph Mary's Tambour; Corrugated Rubber Tube; Connecting Rubber Tube	25
23	Bicycle Ergometer	Type of Bicycle Upright; Input Analogue Control; Start Signal Heart Rate; Blood Pressure ECG Alarm Output; Work load Pedaling Speed Step marker; Power Supply 110-240 V; 50-60 Hz; Power Consumption 100 VA; Safety standard Class I, CE; Operation Mode Mechanical; Maximum User weight 150 Kgs; Pre-set Programs: 12 programs Size for screen and console; Size 13 x 17 inch; LED with printer	1
24	Olfactometer	Material Glass; Shape Triangular; Pattern Plain; Thickness 4-6 mm	1
25	Schematic eye	Giant Eye Model; Material PVC	1
26	Perimeter with chart (Lister's)	Diagnostic Instrument; Voltage 220 V; Power source Electric	2
27	Colour perception lantern Edridge green	Material Stainless Steel	1
28	Maddox rod	Red/White/Green rim and amp; copper handle; Length 70 mm	1
29	Newtons colour wheel	Electric Motor Color Mix	1
30	Tuning fork to test hearing 32-10000 cps(sets-100, 256, 512	Finish Type Mirror Finish; Material Stainless Steel	30
31	Dynamometer	Real-time Mode; Peak/Max Mode; Average Mode; Counting Mode; Integrated AUTO OFF function after 1 minute; Material Aluminum; Display Type Analogue; Exercise Equipment Temperature 80° C	1
32	Stop watch	Timing Range 999 min (Displayed as 999.00.0); Accuracy 0.1 second; Time Displayed mmm ss ts; Operational Keys START STOP & RESET	15
33	Myograph stand	Metal Base with Stand	2
34	Electronic stimulator	Housed with ABS modeled cabinet; Microprocessor Controlled Pulse Duration 0.3, 1, 10, 30, 100, 300 ms; Pulse Repetitive Frequency 0.3, 1, 3 seconds; Intensity Variations 0-130 Volts; Protection Class-I Complies with IEC 601-1 Option for built-in rechargeable batteries	1
35	Thermometers	Mercury Type	As Required
36	Balances	Capacity 600 gm; Accuracy 0.01 mg; Type of weight scale Digital; Power 10 watts; Operating Temperature	

		15-40 degree centigrade; Memory Function No; Battery Life No;	
37	Micro slides		
38	Glassware	Different types of Beakers	
39	Wright's Peak flow meter	Lower range minimum wright PFM (30-40 ppm) with sterilizable mouth piece	1
40	Snellen's Chart	Working distance 20 feet (6.1 meter); Size 23 x 35.5 cm; Polypropelene natural white sheet, appox. Thickness 0.8 to 1.0 mm; Multilingual instruction	2
41	Double Oxalate 250 Mg		10 Bottles
42	EDTA Powder 500 MI		2 Bottles
43	Rectified Spirit 400 MI		50 Bottles
44	xylene 500 MI		10 Bottles
45	Distilled Water 5 L		50 Bottles
46	N/IO HCl500 MI		50 Bottles
47	Cedar Wood Oil 25 MI		20 Bottles
48	RBC Diluting Fluid 500 MI		50 Bottles
49	WBC Diluting Fluid 500 MI		50 Bottles
50	Leishman's Stain 250 MI		50 Bottles
51	Antisera A+B+D 10 MI		10 Packets
52	Cardiac Jell		1 Bottle
53	2% Solution Of Methylated Spirit		
54	Dish washing powder		5 kg
55	Naphthalene		5 kg
56	Hand wash 500 MI		100
57	Sodium Citrate 3.8% 500 MI		1
58	Filter Paper		100
59	Wash Bottle		100
60	Dropping Bottle 60 MI		100
61	Cotton 400 Gm		100 Pieces
62	Microscope Glass Slide		200 Packets
63	Needle 24		500 Pieces
64	Cover Slip		10 Packets
65	Watch Glass/Petri dish		100
66	Stirrer		100
67	Glass Rod		50
68	Capillary Tube		200
69	Pasteur Pipette With Teats		12
70	Westergen's Pipette With Stand		5
71	Wintrobe's Tube With Stand		20
72	Enamel Tray 8" * 6"		100 Pieces
73	Enamel Tray 12"		6 Pieces
74	Enamel Tray		6 Pieces
75	Measuring Tape		30
76	Alcohol 400 MI		50 Bottles

DEPARTMENT OF BIOCHEMISTRY

Serial No.	Name of the items	Specification	Packing	Qty
1	Thermometer 0-250 degrees Celsius	i. Mercury Filled; Range 0-250-degreecelsius ii. Made of Glass iii. 30 cm long with plastic case iv. Quality printing on the body of thermometer	Each	5
2	Vacutainer Tube		pkt of 100	10
3	ACCUPENSE BOTTLE TOP DISPENSER 1 - 10ML		pkt of 1	1
4	TEST TUBES WITH RIM 15 X 150 MM		Each	200
5	TT.STAND 31-16mmCOL		pkt of 4	50
6	Test Tube holder		Each	100
7	CYLD: GRAD WITH POUR OUT CL'B' 100ML		Each	5
8	CYLD: GRAD WITH POUR OUT CL'B' 250ML		Each	5
9	CYLD: GRAD WITH POUR OUT CL'B' 500ML		Each	5
10	CYLINDERS MEASURING B CLASS 1 L		Each	3
11	FUNNELS PLAIN LONG STEM 60° 50 MM		Each	5
12	FUNNELS PLAIN LONG STEM 60° 100 MM	Mercury Filled; Range 0-250 degree Celsius ii. Made of Glass iii. 30 cm long with plastic case iv. Quality printing on the body of thermometer MM	Each	5
13	ERLYNEMAYER FLASKS, CONICAL, GRAD. 100ML		Each	100
14	FLK: ERLNMYR, CONICAL, NM 250 ML		Each	50
15	FLK ERLNMYR CON. NM GRADUATED-500 ML		Each	5
16	FLK ERLNMEYER, CONICAL- 1000 ML		Each	5
17	BEAKERS LOW FORM WITH SPOUT DB GR 100 ML		Each	10
18	BEAKERS LOW FORM WITH SPOUT DB GR 250 ML		Each	10
19	BEAKERS LOW FORM WITH SPOUT DB GR 500 ML		Each	10
20	BEAKERS LOW FORM WITH SPOUT DB GR 1 LTR		Each	10
21	PIPETTE, PASTEUR-230MM		Each	10
22	BOTTLES REAGENT SCREW CAP GR 100 ML		230MM	10
23	BOTTLES REAGENT SCREW CAP GR 250 ML		Each	5
24	BOTTLES REAGENT SCREW CAP GR 500 ML		Each	5
25	BOTTLES REAGENT SCREW CAP GR 1 L		Each	5
26	TUBES: CENTRIFUGE, CON BOT PLAIN 15ML		Each	5
27	CENTRIFUGE TUBE, CONICAL, PLAIN-10ML		Each	100
			10ml	100

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28	BUR: BORO FLO PTFE KEYS,CL 'B' 10X0.05ML		Each	5
29	R.STAND-22X15 SIDE HOLE		pkt of 1	5
30	BURETTE CLAMP SINGLE,PP		pkt of 6	5
31	CORK BORERS,BRASS,SET OF 3,HEAVY		Each	5
32	pH indicator paper pH 1.0 - 14.0 (with colour scale)		10 bkts	5
33	Handy Pack		pkt of 1	2
34	Tripod Stand		Each	10
35	WASH BOTTLE 500ml		pkt of 6	10
36	Glass Rod		Each	10
37	Sodium hydroxide pellets EMPLURA®		500 g	1
38	Copper (II) sulfate pentahydrate EMPLURA®		500 g	1
39	Nitric acid about 69% EMPLURA®		500 ml	1
40	Ninhydrin for analysis EMPARTA® ACS		10gm	1
41	Silver nitrate EMPLURA®		25 g	1
42	Picric acid Purified		500 g	1
43	Ammonium sulfate EMPLURA®		500 g	1
44	Chlorophenol red solution		125 ml	1
45	MOLISCH'S REAGENT		100 ml	1
46	Benedict's reagent (qualitative)		500 ml	1
47	BARFOED'S REAGENT		250 ml	1
48	SELIWANOFF'S REAGENT		125ml	1
49	DEXTROSE ANHYDROUS Extra Pure		500 g	1
50	D-FRUCTOSE Extra Pure		500 g	1
51	MALTOSE MONOHYDRATE 92% For Bacteriology		250 g	1
52	Sucrose (saccharose) EMPLURA®		500g	1
53	Starch soluble for analysis EMPARTA® ACS		500g	1
54	DEXTRINE WHITE		500 g	1
55	Iodine resublimed		100 g	1
56	Acetic acid glacial 99 - 100% EMPLURA®		500 ml	1
57	Sodium acetate trihydrate EMPLURA®		500g	1
58	Litmus paper Red		10 bkts	1
59	Chloroform EMPLURA®		500 ml	1
60	Sodium carbonate anhydrous EMPLURA®		500g	1
61	Potassium hydroxide pellets EMPLURA®		500g	1
62	Calcium chloride dihydrate EMPLURA®		500g	1
63	Hubble's solution (For the detection of Gb 125 ml 3822.00.90 12 350		125ml	1

64	Glucose Semiautoanalyser reagent Kit	2x200ml	2
65	Urea Semiautoanalyser reagent Kit	5x20ml	2
66	Creatine Semiautoanalyser reagent Kit	4x60ml	2
67	Cholesterol Semiautoanalyser reagent Kit	2x50ml	2
68	Triglyceride Semiautoanalyser reagent Kit	5x20ml	2
69	Protein Semiautoanalyser reagent Kit	5x50ml	2
70	Albumin Semiautoanalyser reagent Kit	5x50ml	2
71	Uric Acid Semiautoanalyser reagent Kit	5x20ml	2
72	Bilirubin Total Semiautoanalyser reagent Kit	4x50ml	2
73	Bilirubin Direct Semiautoanalyser reagent Kit	4x50ml	2
74	ALT Semiautoanalyser reagent Kit	5x20ml	2
75	AST Semiautoanalyser reagent Kit	5x20ml	2
76	Sulphur powder		2
77	Hydrochloric Acid		2
78	Sulphuric Acid		2
79	Hydrogen Peroxide		2
80	Strong Ammonia		2
81	Benzidine Powder		2
82	Bile Salt		2
83	Sodium Nitroprusside		2
84	Acetone		2
85	Autopipette fixed volume 100 μ L with tips		5
86	Autopipette fixed volume 200 μ L with tips		5
87	Autopipette fixed volume 500 μ L with tips		5
88	Autopipette fixed volume 1000 μ L with tips		5
89	Autopipette variable volume 10 -100 μ L with tips		5
90	Autopipette variable volume 100 -500 μ L with tips		5
91	Autopipette variable volume 200 -1000 μ L with tips		5

DEPARTMENT OF PHARMACOLOGY

Sl No	Name of Items Required	Number Required
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I. Clinical Pharmacy		
1.	Metered Dose Inhaler	10
2.	Spacer	10
3.	Rotahaler	10
4.	Nasal Spray	10
5.	Transdermal Patch	10
6.	Insulin Infusion Pump	10
7.	Insulin Pen	10
8.	Manikins For Demonstration of Iv Injection, Enema, Local And Intramuscular, Subcutaneous Routes.	10
9.	Iv Infusion Set With Stand, Infusion Bottle	10
10.	Samples Of Dosage Formulations Including Rational & Irrational FDC, Essential Medicine	10
II. Computer Aided Learning Lab		
11.	Computers With Standard Configuration Connected To Internet (Operating System — 1. Windows 10 or above 2. Preferable browser — Google Chrome latest 3. RAM — 16 GB 4. Processor- i5 or i7 5. hard Disk- 250 GB or above	25
12..	Computer Aided Learning Software (CAL) [Multiuser]	1

Department of Forensic Medicine and Toxicology			
SL NO	NAME OF THE ITEMS	Specification	QUANTITY
1	Anthro Cometic set including		02
	A) Folding metal rod upto 7ft B) Osteometric board C) Craniometer D) Mandibulometer E) Goniometer F) Vernier Calipers		

	G) Equipment for reporting height H) Weighing machine - Dial Human		
2	Digital pH meter		01
3	Refrigerator for storing chemicals	Double door 250 ltrs capacity	01
4	Slide warming table		01
5	Autopsy Dissection set		04
6	Digital BP Instrument		02
7	Stethoscope - Litmann		01
	MEDICOLEGAL WORK		
8	Cold storage for dead bodies (two body Mortuary cooler)	1. Manufacturer should be ISO certified. 2. Temperature Range: 2°C to 4°C 3. Temperature Control: Digital Micro-processor controlled 4. Temperature Display: LED / LCD Display 5. Internal & External Construction: SS 304 Grade Stainless Steel 6. Insulation: High Grade Polyurethane of thickness 60mm or more 7. Doors: Made of Steel Sheets with Magnetic Gasket & External Lock 8. Trolleys: Made of Steel and sliding on telescopic rails 9. Defrosting Type: Automatic 10. Evaporator: Internal evaporator system forced draught 11. Internal drainage: Required 12. Integral temp gauge: Required 13. Refrigeration System: Air cooled hermetically sealed compressor, CFC Free, ISI marked 14. Air Circulation: Forced Air Circulation 15. Alarm: High / Low alarm system 16. Internal Lighting: Waterproof fluorescent ceiling lamps/LED light 17. Locking System: Standard Key Locks 18. Power Supply: 220 Volts / 50 Hz, Single Phase 19. Other required accessories: Copper Stabilizer (150-280V), Loading Trolley, SS Body Tray, Data Logger, Temperature, Chart Recorder 20. Approx. Dimension (W×D×H)cm: 100×240×170cm	02

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9	Weighing machine for dead bodies	Technical Specification:- • floor level – 200 kg. • Digital display • SS 304 grade construction • Complete ss platform for easy cleaning and anti-staining • Platform size 2100 mm x 600 mm approx.. • Accuracy 20 gms. • Rechargeable battery back-up pack provided for usage in power failure	02
10	Weighing machine for organs		01
11	Weighing machine for fetus		01
12	Autopsy tables- with hot and cold waters stem	1.Table Top Stainless steel, Type 304, Satin Finish Should have dissecting area and sink 2.Dissecting Area Should have Grid Plates 3.Sink Should have Hydro-aspirator with reverse flow features and should have hot/cold water fixtures with wrist blade handles and gooseneck. 4.Vacuum Breaker 5.Faucets Should have sink rinse with hose fittings and hose hanger 6.Table Pedestal Stainless steel, Type 304, satin finish Pedestal Type 7.Ventilation: Down draft ventilation system 8.Electrical receptables: GFCI Type 220-240 volts, AC 50 Hz 9.Disposer Unit Should have Solenoid valve, vacuum breaker with off/on switch control and internal overload protector 1/2 to 3/4 HP motor. 10.Dimensions: 250-260 cm (Length) x 75-80 cm (Width) x 80-100 cm (Height) 11.Polyurethane Head Rest : Must be able to support neck while dissection. 12.Stainless Steel Centimetre Scale : Must be engraved type 13.Scale Support Socket : Must be able to hold the scale support bar steadily.	02



		14. Scale support Bar : Must be able to hold the dial type weighing scale. 15. Weighing Scale : Dial Type : Must measure upto 5 kg. 16. Polyurethane Dissecting Board : 2 feet x 1 1/2 feet x 3/4 inch, grained surface, white. 17. Power Supply : power input to be 220-240 VAC, 50 Hz fitted with indian plug. 18. Standards, Safety and Training : Should be European CE approved product Manufacturer should have ISO certification for quality standards.	
13	Stryker Type Autopsy saw with accessories		02
14	Hack saw with blades		02
15	Brain knives A) Pointed B) Blunt		02 + 02
16	Rib shear — left and right (Doyens)		02
17	Tooth extractor		02
18	Measuring tape — steel tape roll		02
19	Magnifying lens		02
20	X-Ray view box A) 4 in 1 B) 2 in 1		02 + 02
21	Hand set heat sealer		01
22	Rectal thermometer		02
23	Infrared thermometer		02
24	Instrument trolley		02
25	Stop watch		02
	MUSEUM		
26	Cylindrical glass jars (2 litres capacity)		10
27	Rectangular glass jars 5 litres capacity		10
28	Flex charts 3' x 2' with binding		15
29	Formalin		20 litres

30	Glycerine		5 litres
	GLASSWARES		
31	Glass slides		2 acketts
32	Cover slips		1
33	Test tubes		20
34	Spirit LAMP		05

DEPARTMENT OF PATHOLOGY

Sl. No.	Name of the items	Specification	Qty in No.
1.	Stop watching reading at %second	Stopwatch reading by 1/5 second	5
2.	Staining jars for slides	12 set Glass Jar	50
3.	Graduated cylinders for various capacities ranging from 100 cc to 1000 cc	100 ml 250 ml 500 ml 1000 ml	20
4.	Reagent bottles	100 ml 125 ml 250 ml 500 ml 1000 ml	20
5.	Dropping bottles	100 ml 125 ml	20
6.	Reagents	H & E Papaniculao Leishman Diff-Quik MGG Stain	
7.	Morbid Histology and Morbid Anatomy		
8.	Digital automatic camera > 5 megapixel		1
9.	Coplin jars		
10.	Balance for chemicals with weights		2
IV.	Microscopes	i) LED Binocular with Plan Acromat4x, lox, 100x(oil) ii) Inbuilt Battery Backup. iii) Eye piece: IC) x FOV 20 mm. iv) Condenser: 1.25 NA v) Nose piece: Fixed	

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		vi) Quadruple with inward tilt	
11.	For Diagnostics and Research work	Trinocular head microscope with Bright field, Dark field, Fluorescent and Polarizing facility, High end apochromatic lenses with camera with ultra HD TV > 52 inches and screen including software capable of bright field and immunofluorescence photography connectivity to projector and LED TV (atleast 55 inches Ultra HD	1
12.	Deca head Microscope with High end optics with HDMI multi output photographic camera (> 5MP) including software	With high end Optics with HDMI Multi output Photographic camera	1

Department of Microbiology

SI No.	Name of the item	Company	Unit
1.	Incubator electrical (large) (37 degree Celsius) Technical Specification:- GENERAL 1 USE 1.1 Clinical purpose: The incubators are used in laboratories to provide a controlled, contaminant-free environment for safe, reliable work with cell and tissue cultures by regulating conditions such as temperature, humidity, and CO ₂ . Microbiological incubators are used for the growth and storage of bacterial cultures. 1.2 Used by clinical department/ward Clinical labs TECHNICAL 2 TECHNICAL CHARACTERISTICS 2.1 Technical characteristics (specific to this type of device) Performance Parameters Purpose: Bacteriological incubator are used for the incubation of biological products under controlled conditions Type of Incubator : Bacteriological Incubator Capacity in liters : Minimum 40liters Material of Inner Chambers: SS 304 Material of Outer Chamber: CRCA (powder coated point) Steel Ambient Temperature in °C: 5°C above ambient to 60 °C (Bacteriological Incubator) Temperature Accuracy in °C: ±0.5°C Temperature Uniformity in °C : ±2°C Insulation: Glass wool Controller: Microprocessor based PID control Digital Display of temperature in °C : Yes Type of Display : LED Type of Temperature sensor: PT100 Power supply: 220 V , 50 Hz Single Phase Door: Insulated door and fitted with heavy hinges and should have Toughened glass window Air circulation fan Type of Shelves: Removable Material of Shelves : SS wire mesh Number of shelves :2 Over temperature protection: Yes Safety alarm system : Yes	Yorco	4

	Instruction manual to be provided : Yes Warranty in Years : 1 Standards Manufacturer should have ISO13485 certification: Yes Copies of all certifications and reports to be provided to buyer on demand at time of supplies: Yes Product should be CE/BIS approved ENVIRONMENTAL AND DEPARTMENTAL CONSIDERATIONS A)1)Operating condition: Capable of operating continuously in ambient temperature of 10 to 50 deg C and relative humidity of 15 to 90% in ideal circumstances. 2)Storage condition: Capable of being stored continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90%." B) User's care, Cleaning, Disinfection & Sterility issues 1)Disinfection: Parts of the Device that are designed to come into contact with the patient or the operator should either be capable of easy disinfection or be protected by a single use/disposable cover. 2) Sterilization not required." STANDARDS AND SAFETY 1. Should be FDA/CE/BIS approved product. 2. Manufacturer and Supplier should have ISO 13485 /ICMED 13485 certifications for quality standards. 3. Electrical safety conforms to the standards for electrical safety IEC 60601-General requirements (or equivalent BIS Standard) Calibration certificate from a NABL accredited lab.		
2.	Autoclave Overview Autoclave is used to sterilize all surgical equipment, Pharmaceutical accessories, Lab instrument needing Sterilization power of steam is used to kill bacteria, spores, and microbes Resistance to boiling water. Steam is heated to 121°C which is above the boiling point of water which is 100°C and very effectively sterilized the item. Yorco Autoclave Vertical is a double Wall electrical High Pressure Steam Sterilizer, most suited for Sterilizing OT instruments, S.S ware glassware and other Hospital items. Entire Construction is of superior Stainless Steel grade 304. Thick S.S 304 plate die pressed tightened by peripheral wing nuts and gasket is superior joint less, moulded Neoprene. Water level indicator, pressure safety valves, water inlet and drain valves are standards. Pressure rating is 10 to 20 PSI adjustable and Hydraulic testing is done at 40 PSI, which is double the rated PSI. Used for sterilization under saturated steam pressure at 15 PSI these are double walled units with inner chamber made of thick stainless steel and outer chamber made of stainless steel. Lid is made of thick gauge stainless steel with pressure gauge steam release valve and safety valves. Insulation Wall. Double Wall. Mount Type. Floor Mounted Autoclave.	Yorco	3

base

	No. Of Trays. 1 Tray. Automation Grade. Fully Automatic. Brand. YORCO. Approval Certificate. ISO 9001 2008. Temperature Range. UPTO 140. Pressure Range. 10 TO 20 PSI.		
3.	Hot Air Sterilizer These are designed principally to destroy Bacteria, Viruses, Fungus and Sterilize Surgical & Dental Instruments. Glass wares etc. by application of dry heat at temp. ranging between 140°C to 200°C as per IS 3119. Construction :- Hot air ovens are sturdy, with double walled construction. Inner chamber is made of Highly Polished Stainless Steel. Outer chamber is made of Mild Steel Sheet duly pre-treated in seven tanks process for surface treatment & are finished with durable Powder Coated Paint. 75 mm gap between the walls is filled with special grade glass wool for proper insulation and to avoid heat losses. Inner chamber is fabricated with ribs to adjust shelves to any convenient height. Supplied with 2 or 3 removable shelves. Shelves are made of polished SS Sheet. Insulated door is fitted with heavy hinges with a special design spring - loaded door closing device. Door gasket made of synthetic rubber compound instead of Asbestos. Hot Air Sterilizer (Oven) Features :- Heating Element :- Heating elements are made of high grade imported Nichrome wire which are insulated inside the porcelain beads and are generally placed suitably in Air Path for uniform temperature all over the space. Temperature Control :- Temperature is controlled by an electronic digital temperature controller-cum-indicator, provided with air Circulating fan for providing homogenous temperature through out the chamber with wide temperature 50°C to 250°C ovens for various applications. Ventilation :- Air ventilator ports provided on both sides at top to ventilate, gases and fumes if any. Control Panel :- The equipment is provided with a panel having a digital temperature control knob. ON/OFF switch, two pilot indication lights and provision for fixing the TIMER. Power Requirement :- Supplied with cord and plug. Suitable to operate on 220 V single phase, 50 Hz, AC supply. • Should bear an ISI mark • Company should have ISO certification	Yorco	2

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	• One year warranty and guarantee		
4.	Serum Inspissators Technical Specification • Temperature controller : Microprocessor based Auto Tune PID Digital temperature controller cum Indicator • Temperature range : From 5 °C above ambient to 95 °C • Temperature sensor : PT- 100 • Control Accuracy : ± 0.5 °C • Display : Digital LED display • Heating element : Immersion type water heaters • Heater capacity : 3.0 KW • Insulation : Glass wool insulation between inner chamber and exterior body to avoid thermal loss • Control panel : Consists of Mains switch, pilot lamp, Control switch and Temperature controller • Operates on : 230 Volts, 50 Hz, AC Power supply Standard temperature: 85 0 C Operating temp. range: ambient +5 to 90 0 C.; • Temperature display: LED; Display resolution: 0.10 C; • Capacity for up to 156 test tubes (16mm diameter x 150mm long) or 162 • Tank capacity: (approx.)45 lit; • Heat up rate 20 to 85 c; 3.5 hours; • Working area: length/width: (approx.) 820/594mm; • Overall dimensions (approx): L/W/H: 1040/600/380mm; • Over temperature protection: Fixed cut-out; • Approx.weight: 25-35 kgs. • Double walled. Inner SS 304 and outer GI. • Full length inner glass or acrylic door for clean view.	Yorco	2

Base

	• Outer metal door with magnetic gasket and lock. • Should bear an ISI mark • Company should have ISO certification • One year warranty and guarantee		
5.	Balance, Chemical	Wensar	2
6.	Lovibond Comparators		1
7.	Flasks flat bottom 50cc	Borosil	6
8.	Microscope oil-immersion moveable stage Abbe, condenser etc. MICROSCOPE FRAME Body : Aluminum die-cast body with all critical movements MICROSCOPE FRAME Body : Aluminum die-cast body with all critical movements based on ball-bearing & wireguides thereby ensuring smooth & precise manipulation. Enables easy manipulation <i>Rust-free metal body with high quality paint finish to ensures trouble free performance for years. Accuracy: Machining of components on high precision CNC machines to ensure better accuracy. Micron Sensitive mechanical movements: of specimen: Enables easy manipulation of specimen</i> Mechanical Stage: Co-axial low drive mechanical stage (125mm x 145mm) (+/-5mm) with traverse area of 50mm x 76mm (+/-5mm) Focussing System: Co-axial coarse & fine focusing control (Both Side) with a focus adjustment and find adjustment knobs, ergonomically designed and the system to prevent stage drift problems during focus drive. The knobs ergonomically designed & the system provides precision at all magnifications. Condenser Holder: Rack & pinion mounted condenser holder. Illumination Base: Built-in illumination base with pre-centred 6V20W halogen bulb coupled with an efficient collector lens system provide optimum brightness along the optical path. A conveniently positioned slider knob enables variable light control. Efficient light collector-lens system for optimum brightness. The ventilated light relay system resulting in the minimum heating of base. Meets International safety standards of CE. Nose Piece: The superior design Quadruple nosepiece with positive click stop based on precision ball-bearing mechanism, enables	Olympus	55

smooth objective change allows smooth rotation & easy access to specimens.

Sub-stage Condenser: Abbe condenser with aperture iris diaphragm,

N.A. 1.25, provided with a filter holder and blue filter.

With its compound lens system ensures that the traverse of light along the microscope's optical path is optimised. The built-in iris diaphragm enables maximum contrast of the specimen under observation.

OBJECTIVES Achromatic Objectives Made from high quality Japanes optical glass Precision engineered for parfocal & centred viewing High-grade optics with multi-layer coatings provides optimum brightness & contrast for long hours of comfortable viewing. Optics

are uniformly centered & interchangeable: in any hole of revolving nosepiece for centering & parfocality. All objectives are parfocal and parcentered to minimize refocusing. Comprehensive Anti-Fungus treatments are applied to every area, which affects the clarity of the observed images. This tropicalized treatment ensures image excellence for long periods in conditions favoring to fungus growth. Color corrected in all magnifications including high power objective, resulting in better-defined images.

INCLINED OBSERVATION HEAD (Rotatable through 360 degree) With a special antifungus treatment With anti-reflection optical coatings of prisms (To enhance the brightness of the image) With interpupillary distance and diopter adjustments. A unique design of observation

head consists of a special multiplayer coated beam splitter prism to ensure maximum transmittance / reflectance of light which not only provides bright illumination but also ensure equal division of light i.e. uniform illumination in both the eyepieces for ease of observation &

eye comfort during extended usage.

EYEPIECE (WIDEFIELD) (for observation) WF 10x (F.No.18) with a special anti-fungus treatment with multi-layer coatings. The unique optical design of the compensating eyepiece, provides relief from eye fatigue and renders color-compensated wide-field images of utmost

clarity. Compatible with an optionally available eyepiece micrometer.

ISO CERTIFICATION Manufactured in ISO 9001-2008 facility. ISO from a reputed international organisation



	CE CERTIFICATION Meet CE standards for safety		
9.	Refrigerators		3
10.	Micrometer eye pieces		2
11.	Micrometger stage		2
12.	Centrifuge, electrical high power	Remi	2
13.	Refrigerated centrifuge	Remi	1
14.	Distilled water plant -Single		2
15.	Distilled water plant – Double 1.5 Ltr./Hr.	Borosil	
16.	Distilled water plant - Double 2.5 Ltr./Hr.	Borosil	
17.	Distilled water plant - Double 4.0 Ltr./Hr.	Borosil	
18.	Oil immersion lens for students microscope		55
19.	Dropping bottle 60 ml.	Tarsons	500
20.	Dropping bottle 120 ml.	Tarsons	500
21.	Pneumatic trough	Polylab	
22.	Anaerobic apparatus		
23.	Electrophoresis complete set		3
24.	BOD Incubator		1
25.	Laminar flow table		2
26.	UV Lamp		1
27.	VDRL Shaker		1
28.	Computer Unit		2
29.	Overhead projector		1
30.	Water bath serological 37°C		1
31.	Water bath serological 56°C		1
32.	(-) 20°C Deep Freezer		1
33.	Elisa Readers dispenser and washer		1
34.	Thermometer any range	Omsons	12
35.	Glass Graduated Pipette 10 ml.	Borosil	
36.	Glass Volumetric Pipette 10 ml.	Borosil	

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37.	Burette 10 ml with boroflow	Borosil	
38.	Beaker 100 ml.	Borosil	
39.	Conical flask 100 ml.	Borosil	
40.	Petridis 150x25 mm (S Line)	Borosil	
41.	Reagent Bottle 250 ml. with screw cap	Borosil	
42.	Reagent Bottle with stopper 2000 CC	Borosil	12
43.	Reagent Bottle with stopper 1000 CC	Borosil	36
44.	Reagent Bottle with stopper 500 CC	Borosil	24
45.	Reagent Bottle with stopper 250 CC	Borosil	24
46.	Reagent Bottle with stopper 100 CC	Borosil	60
47.	Reagent Bottle with stopper 50 CC with S/C	Borosil	60
48.	Test tube hard glass 150x18mm Gross	Borosil	10
49.	Test tube hard glass 100x12mm Gross	Borosil	20
50.	Test tube hard glass 75x12mm Gross	Borosil	20
51.	pH Determination apparatus		2
52.	Distilled water plant all glass		1
53.	Binocular microscope MICROSCOPE FRAME Body : Aluminum die-cast body with all critical movements MICROSCOPE FRAME Body : Aluminum die-cast body with all critical movements basedon ball-bearing & wireguides thereby ensuring smooth & precise manipulation. Enables easy manipulation <i>Rust-free metal body with high quality paint finish to ensures trouble freeperformance for years. Accuracy: Machining of components on high precision CNC machines to ensure better accuracy. Micron Sensitive mechanical movements: of specimen: Enables easy manipulation of specimen</i> Mechanical Stage: Co-axial low drive mechanical stage (125mm x 145mm) (+/-5mm) with traverse area of 50mm x 76mm (+/-5mm) Focussing System: Co-axial coarse & fine focusing control (Both Side) with a focus adjustment and find adjustment knobs, ergonomically designed and the system to prevent stage drift	Olympus	2

Lee

	problems during focus drive. The knobs ergonomically designed & the system provides precision at all magnifications. Condenser Holder: Rack & pinion mounted condenser holder. Illumination Base: Built-in illumination base with pre-centred 6V20W halogen bulb coupled with an efficient collector lens system provide optimum brightness along the optical path. A conveniently positioned slider knob enables variable light control. Efficient light collector-lens system for optimum brightness. The ventilated light relay system resulting in the minimum heating of base. Meets International safety standards of CE. Nose Piece: The superior design Quadruple nosepiece with positive click stop based on precision ball-bearing mechanism, enables smooth objective change allows smooth rotation & easy access to specimens. Sub-stage Condenser: Abbe condenser with aperture iris diaphragm, N.A. 1.25, provided with a filter holder and blue filter. With its compound lens system ensures that the traverse of light along the microscope's optical path is optimised. The built-in iris diaphragm enables maximum contrast of the specimen under observation. OBJECTIVES Achromatic Objectives Made from high quality Japanses optical glass Precision engineered for parfocal & centred viewing High-grade optics with multi-layer coatings provides optimum brightness & contrast for long hours of comfortable viewing. Optics are uniformly centered & interchangeable: in any hole of revolving nosepiece for centering & parfocality. All objectives are parfocal and parcentered to minimise refocusing. Comprehensive Anti-Fungus treatments are applied to every area, which affects the clarity of the observed images. This tropicalized treatment ensures image excellence for long periods in conditions favoring to fungus growth. Color corrected in all magnifications including high power objective, resulting in better-defined images. INCLINED OBSERVATION HEAD (Rotatable through 360 degree) With a special antifungus treatmentWith anti-reflection optical coatings of prisms (To enhance the brightness of the image) With interpupillary distance and diopter adjustments. A unique design of observation head consists of a special multiplayer coated beam splitter prism to ensure maximum transmittance / reflectance of light which not only provides bright illumination but also ensure equal division of light i.e. uniform illumination in both the eyepieces for ease of observation &		
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54.	Staining troughs		60

Dept. of Community Medicine

Sl.no.	Name of Items	Specification	Quantity Required
1	Hydrometer, milk	IS 9585 2021	2
2	Balance for weighing food stuff (Capacity 2 Kg).	SECA 852	1
3	Salters Baby weighing machine	Neonate 235 6m (100 kg)	2
4	HarpenderCalipers (for skinfold thickness)	SFCH 80	2
5	Height measuring stand	120 cm	3
6	Smart TV 75	75 inch Android HDR 4K	1
7	Multimedia Projector with Screen or Interactive Flat Panel smart teaching board		2
8	Public Address system (2 portable for field-based activities and one each for RHTC & UHTC)		4sets
9	Horrock's Apparatus		3
10	MUAC tapes		10

11	Haemoglobinometer	IS 9430 1980	5
12	Sound level meter	IS 9779 1981	3
13	Water sampling bottle from any depth		1
14	Vaccine carrier		6
15	Craft water testing kit	WK7200	1
16	Treatment kits as per national health programs		3each
17	Iodine testing kit		10
18	Mosquito catching kit		1
19	Clinical Thermometer		10
20	First Aid Kit	IS 13115 1991	1

1000
200/10/22
SRM Medical College & Hospital
Bhawanipatna, Kalahandi