



No.F.1-8/Tender/2025-26/FMC  
Federal Medical College (FMC)  
Hanna Road G-8/4, Islamabad



**TENDER DOCUMENT**

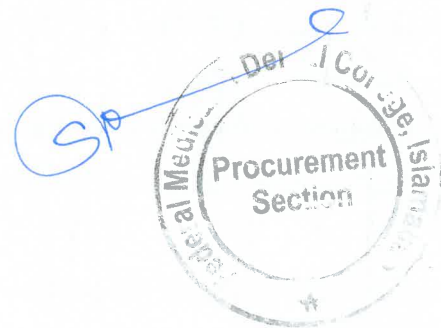
**FOR PROCUREMENT OF**

**MEDICAL & LABORATORY EQUIPMENT**

**FOR**

**FEDERAL MEDICAL COLLEGE**

**FY – 2025-26**



**MINISTRY OF NHR&C**  
**GOVT. OF PAKISTAN, ISLAMABAD**  
**051-9107724-5**



## TENDER CLAUSES

Tender will be **Single Stage - Two Envelopes procedure** (PPRA Procurement Code 36 - b) will be dropped by hand in the tender Box placed at Conference Room, Federal Medical College, Hanna Road, Sector G-8/4, Islamabad up to 1100 hrs on prescribed date. Addressed to Principal, Federal Medical College, Islamabad and mark / highlighted on outside.

- 1- The bid shall comprise a **Single stage - Two envelopes**. Each ***separately*** envelopes shall be marked as **“Financial Proposal”** and **“Technical Proposal”** in bold and readable letters to avoid confusion.
- 2- Initially only **“TECHNICAL PROPOSAL”** envelop shall be opened and the **“FINANCIAL PROPOSAL”** envelop shall be retained un-open in the custody of the procuring agency.
- 3- The procuring agency shall evaluate the technical proposal in a manner prescribed in advance, without reference to the price and reject any proposal which do not confirm to the specified requirements.
- 4- During the technical evaluation no amendments in the technical proposal shall be permitted.
- 5- The financial proposals of bids shall be opened publicly at time, date and venue announced and communicated to the bidders in advance.
- 6- After the evaluation and approval of the technical proposal procuring agency, shall at a time within the bid validity period, publicly open the financial proposals of the technical accepted bids only. The financial proposal of bidders found technically non-responsive shall be returned un-opened to the respective bidders.
- 7- The bid found to be the most advantageous/lowest shall be accepted.

All documents must be returned whether or not a tender has been submitted. Any respective correspondence concerning this tender shall be addressed to Principal, the competent authority, Federal Medical College (FMC), Islamabad quoting the reference as given above.

1.	Check List at page	03
2.	Evaluation Criteria	04
3.	General and Specific Terms and condition of tender from page	05-08
4.	Technical & Financial Bid proforma i.e. items list from page	09 onwards

All procurement procedure will be accomplished in accordance with the Public Procurement Rules 2004 of PPRA.



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Ensure that you have provided the following documents, labelled and referred correctly. Please highlight the relevant information in the attached document.

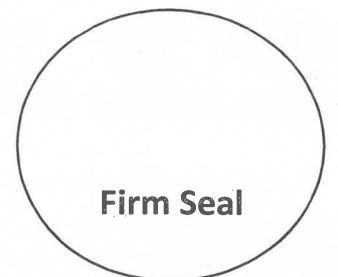
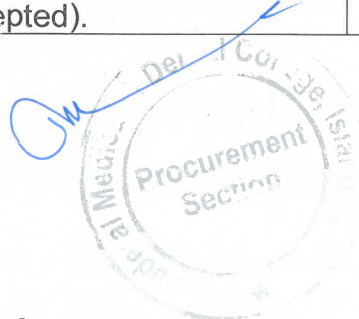
S.#	KNOCK DOWN CLAUSES	Attached? <input type="checkbox"/> / <input type="checkbox"/>	Placed At
1	NTN certificate	<input type="checkbox"/>	
2	Sales Tax certificate	<input type="checkbox"/>	
3	GST Deposit record	<input type="checkbox"/>	
4	Software Agency agreement / Sole authorization letter from Manufacturer with reference to current tender & with attention to Principal, Federal Medical College issued in the current week of applying.	<input type="checkbox"/>	
4	Literature of quoted equipment	<input type="checkbox"/>	
5	Firm's Registration Certificates Since foundation till date	<input type="checkbox"/>	
7	Document showing similar equipment/work supplied/completed in last 5 years <b>supported with end user satisfactory reports</b>	<input type="checkbox"/>	
8	Non-Black listing certificate on Affidavit	<input type="checkbox"/>	
9	Financial Position Record * Latest Bank Statement (01 Year) * Audit balance sheet (Last 03 Years) – Min Avg Turnover 50 Million * Income Tax returns (Last 03 Years) * GST and NTN Certificate	<input type="checkbox"/>	
10	Details of technical staff (on company's payroll) BioMedical Engineers BE / BS (At least 05 – PEC Registered) Diploma Engineer DAE (At Least 01) Medical Doctor (At least 01) – (Attach last 6 months Pay-slips for verification) Additionally, clearly specify the technical staff who are posted at the Islamabad office.	<input type="checkbox"/>	
11	Bid is valid for at least <b>180 days</b>	<input type="checkbox"/>	
12	Prices is quoted in Pak Rupees PKR	<input type="checkbox"/>	
13	Equipment is quoted with at least 1 Year warranty.	<input type="checkbox"/>	
14	Make, Origin and Manufacturer clearly mentioned in Bid	<input type="checkbox"/>	
15	Compliance Sheet Signed and Stamped by owner/representative.	<input type="checkbox"/>	
16	Vendors / Firms must submit <b>Earnest money in shape of CDR / Pay order of 2% of the Bid Amount</b> , in favor of Principal, Federal Medical College (FMC), Islamabad along with the Financial Bid and a copy with Technical bid also. (cross / open Cheque will not be accepted).	<input type="checkbox"/>	

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Date: \_\_\_\_\_





**EVALUATION CRITERIA**

Technical Evaluation Criteria				
Sr	Attributes	Max. Score		Criteria
1.	Specification Compliance	40	40	100% Fully Compliance = 40 Marks 95% Compliance = 30 Marks Below 95% = <b>Non-Responsive</b>
2.	ISO / CE Certificate (10 Each)	20	10	CE Certificate
			10	ISO 9001 Certificate
3.	Financial Strength verified through a Bank Certificate	20	15	Bank statement with more than Rs. 50 million annual Turnover for last three (03) year.
			05	Bank statement with more than Rs. 30 million annual Turnover for last three (03) year.
4.	Relevant POs with Satisfactory reports	15	2.5 Marks Each PO	Relevant projects Worth More than <b>Rupees 10 million</b> (PO & Installation / Satisfactory Reports Required)
5.	Office Networks (Rawalpindi / Islamabad)	05	05	Office Details must be attached (Rental Contract/ ownership Deed must be attached for verification)
<b>Grand Total</b>		<b>100</b>		

Note: 70% marks is compulsory for financial bid opening. Most advantageous bid (both technically & financially) will be selected for issuance of Purchase Order (P.O).

*Ghe*  
Procurement  
Section



## TERMS & CONDITIONS

### ➤ Instructions for Filling of the Contract Documents

1.	<b>Sealed Tender (Single Stage two envelop procedure)</b> is to be submitted in the name of Principal, Federal Medical College, Islamabad and will be dropped in the Tender Box by hand in the concerned department, before the specified date and time of opening in any case. Envelop would be marked as <b>Tender No. _____</b> <b>Bid for _____.</b>
2.	Vendors / Firms will drop submit their in form of computerized print duly signed & stamped before the CPC and also softcopies through E-PADS (on PPRA website). Hand Written, Typed on Manual Typewriter and Typed on Electronic Typewriter bids shall not be accepted and same will be rejected at the time of opening the tenders without any notice. Erasing and overwriting is liable to rejection of bid of relevant item. The columns against items which are not being quoted should be written <b>N.Q (Not Quoted) or X</b> in Technical bid.
3.	Vendors / Firms are <b>not allowed to change the Serial No and specification(s) of Tender schedules</b> at any cost. In case of non-compliance, complete bid or item (s) will be cancelled.
4.	Any conditional, ambiguous or incomplete offer in any respect shall be rejected. No supplementary or revised offer after the opening of tender shall be entertained.
5.	If the Vendors / Firms quoting two or more brands of item in one line / column shall be liable to rejection.
6.	Vendors / Firms will must submit <b>Earnest money in shape of CDR / Pay order of 2% of the Bid Amount</b> , in favor of Principal, Federal Medical College (FMC), Islamabad along with the Financial Bid and a copy with Technical bid also. (cross / open Cheque will not be accepted).
7.	The successful Vendors / Firms will submit <b>PERFORMANCE GUARANTEE</b> in the form of <b>PG / CDR / Pay order @ 5% of total Price of supplied items</b> shall be submitted for a period of 365 days with <b>100% delivery</b> , in favor of Principal, Federal Medical College (FMC), which will be released / funded on providing of NOC from Store Keeper duly attested by the Principal / HOD / DD (Admin) on completion of successful contract. (cross / open cheque will not be accepted)
8.	The Vendors / Firms will submit correct Postal Address with Land Line Telephone Number, Cell Number and E-mail address at their letter pad, if required.
9.	Technical Brochures / Brand Literature, Country of Origin of quoted item/ material must be attached with the bid where applicable.
10.	Vendors / Firms must attach with Technical Bids all attested relevant papers i.e. <b>Copies of CNIC, GST &amp; NTN Registration, Experience Certificate, Bank Certificate (minimum 01 year)</b> to the effect that financial position of the Vendor / Firm is sound with last 01 year Bank Statement along with copy of Pay order/ CDR in form of Computerized Print sealed in envelop. Soft Copies will be requested to be submitted as and when required. Also an affidavit will be submitted by the vendors to the effect that Vendors / Firms have never been black listed and undertaking as per clause # 3 of Specific Terms and conditions. All participating vendors/ Firms must return the Tender Documents i.e. Terms & Conditions duly signed & stamped on each page.
11.	The Vendors / Firms will definitely mention in the Technical & Financial bids the brand name against multi branded items.

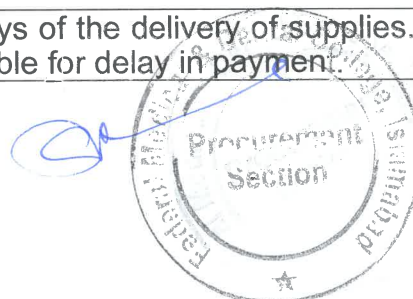


## GENERAL TERMS & CONDITIONS

1.	The contract will be valid for <b>01 year from date of commencement</b> & will remain in-force till the finalization of the new contract. However, the contract can be extended as per PPRA Rules.
2.	Bid validity period shall be till <b>31-12-2026</b> .
3.	Earnest money will be forfeited if a bidder withdraws his bid during the period of bid validity.
4.	The rates quoted in the financial bid proforma i.e. items, list will be final, and no change therein will be accepted after the tenders are opened.
5.	The tender will be approved item wise where applicable.
6.	The sample (s) of items has to be presented by the Vendors / Firms for verification of specifications. The Departmental Committee is authorized to approve without sample presentation if not required by virtue of its well-known brand name.
7.	The approved rates will be valid for the whole contract period.
8.	The successful Vendors / Firms will supply the requisite items in full, even their bills / payment are delayed due to some unavoidable circumstances. Further the vendor will also give the undertaking in this regard with the bidding documents.
9.	Taxes will be deducted according to the existing Government rules /policies. Supplier has to submit any other liable tax receipts if applicable.
10.	The supplies of required Items will be made during official working hours of FMC. The Supplies of should be made within specified period mention in the supply order.
11.	All the regulations / rules framed / enforced by the Federal Government/PPRA/ Ministry of NHR&C from time to time will be binding upon the Vendors / Firms.
12.	In case of any dispute, the Principal, Federal Medical College (FMC), will be the final Authority.
13.	The Principal, Federal Medical College (FMC), Competent Authority of FMC reserves the right to accept or reject any tender / all tenders as per PPRA rules.

## ➤ SPECIFIC TERMS & CONDITIONS

1.	In case the successful Vendor / Firm, who is awarded the tender, refuses to execute the Tender and will be treated according to the Penalties clause # 2.
2.	All items will be received at FMC Islamabad.
3.	The successful Vendors / Firms should submit <b>an undertaking on judicial paper for the items of same specification / quality / brand</b> etc that they will be regular in supply on approved rates during the whole contract period.
4.	<b>Sub-standard Items</b> not as per sample items will be liable to rejection.
5.	Vendors / Firms once awarded a tender will be responsible to keep contact personally or by a representative with the relevant section i.e. General Stores for and delivery within due time. Non-compliance to a registered posted letter on given Address / Telephone Number will be considered noncompliance of the Supply Order as per preceding clauses of penalties.
6.	Orders placed shall be delivered in full. No partial supply shall be accepted.
7.	Bills of the supplies will be submitted within 07-10 days of the delivery of supplies. For late submission of bills, FMC will not be held responsible for delay in payment.





➤ **RESPONSIBILITIES**

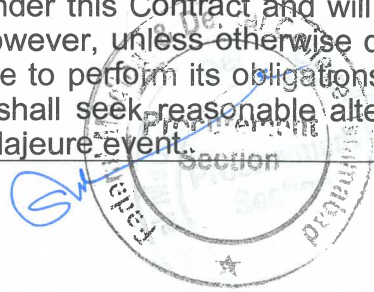
1.	All items supplied will be in accordance with the specifications as laid down in the Tender Schedules.
2.	In case of any discrepancy, less weight, short supply or not as per approved sample etc, the supplier will be held responsible under the Penalties Clause # 1.
3.	FMC reserve the right to claim compensation for the loss caused by the delay in the delivery of supplies and such claim may be in the form of risk purchase or imposition of penalty.

➤ **PENALTIES**

1.	<p>Repetition of incomplete supplies or delay in services will render the Vendors / Firms liable to penalty as per Penalties Clauses:-</p> <p><b><u>Non-Compliance of Supply Order.</u></b></p> <p><b>If the Supply Order is not completed within stipulated period one or more of the following penalties can be applied against the Vendor / Firm according to the gravity of situation.</b></p> <p>A penalty @ <b>0.25%</b> per day on the total amount of the supply order shall be imposed. Risk Purchase will be made at the cost of Vendor / Firm and amount will be deducted from the bills of Vendor / Firm.</p>
2.	<p>If supply order is not completed after issuance of three reminders, the contract of the Vendor / Firm will be treated as cancelled and the order for supply of item (s) will be placed to the next lowest bidder with the approval of the Competent Authority i.e. Principal FMC, with the implementation of following clauses:-</p> <p><b>a. The Earnest Money (CDR / Pay Order) of the Vendor / Firm will be forfeited.</b></p> <p><b>b. The Vendor / Firm will be debarred for business at FMC for that year.</b></p> <p><b>c. The Vendor / Firm will be debarred for business at FMC forever.</b></p> <p><b>d. The Vendor / Firm will be blacklisted.</b></p> <p>In case of any complaint about the penalty (s) imposed on the firm, the firm can appeal against the decision to the Chairman Grievance Redressal Committee within 15 days of the issue of penalty letter. After expiry of foresaid period, no appeal will be entertained.</p>

➤ **FORCE MAJEURE**

1.	<p>For the purposes of this clause Force Majeure means an act of Almighty or an event beyond the control of the Vendor and not involving the Vendor's fault or negligence directly or indirectly purporting to miss-planning, mismanagement and / or lack of foresight to handle the situation. Such events may include but are not restricted to acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, earthquakes, epidemics, quarantine restrictions and freight embargoes. If a Force Majeure situation arises, the Vendor shall promptly notify the purchaser in writing with sufficient and valid evidence of such condition and the cause thereof. The Force Majeure Committee will examine the pros and cons of the case and all reasonable alternative means for completion of Supply Order under this Contract and will submit its recommendations to the Competent Authority. However, unless otherwise directed by the purchaser in writing, the Vendor shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek reasonable alternative means for performance not prevented by the Force Majeure event.</p>
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➤ **ARBITRATION AND RESOLUTION OF DISPUTES**

1.	The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation and disagreement or dispute arising between them under or in connection with the Contract.
2.	If, after thirty (30) days from commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute, either party may acquire that the dispute be referred to the Arbitrator to resolution.
3.	The Principal, FMC will be the sole arbitrator. In case of any dispute between parties regarding the measurement and quality of work or any other issue the matter shall be referred to the Principal, FMC, who or his nominee shall act as sole arbitrator. The decision of the sole arbitrator shall be final and binding on both the Parties.

➤ **CONSENT OF THE BIDDER**

I / We have read whole Tender documents carefully and agree with the all the above-mentioned terms and conditions.

Name of Firm \_\_\_\_\_

Name of Owner \_\_\_\_\_

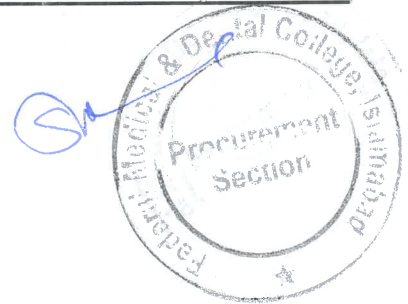
Signature \_\_\_\_\_ Stamp \_\_\_\_\_

Correct Postal Address \_\_\_\_\_

Cell Number \_\_\_\_\_

Landline Number \_\_\_\_\_

Email Address \_\_\_\_\_

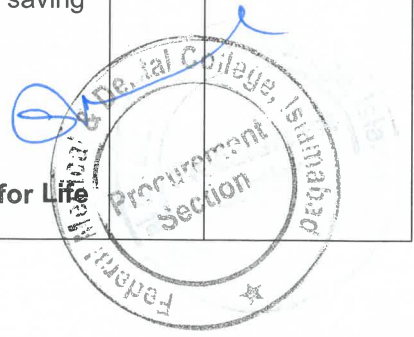




**TECHNICAL OFFER**

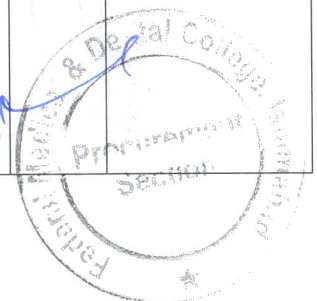
Technical Offer for Supply of **Medical & Lab Equipment** for  
**Federal Medical College**

S. No.	Name of Equipment	Specification	Qty.	Item Quoted Yes ✓ / No X
1.	3D Anatomy Dissection Table	<p><b>Anatomy Virtual Dissection Table</b>  <b>Country of Manufacturer: Pakistan</b></p> <p><b>Technical Features</b>            The Anatomy virtual dissection table must be a 75-inch display with 4K resolution and an intuitive capacitive touch interface that enables users to interact seamlessly with high-resolution visualized data, smoother navigation and unmatched precision. The screen must support vibrant colors, exceptional picture depth, and bold contrast. And ensures every intricate anatomical detail down to microscopic structures must be clearly visible that enhancing the overall learning experience through virtual cadaveric dissection and detailed visualization of human anatomy.</p> <p><b>Hardware Includes:</b></p> <ul style="list-style-type: none"> <li>• MultiPoint Touch Screen &amp; 75 Inches 4K resolution screen with Tempered glass</li> <li>• Movable via motorized system Horizontal &amp; Vertical motion</li> <li>• Must support switching to a Smart Board for classroom lectures.</li> <li>• Can be easily projected</li> <li>• <b>Processor:</b> Intel Core i7 / i9 (Strictly 13th Generation or newer) or AMD Ryzen 9 equivalent.</li> <li>• <b>RAM:</b>32 GB DDR5 or above</li> <li>• <b>Storage:</b> Minimum 1 TB NVMe SSD (for fast OS/Software booting) + 2TB HDD (offline data + 3D models storage).</li> <li>• <b>GPU:</b> Dedicated graphics card strictly NVIDIA RTX 4070 Ti or RTX 4080 (16GB or above for rendering 3D anatomy).</li> <li>• <b>Operating System:</b> Windows 11 Pro (Licensed)</li> <li>• Open platform to receive other software</li> <li>• Trolley base with wheels</li> <li>• UPS for power backup</li> </ul> <p><b>Placement Convenience:</b>            Must be have tilting option in table for positioning motorized elevation for height adjustment – It should be used as Vertical (Landscape) &amp; Horizontal (Table)</p> <p><b>Bookmarks:</b>            Must capable of case preparation before class and saving the work to a homework or next class.</p> <p><b>Projector / Monitors</b>            Possible to connect with Project /external screens.</p> <p><b>Software module include:</b>            o Anatomy Learning Platform - <b>Software License for Lifetime With Offline Access</b></p>	01	





S. No.	Name of Equipment	Specification	Qty.	Item Quoted Yes ✓ / No X
		<p><b>Anatomy Learning Platform</b></p> <p>This system is included a modular software platform which is specifically designed for anatomical teaching, allow the users to visualize and study medical images for the purpose of virtual dissection and in-depth exploration of human anatomy. This software is equipped with advanced tools for visualization, interaction, and analysis, utilizing an integrated Anatomical Atlas, Virtual 3D Cadaver, and medical imaging capabilities, all is to be enhanced with photorealism.–It enables detailed body analysis through both 3D and planar imaging, making it a comprehensive and intuitive solution for health education. It features:</p> <ul style="list-style-type: none"> <li>● A Virtual 3D Human Cadaver</li> <li>● A complete Human Atlas, covering all systems and structures</li> <li>● A Radiological real case studies</li> <li>● Integrated Visualization: Combining multiple anatomical or imaging data (e.g., 3D models + radiology scans) into a unified view enabling the simultaneous display and, 3D anatomical models, and virtual cadaver data within a single screen</li> <li>● <b>Offline Access:</b> Designed to operate without a constant internet connection for core 3D rendering and data manipulation.</li> <li>● Cytology/ Histology and Slide Viewing Modules</li> <li>● Layer Dissection &amp; Cross-Section Views</li> <li>● Developmental anatomy</li> <li>● Capability to import any type of media, enabling comparative studies and custom learning experiences with just one click</li> <li>● Ability to <b>cut, dissect, and explore</b> internal morphology in detail, adding <b>custom measurements and annotations</b> for a deeper learning experience.</li> <li>● Comparative anatomy through simultaneous opening in different sections, Loading various file formats such as images, videos, documents, and much more, medical imaging: MRI, CT, X-ray and other files in, as includes:</li> </ul> <p><b>Bodies &amp; System:</b>            To learn about the human anatomy interactively through the male and female anatomical atlases, and through the virtual cadaver - a 3D reconstruction of a real human body. The macroscopic study of the human body is organized in complete anatomy, which presents the systems and anatomical parts in an integrated way; systemic anatomy and regional anatomy, which study structures that form organic systems and anatomical regions.</p> <p><b>Human Body</b></p> <ul style="list-style-type: none"> <li>• Real human body</li> <li>• Safe, clean, and cost-efficient alternative to cadaver labs</li> <li>• High-resolution images with preserved color and structure</li> <li>• Interactive dissection with labeled tags</li> </ul>		

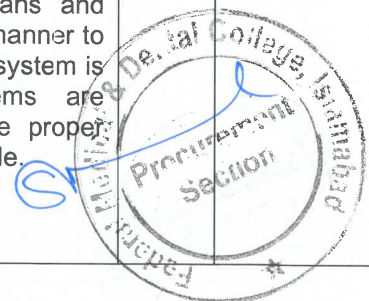




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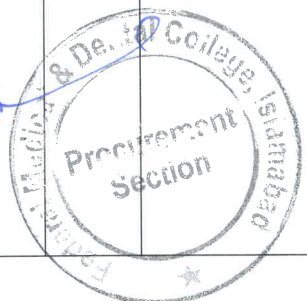


<b>S. No.</b>	<b>Name of Equipment</b>	<b>Specification</b>	<b>Qty.</b>	<b>Item Quoted Yes ✓ / No X</b>
		<ul style="list-style-type: none"> <li>• Custom annotations and measurements</li> <li>• Multiplanar (MPR) and 3D reconstructions</li> <li>• Complete tomography database</li> </ul> <p><b>Complete Anatomy</b></p> <ul style="list-style-type: none"> <li>• Regional (Topographic anatomy)</li> <li>• Systemic Anatomy</li> </ul> <p><b>Complete Anatomy</b> This module is enabled the study of human morphology and anatomical organization through the observation and analysis of macroscopic structures. It is integrated structural analysis with the functional understanding of body parts, considering environmental, genetic, and temporal factors that influence formation and response mechanisms. The content is to be categorized into two primary perspectives:</p> <ul style="list-style-type: none"> <li>• Organ Systems</li> <li>• Anatomical Regions</li> </ul> <p>It is included representative anatomical models of both male and female bodies, along with a Virtual Male Cadaver. Key features of this module include:</p> <ul style="list-style-type: none"> <li>• Over 2,500 labeled structures from all anatomical systems</li> <li>• Divided into at-least 12 anatomical systems and 9 anatomical regions</li> <li>• More than 200 labelled parts for 3d tissue segmentation</li> <li>• Separate models for Male and Female anatomy</li> <li>• A real human body, sectioned into more than 1,800 ultra-high-resolution slices, digitally reconstructed in 3D</li> <li>• The Virtual Cadaver retains natural coloration, is segmented and mapped, allowing for complete visualization of internal structures</li> <li>• The dataset comprises CT images of the entire body and five series of high-definition RGBA images, including four regional series (head/chest, abdomen/pelvis, thighs/knees, and legs/feet) and one complete-body series.</li> </ul> <p><b>System Coverage</b> This module offers a comprehensive, anatomically accurate, and interactive learning experience for the study of human anatomy in educational and clinical settings. This module focuses on the analytical study of the human body's organ systems, grouping together organs and anatomical structures that work in an integrated manner to perform specific biological functions. While each system is responsible for a distinct task, all systems are interconnected, working together to ensure the proper functioning and survival of the organism as a whole.</p>		



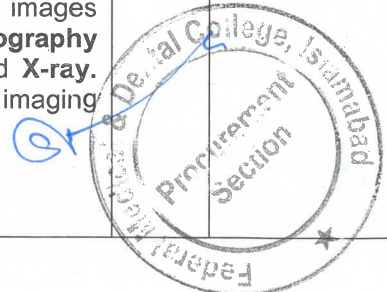


S. No.	Name of Equipment	Specification	Qty.	Item Quoted Yes ✓ / No X
		<p>This module covers the following at-least 12 anatomical systems:</p> <ol style="list-style-type: none"> <li>1. Arterial</li> <li>2. Venous (Cardiovascular)</li> <li>3. Articular</li> <li>4. Digestive</li> <li>5. Endocrine</li> <li>6. Skeletal</li> <li>7. Lymphatic</li> <li>8. Muscular</li> <li>9. Nervous</li> <li>10. Respiratory</li> <li>11. Integumentary</li> <li>12. Urogenital</li> </ol> <p>This structured approach provides a comprehensive understanding of how individual systems contribute to and interact within the larger biological framework of the human body.</p> <p><b>Cells and Tissues:</b>            This module allows the users to navigate the cells of the human body using interactive 3D models, offering an in-depth view of cellular structures and organelles, along with their specific functions across different cell types. In addition, the module includes a collection of high-resolution histological slides, enabling users to explore various body structures at the microscopic level, including glands, organs, and tissues. This immersive approach enhances the understanding of both cell and histology, supporting foundational and advanced medical education.</p> <p><b>Histology</b>            The <b>Slides Module must</b> have an extensive collection of <b>histological slide images</b> for download in JPEG format. It should also feature an <b>interactive annotation tool</b>, offering a variety of color and brush options for marking and highlighting key structures. This module helps for teaching <b>microscopic anatomy and histopathology</b></p> <p><b>Histological Slides</b>            Visualization and analysis of microscopic structures</p> <ul style="list-style-type: none"> <li>• High-resolution digital slides covering glands, organs, tissues, and systems</li> <li>• Normal and pathological samples</li> <li>• Zoom and annotation tools</li> <li>• Side-by-side comparison</li> </ul> <p>Interactive a notation and note-taking tools</p> <p><b>Cytology</b>            It offers an immersive, interactive exploration of cellular biology through 3D content, divided into two key categories: Cells and the Cell Membrane. This module enables users to visualize and understand the structure, function, and characteristics of various cell types in high detail.</p>		





S. No.	Name of Equipment	Specification	Qty.	Item Quoted Yes ✓ / No X
		<p>Users can explore the following cell models:</p> <ul style="list-style-type: none"> <li>● Immune System Cell</li> <li>● Neuron</li> <li>● Adipose Cell</li> <li>● Blood Cell &amp; Grouping</li> <li>● Muscle Fiber</li> <li>● Thyroid Follicle</li> </ul> <p>Functional and structural visualization</p> <p><b>Bodily Functions and Development</b></p> <p>This module is enabled the study of human physiology and embryology through immersive 3D virtual content, offering a clear and interactive understanding of key physiological processes and developmental stages. It must allow the users to:</p> <ul style="list-style-type: none"> <li>- Visualize the functioning of major body systems</li> <li>- Explore embryonic and fetal development, from the 4th week of gestation to birth</li> </ul> <p>By combining visual learning with scientific accuracy, this module must enhance comprehension of complex biological functions and developmental milestones, making it an essential tool for health science education.</p> <p><b>Embryology:</b></p> <p>It follows embryonic and fetal development from oogenesis and spermatogenesis through to birth using interactive 3D animations that illustrate both the Embryonic Period and the Fetal Period of development. This immersive module allows the users to visualize and understand the complex stages of human development in a clear, engaging way.</p> <p><b>Physiology</b></p> <p>It explores the functioning and normal functions of the human body through interactive 3D virtual content:</p> <ul style="list-style-type: none"> <li>● Cardiac Cycle of the Heart</li> <li>● Muscle Fiber Contraction</li> <li>● Generation and Conduct of Action Potential</li> <li>● Hematology</li> <li>● Lung Ventilation</li> </ul> <p>This interactive module provides a dynamic and visual approach to understanding essential physiological processes.</p> <p><b>Radiology:</b></p> <p>A comprehensive system for viewing DICOM images with advanced tools for managing radiological studies and clinical cases. Must have vast DICOM studies and images from various modalities, such as <b>Computed Tomography (CT), Magnetic Resonance Imaging (MRI), and X-ray.</b> This module support image viewing from multiple imaging modalities, including:</p> <ul style="list-style-type: none"> <li>● Computed Tomography (CT) Scans</li> <li>● Magnetic Resonance Imaging (MRI)</li> <li>● Computed Radiography (CR)</li> </ul>		

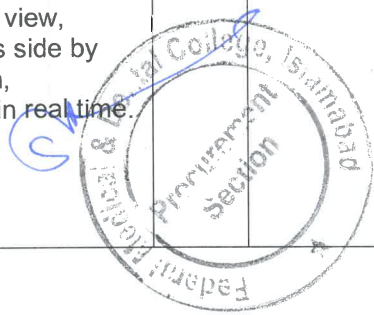




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S. No.	Name of Equipment	Specification	Qty.	Item Quoted Yes ✓ / No X
		<ul style="list-style-type: none"> <li>• X-rays</li> <li>• Ultrasound</li> </ul> <p>It enables the detailed analysis and interpretation, facilitating enhanced learning and clinical decision-making.</p> <p><b>Radiological Workstation (Additional optional features)</b></p> <ul style="list-style-type: none"> <li>• Optional connectivity to PACS integration</li> <li>• DICOM support (CT, MRI , Ultrasound, and others)</li> <li>• 2D Multiplanar Reconstruction (MPR)</li> <li>• Non-orthogonal MPR</li> <li>• 3D visualization (Volumetric, So-Surface, MIP, X-Ray)</li> <li>• Colo filters (CLUT)</li> <li>• Window and contrast customization</li> <li>• Comprehensive annotation tools</li> <li>• Column measurement and labeling</li> <li>• Report generation and printing</li> <li>• Direct clip board sharing</li> </ul> <p><b>Workspaces</b></p> <p>Software must allow teachers and students to save their visualization states and create personalized classes, notes, guided studies, and projects. Teachers and students can resume exactly where they left off, ensuring a seamless learning experience.</p> <p>Enabling users to locate content by title, date, anatomical region, or system. Saved sessions can be exported and imported locally, making it easy to share studies with other users. The system also includes a set of example Workspaces that can be edited, deleted, or customized to create new learning materials and visualizations.</p> <p><b>Advanced 3D Reconstructions (Additional features)</b></p> <ul style="list-style-type: none"> <li>• Photorealistic volumetric 3D renderings</li> <li>• Realistic tissue color and texture representation</li> <li>• Interactive dissection and segmentation tools</li> <li>• Adjustable window preset s for optimal visualization</li> <li>• Isolate and hide options for targeted study</li> <li>• Comprehensive notes and measurements</li> <li>• Advanced transfer functions for enhanced image processing</li> </ul> <p><b>Multiple Modalities Integration</b></p> <ul style="list-style-type: none"> <li>• Software must allow multiple modalities to be open simultaneously which enables seamless comparison and analysis of various datasets, including the Anatomical Atlas, Virtual Cadaver, and Radiological Images, all on a single screen.</li> <li>• Educators, students, and professionals can view, manipulate, and compare diverse resources side by side, combining 3D anatomical visualization, radiological studies, and histological slides in real time.</li> </ul> <p><b>Conclusion:</b></p> <p>Simultaneous display of:</p> <ul style="list-style-type: none"> <li>• 3D anatomy</li> <li>• Virtual cadaver</li> </ul>		





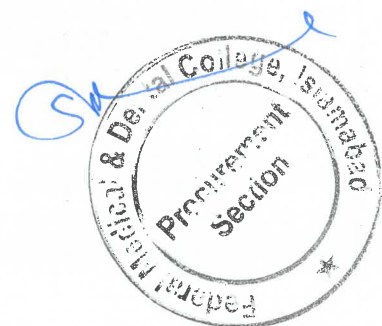
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		<ul style="list-style-type: none"> <li>● Radiology images</li> <li>● Histology slides</li> <li>● Embryology</li> </ul> <p><b>Clinical Cases: (Additional features)</b>            Software must include hundreds of clinical cases across various DICOM imaging modalities, along with a library of pathologies for in-depth exploration and teaching. This allows students and healthcare professionals to <b>study both normal and pathological anatomy</b>, manipulate real imaging exams, and make annotations directly within the system.</p> <p><b>Veterinary Module (Optional)</b>            Software should have a <b>Veterinary Module</b>, which should be a comprehensive and versatile tool for veterinary anatomy and imaging education. It combines advanced visualization features with interactive functionality, supporting the study and comparison of anatomical and radiological data from multiple animal species.</p> <p>This module includes a complete <b>3D Anatomical Atlas of eight species</b>, each with all systems and structures clearly identified and labeled. It also supports <b>DICOM imaging</b> from any modality, making it a valuable asset for veterinary schools, clinics, and research institutions.</p> <p><b>Access Control</b>            System contain <b>user profile management system</b> allows secure access for multiple users, ensuring that classes, studies, and personal projects remain separate and organized when using the same device.</p> <p><b>Content Sharing</b>            can generate complete reports in multiple formats – including native files, <b>PDF</b>, and <b>DOC</b>. Reports can include automatically generated annotations, headers, and footnotes, for print, export, or share study materials with colleagues or students.</p> <p><b>Mandatory Criteria:</b></p> <ul style="list-style-type: none"> <li>● CE Certificate * ISO Certificate * Training of End-User</li> </ul>		

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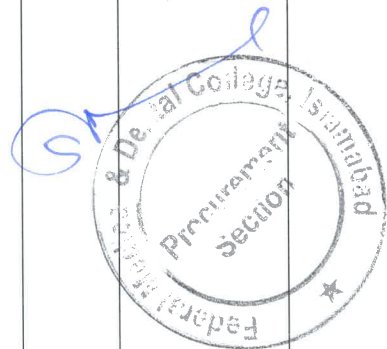




**FINANCIAL OFFER**

Financial Offer for Supply of **Medical & Lab Equipment** for  
**Federal Medical College**

S. No.	Name of Equipment	Specification	Qty.	Unit Rate without GST	Total Amount without GST
1.	3D Anatomy Dissection Table	<p><b>Anatomy Virtual Dissection Table</b> Country of Manufacturer: Pakistan</p> <p><b>Technical Features</b> The Anatomy virtual dissection table must be a 75-inch display with 4K resolution and an intuitive capacitive touch interface that enables users to interact seamlessly with high-resolution visualized data, smoother navigation and unmatched precision. The screen must support vibrant colors, exceptional picture depth, and bold contrast. And ensures every intricate anatomical detail down to microscopic structures must be clearly visible that enhancing the overall learning experience through virtual cadaveric dissection and detailed visualization of human anatomy.</p> <p><b>Hardware Includes:</b></p> <ul style="list-style-type: none"> <li>• MultiPoint Touch Screen &amp; 75 Inches 4K resolution screen with Tempered glass</li> <li>• Movable via motorized system Horizontal &amp; Vertical motion</li> <li>• Must support switching to a Smart Board for classroom lectures.</li> <li>• Can be easily projected</li> <li>• <b>Processor:</b> Intel Core i7 / i9 (Strictly 13th Generation or newer) or AMD Ryzen 9 equivalent.</li> <li>• <b>RAM:</b>32 GB DDR5 or above</li> <li>• <b>Storage:</b> Minimum 1 TB NVMe SSD (for fast OS/Software booting) + 2TB HDD (offline data + 3D models storage).</li> <li>• <b>GPU:</b> Dedicated graphics card strictly NVIDIA RTX 4070 Ti or RTX 4080 (16GB or above for rendering 3D anatomy).</li> <li>• <b>Operating System:</b> Windows 11 Pro (Licensed)</li> <li>• Open platform to receive other software</li> <li>• Trolley base with wheels</li> <li>• UPS for power backup</li> </ul> <p><b>Placement Convenience:</b> Must be have tilting option in table for positioning motorized elevation for height adjustment – It should be used as Vertical (Landscape) &amp; Horizontal (Table)</p> <p><b>Bookmarks:</b> Must capable of case preparation before class and saving the work to a homework or next class.</p>	01		

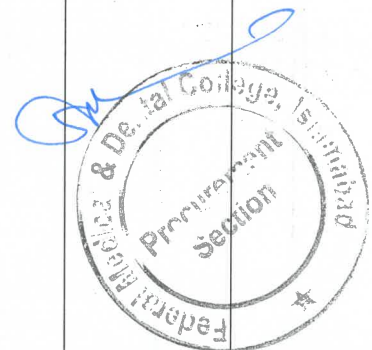




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		<p><b>Projector / Monitors</b> Possible to connect with Project /external screens.</p> <p><b>Software module include:</b> o Anatomy Learning Platform - <b>Software License for Life time With Offline Access</b> <b>Anatomy Learning Platform</b></p> <p>This system is included a modular software platform which is specifically designed for anatomical teaching, allow the users to visualize and study medical images for the purpose of virtual dissection and in-depth exploration of human anatomy. This software is equipped with advanced tools for visualization, interaction, and analysis, utilizing an integrated Anatomical Atlas, Virtual 3D Cadaver, and medical imaging capabilities, all is to be enhanced with photorealism.-It enables detailed body analysis through both 3D and planar imaging, making it a comprehensive and intuitive solution for health education. It features:</p> <ul style="list-style-type: none"><li>● A Virtual 3D Human Cadaver</li><li>● A complete Human Atlas, covering all systems and structures</li><li>● A Radiological real case studies</li><li>● Integrated Visualization: Combining multiple anatomical or imaging data (e.g., 3D models + radiology scans) into a unified view enabling the simultaneous display and, 3D anatomical models, and virtual cadaver data within a single screen</li><li>● <b>Offline Access:</b> Designed to operate without a constant internet connection for core 3D rendering and data manipulation.</li><li>● Cytology/ Histology and Slide Viewing Modules</li><li>● Layer Dissection &amp; Cross-Section Views</li><li>● Developmental anatomy</li><li>● Capability to import any type of media, enabling comparative studies and custom learning experiences with just one click</li><li>● Ability to <b>cut, dissect, and explore</b> internal morphology in detail, adding <b>custom measurements and annotations</b> for a deeper learning experience.</li><li>● Comparative anatomy through simultaneous opening in different sections, Loading various file formats such as images, videos, documents, and much more, medical imaging: MRI, CT, X-ray and other files in, as includes:</li></ul> <p><b>Bodies &amp; System:</b> To learn about the human anatomy interactively through the male and female anatomical atlases, and through the virtual cadaver - a 3D reconstruction of a real human body. The macroscopic study of the human body is organized</p>			

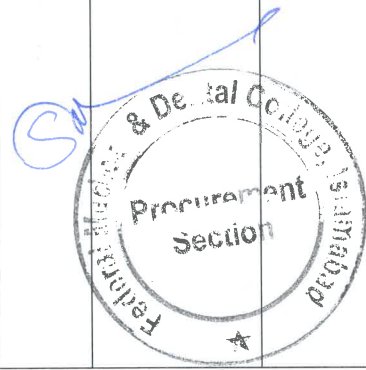




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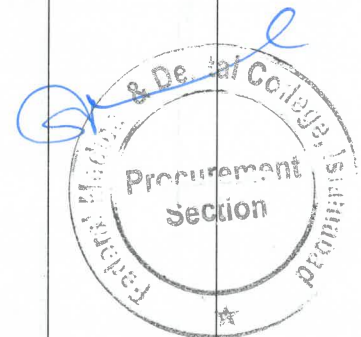


S. No.	Name of Equipment	Specification	Qty.	Unit Rate without GST	Total Amount without GST
		<p>in complete anatomy, which presents the systems and anatomical parts in an integrated way; systemic anatomy and regional anatomy, which study structures that form organic systems and anatomical regions.</p> <p><b>Human Body</b></p> <ul style="list-style-type: none"> <li>• Real human body</li> <li>• Safe, clean, and cost-efficient alternative to cadaver labs</li> <li>• High-resolution images with preserved color and structure</li> <li>• Interactive dissection with labeled tags</li> <li>• Custom annotations and measurements</li> <li>• Multiplanar (MPR) and 3D reconstructions</li> <li>• Complete tomography database</li> </ul> <p><b>Complete Anatomy</b></p> <ul style="list-style-type: none"> <li>• Regional (Topographic anatomy)</li> <li>• Systemic Anatomy</li> </ul> <p><b>Complete Anatomy</b></p> <p>This module is enabled the study of human morphology and anatomical organization through the observation and analysis of macroscopic structures. It is integrated structural analysis with the functional understanding of body parts, considering environmental, genetic, and temporal factors that influence formation and response mechanisms.</p> <p>The content is to be categorized into two primary perspectives:</p> <ul style="list-style-type: none"> <li>• Organ Systems</li> <li>• Anatomical Regions</li> </ul> <p>It is included representative anatomical models of both male and female bodies, along with a Virtual Male Cadaver.</p> <p>Key features of this module include:</p> <ul style="list-style-type: none"> <li>• Over 2,500 labeled structures from all anatomical systems</li> <li>• Divided into at-least 12 anatomical systems and 9 anatomical regions</li> <li>• More than 200 labelled parts for 3d tissue segmentation</li> <li>• Separate models for Male and Female anatomy</li> <li>• A real human body, sectioned into more than 1,800 ultra-high-resolution slices, digitally reconstructed in 3D</li> <li>• The Virtual Cadaver retains natural coloration, is segmented and mapped, allowing for complete visualization of internal structures</li> <li>• The dataset comprises CT images of the entire body and five series of high-definition RGBA images, including four regional series (head/chest, abdomen/pelvis, thighs/knees, and legs/feet) and one complete-body series.</li> </ul>			



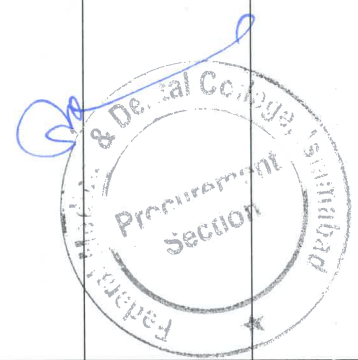


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		<p><b>System Coverage</b>            This module offers a comprehensive, anatomically accurate, and interactive learning experience for the study of human anatomy in educational and clinical settings.            This module focuses on the analytical study of the human body's organ systems, grouping together organs and anatomical structures that work in an integrated manner to perform specific biological functions. While each system is responsible for a distinct task, all systems are interconnected, working together to ensure the proper functioning and survival of the organism as a whole.</p> <p>This module covers the following at-least 12 anatomical systems:</p> <ol style="list-style-type: none"> <li>1. Arterial</li> <li>2. Venous (Cardiovascular)</li> <li>3. Articular</li> <li>4. Digestive</li> <li>5. Endocrine</li> <li>6. Skeletal</li> <li>7. Lymphatic</li> <li>8. Muscular</li> <li>9. Nervous</li> <li>10. Respiratory</li> <li>11. Integumentary</li> <li>12. Urogenital</li> </ol> <p>This structured approach provides a comprehensive understanding of how individual systems contribute to and interact within the larger biological framework of the human body.</p> <p><b>Cells and Tissues:</b>            This module allows the users to navigate the cells of the human body using interactive 3D models, offering an in-depth view of cellular structures and organelles, along with their specific functions across different cell types.            In addition, the module includes a collection of high-resolution histological slides, enabling users to explore various body structures at the microscopic level, including glands, organs, and tissues. This immersive approach enhances the understanding of both cell and histology, supporting foundational and advanced medical education.</p> <p><b>Histology</b>            The <b>Slides Module must</b> have an extensive collection of <b>histological slide images</b> for download in JPEG format. It should also feature an <b>interactive annotation tool</b>, offering a variety of color and brush options for marking and highlighting key structures. This module helps for teaching <b>microscopic anatomy and histopathology</b></p>			





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		<p><b>Histological Slides</b>            Visualization and analysis of microscopic structures</p> <ul style="list-style-type: none"> <li>• High-resolution digital slides covering glands, organs, tissues, and systems</li> <li>• Normal and pathological samples</li> <li>• Zoom and annotation tools</li> <li>• Side-by-side comparison</li> </ul> <p>Interactive a notation and note-taking tools</p> <p><b>Cytology</b>            It offers an immersive, interactive exploration of cellular biology through 3D content, divided into two key categories: Cells and the Cell Membrane. This module enables users to visualize and understand the structure, function, and characteristics of various cell types in high detail. Users can explore the following cell models:</p> <ul style="list-style-type: none"> <li>• Immune System Cell</li> <li>• Neuron</li> <li>• Adipose Cell</li> <li>• Blood Cell &amp; Grouping</li> <li>• Muscle Fiber</li> <li>• Thyroid Follicle</li> </ul> <p>Functional and structural visualization</p> <p><b><u>Body Functions and Development</u></b>            This module is enabled the study of human physiology and embryology through immersive 3D virtual content, offering a clear and interactive understanding of key physiological processes and developmental stages. It must allow the users to:</p> <ul style="list-style-type: none"> <li>- Visualize the functioning of major body systems</li> <li>- Explore embryonic and fetal development, from the 4th week of gestation to birth</li> </ul> <p>By combining visual learning with scientific accuracy, this module must enhance comprehension of complex biological functions and developmental milestones, making it an essential tool for health science education.</p> <p><b>Embryology:</b>            It follows embryonic and fetal development from oogenesis and spermatogenesis through to birth using interactive 3D animations that illustrate both the Embryonic Period and the Fetal Period of development. This immersive module allows the users to visualize and understand the complex stages of human development in a clear, engaging way.</p> <p><b>Physiology</b>            It explores the functioning and normal functions of the human body through interactive 3D virtual content:</p> <ul style="list-style-type: none"> <li>• Cardiac Cycle of the Heart</li> <li>• Muscle Fiber Contraction</li> </ul>			

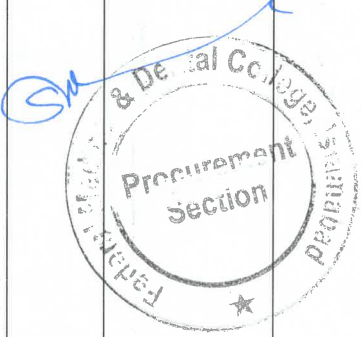




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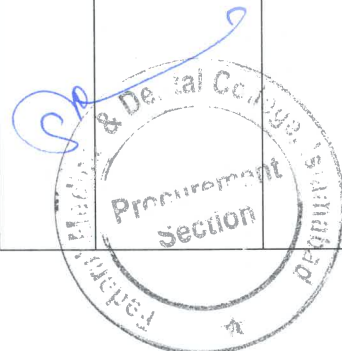


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		<ul style="list-style-type: none"> <li>● Generation and Conduct of Action Potential</li> <li>● Hematology</li> <li>● Lung Ventilation</li> </ul> <p>This interactive module provides a dynamic and visual approach to understanding essential physiological processes.</p> <p><b>Radiology:</b>            A comprehensive system for viewing DICOM images with advanced tools for managing radiological studies and clinical cases. Must have vast DICOM studies and images from various modalities, such as <b>Computed Tomography (CT), Magnetic Resonance Imaging (MRI), and X-ray.</b> This module support image viewing from multiple imaging modalities, including:</p> <ul style="list-style-type: none"> <li>● Computed Tomography (CT) Scans</li> <li>● Magnetic Resonance Imaging (MRI)</li> <li>● Computed Radiography (CR)</li> <li>● X-rays</li> <li>● Ultrasound</li> </ul> <p>It enables the detailed analysis and interpretation, facilitating enhanced learning and clinical decision-making.</p> <p><b>Radiological Workstation (Additional optional features)</b></p> <ul style="list-style-type: none"> <li>• Optional connectivity to PACS integration</li> <li>• DICOM support (CT, MRI , Ultrasound, and others)</li> <li>• 2D Multiplanar Reconstruction (MPR)</li> <li>• Non-orthogonal MPR</li> <li>• 3D visualization (Volumetric, So-Surface, MIP, X-Ray)</li> <li>• Colo filters (CLUT)</li> <li>• Window and contrast customization</li> <li>• Comprehensive annotation tools</li> <li>• Column measurement and labeling</li> <li>• Report generation and printing</li> <li>• Direct clip board sharing</li> </ul> <p><b>Workspaces</b>            Software must allow teachers and students to save their visualization states and create personalized classes, notes, guided studies, and projects. Teachers and students can resume exactly where they left off, ensuring a seamless learning experience.            Enabling users to locate content by title, date, anatomical region, or system. Saved sessions can be exported and imported locally, making it easy to share studies with other users. The system also includes a set of example Workspaces that can be</p>			





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		<p>edited, deleted, or customized to create new learning materials and visualizations.</p> <p><b>Advanced 3D Reconstructions (Additional features)</b></p> <ul style="list-style-type: none"> <li>• Photorealistic volumetric 3D renderings</li> <li>• Realistic tissue color and texture representation</li> <li>• Interactive dissection and segmentation tools</li> <li>• Adjustable window presets for optimal visualization</li> <li>• Isolate and hide options for targeted study</li> <li>• Comprehensive notes and measurements</li> <li>• Advanced transfer functions for enhanced image processing</li> </ul> <p><b>Multiple Modalities Integration</b></p> <ul style="list-style-type: none"> <li>• Software must allow multiple modalities to be open simultaneously which enables seamless comparison and analysis of various datasets, including the Anatomical Atlas, Virtual Cadaver, and Radiological Images, all on a single screen.</li> <li>• Educators, students, and professionals can view, manipulate, and compare diverse resources side by side, combining 3D anatomical visualization, radiological studies, and histological slides in real time.</li> </ul> <p><b>Conclusion:</b>            Simultaneous display of:</p> <ul style="list-style-type: none"> <li>• 3D anatomy</li> <li>• Virtual cadaver</li> <li>• Radiology images</li> <li>• Histology slides</li> <li>• Embryology</li> </ul> <p><b>Clinical Cases: (Additional features)</b>            Software must include hundreds of clinical cases across various DICOM imaging modalities, along with a library of pathologies for in-depth exploration and teaching. This allows students and healthcare professionals to <b>study both normal and pathological anatomy</b>, manipulate real imaging exams, and make annotations directly within the system.</p> <p><b>Veterinary Module (Optional)</b>            Software should have a <b>Veterinary Module</b>, which should be a comprehensive and versatile tool for veterinary anatomy and imaging education. It combines advanced visualization features with interactive functionality, supporting the study and comparison of anatomical and radiological data from multiple animal species.</p> <p>This module includes a complete <b>3D Anatomical Atlas of eight species</b>, each with all systems and</p>			





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		<p>structures clearly identified and labeled. It also supports <b>DICOM imaging</b> from any modality, making it a valuable asset for veterinary schools, clinics, and research institutions.</p> <p><b>Access Control</b> System contain <b>user profile management system</b> allows secure access for multiple users, ensuring that classes, studies, and personal projects remain separate and organized when using the same device.</p> <p><b>Content Sharing</b> can generate complete reports in multiple formats – including native files, <b>PDF</b>, and <b>DOC</b>. Reports can include automatically generated annotations, headers, and footnotes, for print, export, or share study materials with colleagues or students.</p> <p><b>Mandatory Criteria:</b> CE Certificate * ISO Certificate * Training of End-User</p>			

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