Tender (Ref: IISc-Med-2024-25/L-13) **March 1, 2025**

LOCAL TENDER ENQUIRY

To Whom It May Concern

This **Request for Quote (RFQ)** invites proposals for the **planning, supply, installation, testing, commissioning, and training of an ADVANCED CARDIAC LIFE SUPPORT AMBULANCE system at the Indian Institute of Science (IISc), Bangalore.** The ALCS Ambulance will be used to provide high-level emergency medical care during transport, specifically designed for rapid response and equipped with advanced medical equipment.

At IISc, the planned infrastructure encompasses a wide array of medical equipment to support advanced imaging capabilities essential for patient care, teaching, and research. The vendors are requested to factor this exposure's value into their quotes. Details of IISc can be gleaned from:

https://medicine.IISc.ac.in/

A. Procedure:

1. Vendors are required to submit a technical proposal and a commercial proposal in two separate sealed envelopes. Only vendors who meet the technical requirement will be considered for the commercial negotiation.
2. The Bidder should belong to either Class-1 or Class-2 suppliers distinguished by their "local content" as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter.
    a) Class-1 supplier: Goods and services should have local content of equal to or more than 50%.
    b) Class-2 supplier: Goods and services should have local content of equal to or more than 20 % and less than 50%.
3. Quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.
4. The quotations should be on FOR-IISc Bangalore basis in INR only.
5. Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.
6. Purchase preference as defined by the recent edits to GFR (within the "margin of purchase preference") will be given to the Class-1 supplier.
7. MSMEs can seek an exemption to some qualification criteria. IISc follows GFR2017 for such details. Separate detailed justification needs to be given to substantiate the qualification as Class 1 and Class 2 suppliers, and the intender reserves the right to cross-check the factual validity of the same
8. Separate detailed justification needs to be given to substantiate the qualification as Class 1 and Class 2 suppliers, and the intender reserves the right to cross-check the factual validity of the same
9. The deadline for submission of proposals is **March 21, 2025, Friday, 5:30 pm Indian Standard Time.**

10. Bids in the sealed envelope should arrive at the office of Dean (A & F), Main building, Indian Institute of Science, Bangalore 560012, India, by the above deadline.
11. The technical proposal should contain a technical compliance table with 6 columns.
    a. The first column must list the technical requirements in the order that they are given in the technical requirement below in tender specifications.
    b. The second column should provide specifications of the equipment against the requirement (please provide quantitative responses wherever possible.)
    c. The third column should describe your compliance with a “Yes” or “No” only. Ensure that the entries in column 2 and column 3 are consistent.
    d. The fourth column should state the reasons/explanations/context for deviations, if any.
    e. The fifth column can contain additional remarks from the OEM. You can use this opportunity to highlight technical features and qualify the response of previous columns.
    f. The Sixth column should contain the datasheet & technical offer Page reference number.
    g. If the required information is not available in the Product Data Sheet and printed technical literature, it must be authenticated by the competent authority of the principal manufacturer, and in case of any discrepancy, the decision of the Technical Committee shall be final and binding on the supplier; additionally, the vendor must provide a legally binding declaration stating that the required information will be demonstrated at the time of handover and commissioning
12. Vendors are encouraged to highlight the advantages of their equipment over comparable equipment from the competitors.
13. In the commercial bid, please provide the itemized cost of the equipment and required accessories, etc.
14. Please provide itemized cost for any suggested/optional accessories/add-on items that may enhance the equipment usability, capability, accuracy or reliability. Vendors are encouraged to quote for as many add-ons as their product portfolio permits.
15. In the quote, you are requested to provide itemized cost for spares, accessories, consumables expected over 2 years of use.
16. Please indicate the warranty provided with the equipment.
17. Any questions or clarifications can be directed to:

    Dean (A & F)
    Main building, Indian Institute of Science,
    Bangalore 560012 tenders@IISc.ac.in

B. Terms and Conditions

1. The decision of the purchase committee of IISc will be final.
2. The vendor is responsible for the planning, supply, installation, testing and commissioning of the equipment & the training of personnel of the installed equipment at the IISc.
3. The RFQ must include references to previous installations including the list of all customers where similar systems were installed in the past 5 years. Please provide the names and contact addresses of the referees so that the committee can contact them independently. Details of such systems with model numbers and users should be provided. The reference letters can be used to disqualify vendors with poor track records of service, build quality, system performance, or poor availability of spares.
4. The vendor should have qualified technical service personnel for the equipment based in India and must assure a response time of <2 hours after receiving a service request. The schedule for periodic preventive maintenance for the equipment and all the items related to OEMs should be provided.

5. The indenter reserves the right to withhold placement of the final order and to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason.
6. Wherever requested in this specifications sheet, data must be supplied along with technical compliance documents. Technical bids without supporting data will be deemed as technically non- compliant.
7. Upon request, all guaranteed specifications will have to be demonstrated in an active installation. Failure to demonstrate any promised specifications will be deemed as technical non-compliance.
8. Printed literature and published papers to support compliance with the prescribed specifications may be provided duly authenticated by qualified personnel in the company.
9. Technical evaluation by the IISc may include a demonstration to verify the functionalities and capabilities of the equipment quoted. Any discrepancy between the promised and demonstrated specifications will be deemed technical non-compliance. If the need arises, the vendor must be ready to visit IISc for a techno commercial discussion physically.
10. The validity of commercial quotations should be at least 90 days from the last date for the submission of tender documents.
11. **Payment terms:** LC will be opened with 70% payment on shipment of the documents and remaining 20% on installation, testing & commissioning and 10% on user satisfaction. Insurance coverage should be till the commissioning of equipment.
12. The functionalities and capabilities of the equipment to be provided as part of documentation. Any discrepancy in technical specification between what was committed during technical evaluation and demonstrated specification on ground will be deemed technical non-compliance. If the need arises, the vendor must be ready to visit IISc for a techno commercial discussion in person.

C. Other terms

1. Shipment and Delivery Terms

1.1 Partial Shipments

a. Partial shipments are allowed; however, transshipment is strictly prohibited.

1.2 Delivery Confirmation

a. Delivery shall only be made after receiving written confirmation from the IISc purchase team.

1.3 Consignee Details

a. The address of the consignee and the markings on the containers must be clearly stated as per the details provided by IISc.

1.4 Packing Slip and Documentation

a. A packing slip detailing each item and its quantity shall accompany every shipment.

b. The packing slip must be securely attached to the exterior of one of the containers in a

visible manner.

c. The purchase order (PO) number must be clearly marked on all packing slips, invoices, and correspondence.

1.5 Missing Items and Substitutions

a. Any items that are not found upon delivery must be clearly noted on the packing slip, and the anticipated availability of such items shall be indicated.
b. Substitutions of items shall not be made without prior written authorization from IISc.

1.6 Packing of Fragile Equipment

a. Fragile equipment shall be packed in wooden boxes to prevent damage during transit.

1.7 Packing of Critical Components

a. Critical components must be packed using foam/bubble wrap and cartons, and securely stuffed within containers to prevent any damage during transit or handling at the site.

1.8 Protection during Transit

a. The Seller shall ensure that all items are securely protected and packed in accordance with best established practices to avoid damage under conditions such as multiple handling, transportation by ship/road, storage, and exposure to heat, moisture, rain, etc.

1.9 Seller's responsibility for damage

a. The Seller shall bear full responsibility for any breakage, damage, or pilferage (including during transit or handling within the hospital) resulting from faulty packing.

1.10 Marking and Packing Slip

a. All packages must be visibly marked with the purchase order (PO) number and name of the Buyer in bold letters.
b. Copies of the packing slip must also be placed inside each package.

2. Insurance and Freight

a. Cost of all Freight & Insurance is Included in the purchase order value will be arranged by the supplier. The insurance should be from the vendor warehouse to the site till Installation & commissioning at IISc.

2.2 Seller Notification for Insurance

a. If IISc needs to arrange insurance, the Seller must notify promptly.

3. Warranty Terms

3.1 The equipment along with all the 3rd party items should carry a warranty of 12 months from the date of successful commissioning**.**

3.2 The warranty shall commence from the submission of a duly filled "Medical Equipment Acceptance Sheet Checklist," accompanied by all relevant documents, as per the specifications and requirements.

3.3 After-Sale Service

a. After-sales service will be provided by a service engineer trained by the principal company.
b. The credentials and certification of the service engineer shall be shared with IISc for approval.

3.4 Preventive Maintenance and Calibration

a. Preventive maintenance and calibration shall be performed according to the recommendations of the Original Equipment Manufacturer (OEM).

b. Preventive maintenance and calibration shall include calibration for any major breakdowns and be conducted in accordance with local rules and regulations, as well as OEM recommendations.

c. Maintenance and calibration shall also be based on the equipment performance history, using calibrated equipment traceable to international or NABL standards, as required.

3.5 Responsibility for Malfunctions

a. The seller shall take full responsibility for any mishaps or malfunctions related to the ordered equipment caused by delayed periodic maintenance or calibration under warranty & subsequently in a comprehensive annual maintenance contract.

3.6 Maintenance and Calibration Costs

a. Preventive maintenance and calibration shall be executed free of cost during the warranty and Annual Maintenance Contract (AMC) period.

b. The seller shall clearly inform IISc about the list of consumables or maintenance kits that may incur additional costs (not covered under the maintenance contract) before the equipment is supplied.

c. All accessories, including computer systems, printers, laptops, and software versions, shall be covered free of charge under warranty, rental contracts, and subsequent maintenance agreements.

3.7 Annual Maintenance Contract (AMC) and Comprehensive AMC (CAMC)

The CAMC rate shall be quoted absolute value of the equipment cost per year till nine years post warranty period of equipment. Please refer the template for GENERAL TERMS AND CONDITIONS FOR COMPREHENSIVE/LABOUR MAINTENANCE CONTRACT(CMC/AMC).

3.8 No Additional Terms to be imposed

a. The seller shall not impose any additional terms on the buyer when an Annual Maintenance Contract (AMC) is established on a yearly basis.

b. All the terms mentioned in the tender and subsequent purchase order shall remain applicable without any modifications.

3.9 Warranty Terms during CAMC

a. The warranty terms, including those for preventive maintenance and calibration, shall

remain valid and applicable throughout the duration of the CAMC, as per the terms outlined in the tender and subsequent purchase order.

3.10 Payment for AMC and CAMC

a. Payment for CAMC will be made on a quarterly or annual basis.

b. Payments will be disbursed upon the successful completion of preventive maintenance and calibration activities, in line with the terms and conditions of the tender and subsequent purchase order.

3.11 Consumables List

a. The vendor shall provide a list of consumables required for the equipment, along with their associated costs, before the supply of the equipment to IISc.

3.12 Equipment Recall and Standby Equipment

a. The vendor shall notify IISc of any recall related to the supplied equipment and ensure proper action is taken as per the buyer's recall terms and policies.

b. In the event of an equipment recall, the seller shall provide suitable standby equipment, ensuring the clinical functionality of the buyer is not impacted.

3.13 Adverse Event Reporting

a. Any adverse events associated with the medical devices shall be promptly reported to IISc.

b. The vendor shall ensure that any adverse event is communicated to the National Collaboration Centre-Materiovigilance Programme of India, in accordance with regulatory requirements.

4. Maintenance and Calibration

4.1 Preventive Maintenance and Calibration

a. Preventive maintenance and calibration will be conducted free of charge under the warranty period and any subsequent Annual Maintenance Contracts (AMC).

b. Calibration will be performed in accordance with industry standards and OEM specifications.

4.2 Report of Maintenance and Calibration

a. The Seller shall provide a report of maintenance and calibration with details of the work performed, including calibration standards and methods.

4.3 Qualification of Engineers

a. The Seller must ensure the trained engineers are certified and qualified for preventive maintenance and calibration.

5. Spare Parts

5.1 Supply of Spare Parts

a. The Seller shall supply spare parts for the entire lifetime of the equipment and guarantee availability for a minimum of 10 years from the date of commissioning of equipment.

5.2 Price of Spare Parts

a. The Seller will provide the prices of major spare parts, which should not exceed 30% of the total equipment value.

b. A list of critical spare parts and their estimated prices shall be submitted with the tender as part of commercial bid.

5.3 Spare Parts Availability

a. The Seller must maintain a minimum stock of spare parts to ensure quick availability for repairs.

5.4 Spare Parts Pricing

a. The prices of spares shall be firm for 5 years, after which adjustments can be negotiated considering inflation and exchange variations.

6. Uptime and Compensation

6.1 Uptime Requirement

a. The bidder must ensure a minimum uptime of 98% based on a 365-day working year.

b. In case the uptime falls below the specified 98%, the Warranty/CAMC shall be extended by a ratio of 1:7 days for every additional day of downtime.

6.2 Compensation for Test Failures or Erroneous Results

a. The seller shall be liable to compensate the buyer for any test failures or erroneous results generated by the ordered equipment.

b. The compensation amount will be mutually agreed upon by both parties, and this provision will be legally binding.

7. Software and Support Services

7.1 Software Licenses

a. All software supplied as part of the equipment must come with the necessary licenses for use in India.

b. The seller shall provide a copy of the software license along with proof of ownership.

The supplied application & operating system software will be kept updated in the form of Free of cost as & when they are released by the factory.

However, for new application software any additional hardware is needed, the cost will be borne by IISc management at negotiated special price.

7.2 Software Support Services

a. Any software updates or bug-fixing services will be free of charge during the lifetime of equipment.

8. Integration with Clients HIS & PACS-RIS

8.1 Integration Requirement

a. The Seller must integrate the equipment with clients' Hospital Information System (HIS) & PACS-RIS at no extra cost.

9. Confidentiality and Ownership Transfer

9.1 Confidentiality

a. The service provider must not acquire or retain any confidential data from IISc.

9.2 Ownership Transfer

a. Any change in the ownership of the principal company must honour all existing agreements with IISc.

10. Recall of Equipment

10.1 Equipment Recall

a. In the event of any recall of equipment, the Seller shall promptly inform IISc in writing.

b. During the period when the equipment is under recall, the Seller shall provide suitable standby equipment of similar or higher specifications to IISc, at no cost.

11. Force Majeure

If either Party is unable to carry out his obligations under this Contract due to an Act of God, war, riot, blockade, strike (I.e. national/ state or city), lockout, flood or earthquake or Government orders/ restrictions not within the control of the parties hereto which results In an Inability, In spite of due diligence of either party in performing its obligation In time, this Contract shall remain effective, but the obligation which the affected party Is unable to carry out shall be suspended for a period equal to the duration of the relevant circumstances provided that :

The non-performing party shall give the other Party prior written notice describing particulars of the Inability including but not limited to the nature of occurrence with its expected duration and the steps which the non-performing parties is taking to fulfil its obligation.

Upon receipt of such notice the other party shall discuss the matter with the non-performing party with a view to helping the non-performing party to fulfil obligations. This clause does not envisage financial assistance.

If in any event the Force Majeure situation continues for a period of three weeks both the parties shall meet again and discuss whether the Contract can be amended to overcome the Force Majeure situation so the Project can proceed further.

Notwithstanding anything contained to the contrary it is clarified that economic hardship, non-availability of material, labour and transport shall not constitute Force Majeure. The overall

responsibilities and obligations of the parties shall not be excused by reasons of Force Majeure situation.

Notwithstanding the above If the Force Majeure continues for a period of three months or more in that event without prejudice to the rights of the parties, the Buyer shall have the right thereafter to terminate this contract.

12. Seller's Personnel at Buyer's Premises

12.1 Adherence to Safety Regulations

a. Seller's personnel on IISc premises must adhere to all IISc safety regulations and protocols.

12.2 Seller's Responsibility for Personnel's Safety

a. The Seller is responsible for their personnel's safety and health while on IISc premises and shall indemnify IISc for any accidents or injuries.

13. Site Evaluation

a. The Seller must conduct a site evaluation including transportation path, power, air conditioning and other requirements before equipment installation.

b. The Seller shall submit detailed drawings, specifications, and colour codes for all ordered items for Buyer review and approval via email or other methods. Manufacturing shall commence only after drawing approval and joint inspection of the proposed site.

14. Skilled & trained Engineer for Installation

a. Installation must be carried out by a skilled engineer and is considered complete only when the equipment is fully operational as per the tender specification.

15. Inspection and Quality Plan

15.1 New Equipment Requirement

a. Only brand-new equipment will be accepted, and it must be accompanied by quality conformance and manufacturer test certificates.

15.2 Training

a. Hands-on training for IISc engineers and technicians must be provided at no extra cost.

16. Marketing Support

a. The Seller shall provide marketing support to IISc as mutually agreed upon.

17. Other terms and conditions

a. **Software Compatibility** – If the equipment includes software, it must support integration with hospital EMR/HIS via HL7/FHIR standards.

b. **Standard Accessories** – The system should come with all essential accessories (e.g., power cords, consumables) required for full functionality.
c. **Regulatory Compliance** – The software should comply with National Health Stack requirements and undergo ABDM sandbox testing, if applicable.
d. **Data Protection** – Any patient-related data generated by the equipment must adhere to DPDP Act guidelines, if applicable.
e. **BMS Integration** – The system should include a portal for Building Management System (BMS) integration at no additional cost, if applicable.
f. **Local Service Support** – Supplier must have a registered office, trained engineers, spare parts, calibration equipment, and installation references in Bangalore.
g. **Country of Origin Restrictions** – Equipment/materials originating from countries sharing a land border with India will not be accepted.

18. Vendor is to provide compliance with remarks against all terms and conditions

a. The First column should describe your compliance with a "Yes" or "No" only. Ensure that the entries in column 1 and column 2 are consistent.
b. The Second column should state the reasons/explanations/context for deviations, if any.
c. The Third column can contain additional remarks from the OEM

19. Upon request, a soft copy of the compliance shall be submitted if required for the hard copy submission

TEMPLATE FOR ACCEPTANCE OF MEDICAL EQUIPMENT FOR CLINICAL USAGE

Sr.No.	MEDICAL EQUIPMENT PRE-COMMISSIONING CHECK-LIST (To be filled during commissioning handover)	Vendor to fill the details
1	Equipment name	
2	Main Unit Model & Serial No	
3	Date of receipt of equipment at site	
4	Goods opening report (item wise)	
5	Principal Company name	
6	Dealer/ Vendor name	
7	Vendor contact details including email address	
8	Equipment Model name	
9	User Department name	
10	End User (Head of Dept) Signature	
11	Clinical Engineers name	
12	Clinical Engineers Signature	
13	Service Engineers name and Contact number	
14	Application specialist name and contact number	
15	Main Unit - hardware as per Purchase Order (Vendor-signed PO and list of	

	items supplied as per PO with invoice) to be enclosed as part of the commissioning documentation.	
16	Main Unit - software as per Purchase Order (Vendor-signed PO and list of software supplied as per PO with invoice) to be enclosed as part of the commissioning documentation.	
17	OEM items as per Purchase Order (Vendor-signed PO and list of items supplied as per PO with invoice) to be enclosed as part of the commissioning documentation.	
18	Accessories as per Purchase Order (Vendor-signed PO and list of items supplied as per PO with invoice) to be enclosed as part of the commissioning documentation.	
19	Consumables as per Purchase order- (Vendor signed PO and List of items supplied as per PO with invoiced) to be enclosed as part of commissioning documentation	
20	Brochure of equipment to be enclosed as part of the commissioning documentation.	
21	Technical Data Sheet to be enclosed as part of the commissioning documentation.	
22	Set of service manuals (1 hard copy & 1 PDF soft copy) to be handed over to the Clinical Engineering Dept.	
23	Set of instruction manuals - Two copies (1 hard copy and 1 PDF) to be handed over to the Clinical Engineering Dept.	
24	List of spares & additional accessories with re-ordering codes and costs used along with the equipment as a standard package (PDF).	
25	Equipment demo training information materials like PPT/Video to be handed over to the Clinical Engineering department.	
26	Duly signed letter from the vendor organization head (MD/CEO) stating that the supplied unit, accessories & OEM items are brand new from the factory, to be enclosed as part of the commissioning documentation.	
27	Quality test certificate of equipment from the factory, duly signed by the factory production in-charge, to be enclosed as part of the commissioning documentation.	
28	Software license document (PDF); including OS, system and application software, and commitment to support over the lifetime of the equipment, to be enclosed as part of the commissioning documentation.	
29	All cables from the equipment should have proper cable management, i.e., cable labeling.	
30	2S and HIRA (Hazard Identification and Risk Assessment) to be conducted during preventive maintenance wherever applicable to keep the working area clean.	
31	First-level training to Clinical Engineering (training certificate).	
32	Application training to the end-user on all functions demonstrated (training certificate).	
33	Do's and Don'ts for the equipment for the user group to be provided as part of the training module, to be enclosed as part of the commissioning	

	documentation.	
34	Preventive maintenance frequency calculated based on Equipment Risk Classification, Usage and Operational Intensity, Manufacturer's Recommendations, Historical Performance, and Failure Data.	
35	Preventive maintenance (PM) checklist to be predefined & duly filled during preventive maintenance, to be enclosed as part of the commissioning documentation.	
36	Preventive maintenance kit specification & details to be shared in advance, to be enclosed as part of the commissioning documentation.	
37	Preventive maintenance schedule should be done during non-clinical work operational hours based on prior approval from the user.	
38	Calibration schedules should be based on Manufacturer's Recommendations and after every major equipment breakdown servicing.	
39	The calibration process should follow NABL 126 guidelines.	
40	With each maintenance work, the service provider should hand over two physical copies of the service report (one for the user and one for the Clinical Engineering Dept.) along with a duly filled PM checklist. If physical copies are not available, soft copies should be provided to both the user and the Clinical Engineering Dept. Accepted downtime in hours & accepted equipment breakdown frequency as per PO terms should be understood by the service team, including downtime penalty	
41	Accepted Downtime in hours & accepted equipment breakdown frequency as per PO terms are understood by service team including downtime time penalty.	
42	The service provider should maintain a logbook of maintenance at the user site.	
43	Shelf-life details of critical spares/accessories/consumables to be provided, to be enclosed as part of the commissioning documentation.	
44	Commissioning report should include (IQ/PQ/OQ) as part of equipment commissioning documents, duly signed by the user group, to be enclosed as part of the commissioning documentation.	
45	Cleaning & disinfection methodology, including the material used, to be provided at the time of commissioning of equipment, to be enclosed as part of the commissioning documentation.	
46	User application training schedule to be provided along with the PM schedule.	
47	Training materials soft copy (PPT/Video) to be shared for installation sign-off.	
48	Letter from the principal manufacturer stating their commitment to IISc for support of equipment for the coming years as per Purchase Order terms to be provided.	
49	CE/FDA, CDSCO Certificate to be enclosed as part of the commissioning documentation.	
50	The single-phase power cord supplied along with the equipment should have a 3-pin plug (Neutral, Phase, Earth) for Indian usage.	

51	Warranty card and details of the warranty to be enclosed as part of the commissioning documentation.	
52	Short shipped items (if any) with quantity. The warranty will start only after full supply, installation, testing, and commissioning of hardware, application software, and third-party equipment supplied along with the main equipment.	
53	OEM and Dealer Sales and Service Escalation contact details, including CEO/MD, to be enclosed as part of the commissioning documentation.	
54	Life of the equipment as committed during technical discussions to be provided with maintenance and spare support during the course of the year, irrespective of dealer change, as per PO terms and conditions, to be given on the OEM letterhead. In case the OEM stops service support during the sales-committed life, the vendor is expected to compensate with the depreciated cost of equipment or provide buyback or upgrade options according to the hospital's requirements.	
55	Any adverse events and recalls related to the equipment, if reported, need to be intimated to IMSF in a timely manner to ensure patient & staff safety by the vendor.	
	Signature: User Dept Head Head-Clinical Engineering	
	Date and Time	
	All these details should be given in a spiral bound document by vendor to IISc.	
	EQUIPMENT WARRANTY WILL START ONLY AFTER FULL COMPLIANCE OF ABOVE FORM	

GENERAL TERMS AND CONDITIONS FOR COMPREHENSIVE/LABOUR MAINTENACE CONTRACT(CMC/AMC)	
1) ALL TERMS AND CONDITIONS REMAIN UNCHANGED AS PER SALES PO	
2) AMC & CMC VALID FROM _____ TO _____	
3) THIS CONTRACT INCLUDES	
1	All equipment and items supplied by the OEM are covered under service contracts and must be replaced free of cost under CMC.
2	All equipment must be serviced by trained, authorized service engineers. The training certificate of the engineer must be submitted to the IMSF Clinical Engineering Team in advance.
3	Preventive maintenance frequency is calculated based on equipment risk classification, usage, operational intensity, manufacturer’s recommendations, historical performance, and failure data.
4	The equipment preventive maintenance must be performed according to the predefined checklist provided in the service manual.

5	Operating system and anti-virus updates are an integral part of preventive maintenance.
6	The vendor will not allow their service engineer to train junior staff on our equipment.
7	Vendor to attend unlimited breakdown calls.
8	Call response time of two hours to be maintained; response time to attend calls within 2 hours is applicable, including holidays and non-working hours.
9	Breakdown frequency should not exceed twice the frequency of preventive maintenance.
10	Vendor must submit soft copies of all reports in two copies.
11	Vendor must maintain a service logbook at the user department.
12	Yearly downtime and breakdown frequency will be calculated based on the call logbook.
13	Any damage to hospital property during maintenance by the company engineer should be compensated to the hospital.
14	Vendor must ensure two preventive maintenance visits per year before the due date. Any malfunction or harm to the patient due to delayed preventive maintenance or calibration will be the sole responsibility of the vendor, including legal compensation. Preventive maintenance and calibration must be mandatory after repair or replacement of any spare parts, and necessary kits are to be provided FOC.
15	A copy of the preventive maintenance report with a checklist and a soft copy of calibration, if applicable, is to be shared within one day of execution. The preventive maintenance and calibration label, with done and due dates, must be affixed to the machine without fail, along with the clinical engineer.
16	Periodic training to clinical engineers and end-users, as and when applicable, is mandatory. Training documents must be provided for all concerned staff prior to the renewal of the contract. It is the vendor's responsibility to ensure training, including application training for all staff, without fail. Training materials (PPT/Video) must be submitted to the clinical engineering team prior to any training.
17	Vendor should provide the cleaning and disinfection protocol for the equipment, carry out necessary training periodically, and ensure that all concerned members are trained on the same.
18	Any recall related to the above equipment must be notified in writing, and required corrective actions must be carried out FOC. Necessary training must be provided to concerned staff.
19	Any adverse event reported must be intimated to the Materiovigilance department, and corrective action must be shared within one working day with the hospital.
20	Complete breakdown details, including downtime and preventive maintenance/calibration history, must be shared before the renewal of the next contract. Any downtime of more than 48 hours must include root cause analysis and corrective & preventive action with due diligence. Service reports must be legible and include call received, call attended, and call closed (including date & time) accurately. Any report missing this information will be deemed incomplete.
21	Unlimited spare support must be provided, except for consumables (filters). All accessories and parts are covered and included in the contract. Spares must be ordered and moved immediately after diagnosis, including during holidays and non-working hours.

22	Uptime must be maintained at 98%, including holidays and non-working hours.
23	Uptime is defined by the machine working for its intended purpose without compromising patient care or revenue. Any deviation will count as downtime, and for any additional downtime, the contract will be extended by 1:7 days.
24	A maximum of two breakdowns per preventive maintenance frequency is permitted. Any deviation will increase the preventive maintenance frequency in the subsequent year with any cost escalation.
25	Standby equipment must be provided within a day if the issue cannot be resolved for movable equipment.
26	The vendor escalation matrix, including sales and service contact details (mobile numbers & email IDs), must be provided without fail.
27	First-level service training must be provided for the concerned equipment, and the training certificate must be provided to the clinical engineering team members.
28	Preventive maintenance must not be executed during peak working hours and must be carried out as per the user's convenience. The preventive maintenance kit is included in the CMC and must be replaced during preventive maintenance.
29	The AMC bill will only be cleared after the submission of the equipment log report, which must include details of downtime and preventive maintenance (PM) or calibration history. This report must be provided prior to the renewal of the contract.
30	For equipment under AMC, the quotation for spare parts must be provided within one day of the service engineer's recommendation in the service report.
31	For equipment under AMC, no cannibalization of spare parts from working equipment by the service engineer is allowed.
32	Any spare part ordered for equipment under CMC must reach the hospital site within 72 hours.
33	If the equipment remains non-functional after spare part installation, the concerned service engineer must be replaced from the IMSF site.
34	All defective spare parts under AMC will be retained by the hospital. For equipment under CAMC, IMSF will mark the spare part as defective, and a non-returnable gate pass will be issued.

Template for purchase order terms
General: Acceptance of this Purchase/ Work Order (hereinafter referred to as "PO/Order") includes the acceptance of the following terms & conditions and is made expressly conditional on Seller's assent to the exact terms contained herein. None of the terms in the Order may be modified, added to, or superseded, except with the written consent of Indian Institute of Science ("Buyer").
1.Price: The prices mentioned in this Order are the prices at which Buyer has agreed to purchase the Goods or Services (as applicable). No escalation in the aforesaid prices shall be binding on Buyer, notwithstanding anything that may be mentioned in Seller's terms of acceptance of Order.

2.Advice of Dispatch: A full and comprehensive dispatch advice notice shall be sent to stores or concerned departments of the Buyer ("Buyer Stores"). Instructions regarding dispatch & Insurance as mentioned in this Order should be complied with and the packing slips giving reference of Buyer order number shall be included securely with the goods in closed envelopes.

3.Delivery Terms:
(a) Deliver Date: Time is the essence in any Purchase Contract. Time of delivery/performance as mentioned in this Order shall be the essence of the Agreement and no variations shall be permitted except with prior authorization in writing from the Buyer.
(b) Place of Delivery: The goods/services shall be delivered/performed strictly as per the instructions in the Order. All Goods/Services delivered/performed at should reach Buyer Stores before 2.00 p.m. on weekdays except that no deliveries/ dispatches shall be made or accepted on Sundays or holidays in the working place of the Buyer.
(c) Delayed Delivery: The time and date of delivery/performance as stipulated in the Order shall be deemed to be the essence of the Agreement. In case of delay in performance of its obligations by the Seller, or any extension granted by the Buyer, the Buyer shall at his option either (i) accept delayed deliveries at price reduced by a sum/ percentage (%) mentioned in the Purchase Order for every week of delay or part thereof; and/or (ii) cancel the Order in part or in full and purchase such cancelled quantities from open market at the prevailing market price at the risk & cost of the Seller without prejudice to his rights under 3(c) (i) noted above in respect to the goods delivered; and/or (iii) refuse to accept the Goods delivered beyond the delivery date and claim/set-off the difference between the prevailing market price and contracted price of such quantity delivered belatedly by the Seller.
(d) Delay due to force majeure: In the event of cause of force majeure occurring within the agreed delivery terms, the delivery date may be extended by the Buyer at its sole and absolute discretion on receipt of application from the Seller without imposition of liquidated damages. Only those cause which have duration of more than seven (7) consecutive calendar days will be considered the cause of force majeure. The Seller must inform the Buyer, by a Registered Post or courier letter duly Certified by the Chamber of Commerce or Statutory Authorities, the beginning and the end of the cause of delay immediately, but in no case later than ten (10) days from the beginning and end of each cause of force majeure as defined above.
(e) The goods shall correspond with the description of the samples of the original specification thereof in full details and must be delivered and dispatched within the stipulated time, as the case may be. Otherwise, the same shall be liable to be rejected and the Seller shall be deemed to have failed to deliver the goods in breach of the PO. The Buyer shall in that event at its sole and absolute discretion, will be entitled to either purchase such goods from other sources on Seller's account, in which case, the Seller shall be liable to pay to the Buyer any difference between the price at which such goods have been purchased and the price calculated at the rate set out in this Order or to hold the Seller liable to pay the Buyer damages for non-delivery of goods for such breach.
(f) Packing: Goods supplied against this order must be suitably and properly packed (conforming to special conditions stipulated by the Buyer, if any, for safe and/or undamaged transport by road or rail.)

4. Examination of goods: Irrespective of the fact that the goods are delivered to the Buyer by the Seller at the Seller's place or at Buyer's said office or are dispatched as per Buyer's instructions by rail or road, the goods shall always be supplied, subject to detailed inspection, at the Buyer works or such other destinations as specified in the Order for ascertaining whether the goods are in conformity with the Agreement or not and until then in no event the Buyer shall be deemed to have accepted such goods and upon any rejection of goods in question the Seller shall be deemed to have failed to deliver the concerned goods in accordance with the Agreement.

5. Rejection/ Removal of rejected goods and replacement: Buyer shall have the right to reject the goods whether in full or parts which are not delivered in accordance with the terms of the PO. within fifteen days from the receipt of the intimation from the Buyer of his rejection to accept the goods the Seller shall remove, at his own cost, the rejected goods from the Buyer's works or wherever such goods are lying. The Buyer shall not be in any way responsible for or be held liable for any loss or deterioration of the rejected goods as this shall be at the Seller's risk entirely. The Seller shall pay to the Buyer reasonable storage charges for storing such rejected goods for a period exceeding 15 days as

aforesaid. Upon rejection, if the Seller fails to replace the goods with the goods acceptable to the Buyer within the contractual period then the Buyer may, solely at his discretion, exercise all or any of the following options in respect of the rejected/undelivered quantity:- a. Dispose-off the rejected goods and claim/set-off the difference between the prevailing market price and contracted price of such undelivered/rejected quantity to the Seller's account; and/or b. purchase such undelivered/rejected quantity from the open market at the prevailing market price at the risk and cost of the Seller.

6. Transit Insurance: In case insurance is not included in Seller's scope he must furnish details such as reference, Lorry Receipt, Note No., nature of packing, number of cases, gross weight net weight, train carrying the goods, value of the goods dispatched etc. immediately on dispatch to Buyer's office to take up insurance in case of goods sent by Regd... Post, the Regd. Post parcel No. should be furnished to the Buyer with a packing slip when action will be taken to insure the goods. This procedure will be adopted unless specially advised by the Buyer to the contrary.

7. Insurance: Seller agrees that during the term of its performance hereunder, it shall, at its sole cost, maintain worker's compensation insurance and other legally required insurance in accordance with and meeting requirements of applicable law.

8. Invoices: All bills/ invoices for supplies/ services made bearing registration number of the Seller should be marked to concerned Office or as mentioned in Order (quadruplicate) duly endorsed with Purchase Order, Reference Number and Date and be accompanied by advice of dispatch detailed packing list and by an appropriate certificate necessary under the GST Registration Rules and Regulations.

9. Billing Instructions: Seller must follow the billing instructions carefully and correctly to enable early settlement of his dues. Disregarding the same may involve delay in such settlement. Seller must mention the following information in his bill: (1) Vendor Code Number (2) Purchase Order Item Number (3) Material Code Number, if any. The abovementioned information will be always available in this Order sent to him. One copy of the above document is to be sent to Buyer at The Assistant Registrar, Stores and Purchase Section, Indian Institute of Science, Sir C V Raman Avenue, Bengaluru-560012 or to the address as advised by the Buyer.

10. Compliance with laws: It is clearly reiterated that the Seller is representing an Entity which is strictly complying with all the Laws of the Land as is expected generally from a Seller of a product. It is also made explicitly clear that (a) the Seller has and shall maintain as valid shall under this order strictly comply with the specifications and the requirements agreed upon. At any given point of time, the seller is obliged to produce all applicable licenses, permits, approvals, authorizations and/or or other statutory approvals required to perform its obligation/s under the PO; (b) shall at all times duly observe, perform and comply with all obligations, requirements and/ or prohibitions contained in any statutes, regulations or ordinance of any authority whether governmental or provincial, relating to or in any way affecting or regulating the respective performance of the PO by it.

11. Standard GST Clause: a. The price quoted in this PO for supply of goods shall be exclusive of any applicable Goods and Services Tax, Customs duties, or any other indirect tax as may be imposed by the Government of India from time to time. The Seller shall provide a proper invoice in the form and manner prescribed under GST Invoice Rules containing all the particulars mentioned therein. In the event that the Seller fails to provide the invoice in the form and manner prescribed under rules, Buyer shall not be liable to make any payment against such invoice. Notwithstanding anything contained anywhere in the Agreement, in the event that the input tax credit of the GST charged by Seller is denied by the tax authorities to Buyer, Buyer shall be entitled to recover such amount from the Seller by way of adjustment from the next invoice. In addition to the amount of GST, Buyer shall also be entitled to recover interest at the applicable rate and penalty, in case any penalty is imposed by the tax authorities on Buyer. b. As required by any applicable legislation, where identifiable cost savings are realised by virtue of the enactment of the GST law, those cost savings will be reflected in the calculations of the consideration under this Agreement and shall be passed on by the Seller to Buyer. c. Event of default clause – In the event that the Seller does not deposit the GST charged on the invoice issued to Buyer or such GST charged on the invoice and paid by Buyer is not reflected in online tax credit ledger on common GSTN portal of the govt. as eligible input tax credit for any reason whatsoever, this Agreement

shall be liable to be terminated with immediate effect and Seller shall be liable to pay such damages as may be reasonably estimated by Buyer. In the event that the compliance rating prescribed under the GST Act, 2017 read with GST Rules, 2017 of Seller falls below prescribed level for any reason whatsoever, this Agreement shall be liable to be terminated with immediate effect and Seller shall be liable to pay such damages as may be reasonably estimated by Buyer. d. Representation and warranties clause – The Seller represents and warrants that it shall have and maintain in effect level of compliance rating as prescribed by the govt.

12. Warranty: The Seller warrants that goods and/or services supplier shall be of the highest grade and quality unless otherwise specified; shall conform to the specifications, drawings, samples or other descriptions contained in the Order or furnished or specified by the Buyer; shall be performed in a workmanlike manner; shall be fit and sufficient for the purpose intended; shall not violate any third party intellectual property rights and shall be merchantable, of good material and workmanship and free from all the defects whether latent or patent. In case the same is found to be defective, inter-alia, in respect of materials, workmanship, design or process of manufacturing within a period 12 months after the same had been put in use or 20 months from the date of acceptance of the goods by the Buyer, whichever is earlier, the Seller shall refund the price paid by the Buyer in respect of the said goods. The Seller shall guarantee that the material Seller further agrees that all materials / goods shall be repaired or replaced as the case may be as noted in Clause 20 below. All spare parts should carry the following: a) Name of the Machine b) OEM/Party's name c) Sr. at his / her own expense. The Seller shall be liable for all costs and damages and replacements at the sole option of the Buyer. These warranties are in addition to those implied by or available at law to Purchaser and shall exist notwithstanding the acceptance and/or inspection by Purchaser of all or part of the goods or services.

13. Right of the Buyer to Set Off: In the event, the Seller fails to deliver the goods in accordance with the terms of this PO, the Buyer shall have the right to cancel the PO forthwith and claim refund of any payment made by the Buyer as advance or otherwise to the Seller under the PO. The Buyer shall also have the absolute right to withhold, adjust, and/ or set-off any payment required to be made by the Buyer to the Seller under this PO or any other PO entered into between the parties against the cost, losses, damages etc. suffered by the Buyer due to the failure of the Seller to deliver the Goods in accordance with the terms of this PO, and the Seller expressly waives any objections it may have in this respect.

14. Cancellation/Termination: The Buyer reserves the right to cancel/terminate this Purchase Order or any part thereof. The Buyer shall be entitled to rescind the Agreement wholly or in part in a written notice to the Seller if (i) The Seller fails to comply with the terms of the Purchase Order; or (ii) The Seller goes bankrupt or goes into liquidation proceedings; or (iii) The Seller fails to deliver the goods on time and / or replace the rejected goods promptly; or (iv) the Seller fails to deliver the Goods/Services of desired quality, weight, specification, drawing, layout, design, etc.; or (v) The Seller makes general assignment for the benefit of the creditors; or (vi) Receiver is appointed in respect of property of the Seller. The Buyer shall also be entitled to cancel this Order without assigning any reasons or becoming any way liable in such cancellation.

15. No Assignment: This Purchase Order shall not be assigned to any other agency by the Seller without obtaining prior written consent of the Buyer.

16. Force Majeure: Failure or omission to carry out or observe any of the stipulation or condition of the Agreement shall not give rise to any claim or be deemed a breach of the Agreement if the same shall arise from any of the following causes. viz. the imposition or restriction on Import, Acts of God. The Seller submits his acceptance of this agreement with the above conditions by acceptance of Buyer’s Order even in cases where the confirmation has been made under assumption of different conditions.

17. Special Conditions: Seller will ensure that all statutes, regulations of the Central or State Government are strictly followed. Buyer shall not be liable to pay any damages/compensation due to non-compliance of these rules
/ regulations by Seller.

18. Arbitration: Any dispute arising out of or in connection with the agreement shall be settled by

Arbitration in accordance with the Arbitration Conciliation Act, 1996. The arbitration proceedings shall be conducted in English in Bengaluru by the sole arbitrator appointed by the Buyer. The cost of arbitration shall be shared equally between the parties unless decided otherwise by the arbitrator.

19. Dispute & Jurisdiction of Bengaluru: All disputes shall be subjected to the exclusive jurisdiction of the court in Bengaluru only or as provided in the PO/Order.

20. Limitation of Liability: In no event shall Buyer be liable to Seller, or to Seller's officers, employees or representatives, or to any third party, for any indirect, consequential, incidental, special, punitive or exemplary damages of whatsoever nature (including, but not limited to, lost business, lost profits, damage to goodwill or reputation and/or degradation in value of brands, trademarks or trade names, service names or service marks, or injury to persons) whether arising out of breach of contract, warranty, tort (including negligence, failure to warn or strict liability), contribution, indemnity, subrogation or otherwise.

21. All spare parts should carry the following: a) Name of the equipment b) OEM/Party's name c) Sr. No. as per the catalogue d) Buyer's Order No. and date and e) Quantity all relevant information.

22. Works carried out in Buyer's Institution or premises by the Sellers representatives etc.: Agent representative or employees of the Seller who in pursuance of the Agreement have to work in Buyer/Owner's Institution/Premises will be subject to the rules and regulations existing in the works. The Buyer shall not be liable for any accident which may cause to the Sellers personnel.

23. Intellectual Property Rights: All drawings, specifications and other documents furnished by Buyer and the Buyer's consultants, and copies thereof furnished to the Seller, are for use solely with respect to this Order. Such drawings, specifications and other documents are to be returned to the Buyer at the completion of the Order or earlier termination of this Agreement. All drawings, specifications and other documents prepared by or for Seller in contemplation of, in the course of, or as a result of performing the work shall be deemed works for hire and all right, title and interest therein shall vest in Buyer, whether or not the Order is ultimately completed. To the extent such drawings, specifications or other documents cannot be considered, by operation of law, works for hire, Seller shall assign to Buyer all right, title and interest thereto and all copies of such drawings, specifications and other documents shall be delivered to Buyer upon completion of the Order or earlier termination of this Agreement. Seller agrees to provide Buyer with reasonable assistance necessary to perfect Seller's interest in intellectual property created under this Agreement. This shall include, but not be limited to, the execution of documents necessary for the Copyright registration. No drawings, specifications or other documents may be used by the Seller or any Sub seller or material or equipment supplier on other projects or for additions to their Project outside the scope of the work without the specific written consent of the Buyer. The Seller, Sub suppliers, Sub-Sub suppliers and material or equipment suppliers are authorized to use and reproduce applicable portions of the drawings, specifications or other documents appropriate to and for use in the execution of their work under the contract documents. All copies made under this authorization shall bear the statutory copyright notice, if any, shown on the drawings, specifications and other documents prepared by or for the Buyer. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Purchaser's copyrights or other reserved rights. Any intellectual property conceived or developed during the course of the Order based upon or arising from Buyer's confidential and proprietary information shall be solely owned by Buyer. Except as expressly provided herein, no license or right is granted hereby to the Seller, by implication or otherwise, with respect to or under any patent application, patent, claims or patent or proprietary rights of Buyer.

24. The terms and conditions of this Order constitute the entire Agreement between the parties here to and changes will be binding only if the amendments are made in writing and signed by the authorized representatives of the Buyer and the Seller.

25. Risk of loss and/or damage to any goods furnished hereunder shall be upon Seller until the goods are physically delivered to Buyer's facility specified on the face of the Order and accepted by the Buyer.

26. Indemnification: Seller agrees to defend, indemnify and hold harmless the Buyer, its affiliated companies or parent companies, and their officers, employees, agents, guests, invitees and customers

from and against any and all liability, loss, damage, fine, penalty, cost or expense (including attorneys' fees) by reason of any allegation, claim, action or suit, whether for death, personal injury, property damage or otherwise, arising out of (1) failure of the goods or services supplied to meet specifications or warranties or for the goods or services to be otherwise defective; or (2) any alleged or actual, direct or contributory infringement or misappropriation of any patent, copyright, trade secret or other proprietary right arising from the purchase, use or sale of such goods or services; or (3) any leak or spill of any goods while being transported or delivered to Buyer; or (4) any breach by Seller of any term or condition contained in the Order; or (5) violation of applicable laws; or (6) alleged defect in the Goods and/or packaging material, or packed Product, or due to the Goods or packaging thereof being alleged to not adhere to any standard or quality set out herein or under any applicable laws; and/or (7) the acts, omissions, or wilful misconduct of Seller's employees and subcontractors, including their agents and representatives, and all other persons performing any services under the Order with the Seller, whether or not caused in part by a party indemnified hereunder. In the event that the goods or services, in Purchaser's reasonable opinion, are likely to infringe a patent or copyright, or misappropriate a trade secret (and in any event, if a court of law finds that the goods or services, in fact, do infringe or misappropriate), then Seller shall further provide Buyer one of the following forms of relief to be chosen by Seller: (a) obtain a license on Buyer's behalf to continue to use or sell the goods or services; (b) redesign the goods or services so that they do not infringe or misappropriate; or (c) refund Buyer the price paid for the goods or services in question. In any and all claims against Buyer by any employee of Seller, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under the Paragraph shall not be limited in any way by any indemnity or limitation on the amount or type of damages, compensation or benefits payable by or for Supplier, any subcontractor, or anyone directly or indirectly employed by any of them under workers' compensation acts, disability benefit acts, or other employee benefit acts.

27. Confidentiality: Seller shall keep confidential all specifications and proprietary information furnished by Buyer or prepared by Seller in connection with the performance of the Order (including the existence and terms of the Order) and shall not divulge or use such specifications or information for the benefit of itself or any other party, except as required for the efficient performance of the Order. Upon completion of the Order, Supplier shall make no further use, either directly or indirectly, of any such specifications or information.

28. Disposal: If applicable, Seller shall at all times retain title of ownership to any and all materials, substances or chemicals not incorporated into the work that Seller or any subcontractor brings onto Buyer’s premises. Seller shall be solely responsible for the handling, transportation and disposal of any and all materials, substances and chemicals. Seller or any subcontractor brings onto Buyer’s premises, and any waste generated or resulting from the use thereof. Seller shall not dispose or permit the release of any materials, substance or chemical, or any waste generated or resulting from the use thereof on Buyer’s premises. Seller shall handle, transport, and dispose of any and all substances and chemicals, including but not limited to hazardous wastes and substances as defined by applicable federal, state and local laws, rules, regulations, codes and ordinances.

29. Severability: If any provision of this Agreement is held to be invalid, illegal or un- enforceable, either in whole or in part, that holding will not affect the validity, legality or enforceability of the remaining provisions of this Order

30. Original Excise Gate pass must accompany each delivery for excisable goods, if applicable.

31. The Seller will not claim without our knowledge any refund from the excise authorities for the amount of Central Excise duty on the supplies made to us. The Seller shall also undertake to refund to the Buyer all money recovered by him from Govt. authorities for which he has been paid by the Buyer.

32. Unless a specific objection to each of the terms of this Purchase order is raised within 24 hours from the date of Purchase order/email under which this PO is sent, it shall be deemed to be accepted in full.

33. Supplier (Seller) Code of Integrity: The Seller/ Supplier agrees to follow code of integrity and code of conduct as prescribed by General Financial Rules 2017.

TENDER SPECIFICATION

TENDER SPECIFICATION FOR ADVANCE CARDIC LIFE SUPPORT AMBULANCE D TYPE QTY-2	
1	**General Details**
1.1	Complete interior paneling of the sidewalls with FRP/ABS/ACP sheet with suitable aluminum foil gas wool insulation
1.2	The FRP (fiberglass laminate) /ABS Polymer
1.3	· Thickness – minimum 5.0mm
1.4	· Inbuilt colour
1.5	· Fire retardant as per IS - 6746 of 1988 or latest
1.6	· Should meet lamination standard IS - 10192 or latest
1.7	There should be PUF / PU min. 12 mm thick or thermocol min. 40mm thick or equivalent insulation or reduction of heat and noise within the patient compartment. The insulating material should be non-toxic, non-settling type, vermin proof, mild dew proof and non-hygroscopic.
2	Sufficient reinforcement for holding the wall mounted equipment securely while in transit should be built into the side walls. Un obstructed access &full functionality of the fittings/equipment as required for optimal patient care must be ensured in this compartment. Adequate provision for storage of medicines/consumables/equipment should be made by providing lockable cabinets &drawers. These should be made of fire-retardant material, in sync with the ambulance's internal look and feel. The drawers should be on steel guide ways &provided with ball socket locks to arrest the drawers opening during motion of ambulance.
3	The floor should be of Water proof Marine plywood with Anti-skid Transport Flooring of minimum 1.5 mm thickness (DIN 51130, EN423, DIN4102 -1) with aluminum powder coated channeling
3.1	The complete interior should be edgeless and suitable for easy cleaning / scientific fumigation / treatment of disinfectants. The ambulance interiors should be designed with care to avoid injuries by fall of equipment or cylinder on persons inside the ambulance in case of turmoil due to bad road conditions. Upholstered padding/cushions shall be provided at the upper interior areas of the door frames. Similar padding/cushions also shall be furnished at other areas that may can cause injury.
3.2	**Door: The patient compartment for entry and exit of personnel as well as loading and unloading of the ambulance cot.**
3.3	This door shall not be less than 117 cm in height with minimum width of 112 cm and the door opening should be side-ways. Each door should be hinged at least at two places and should have firm latching provision. It shall be capable of being positively restrained in the open position. A "Door-Open" warning device shall signal (indicate in the cab) when doors are not closed. Each door shall have effective compression or overlapping seals to prevent leakage of exhaust fumes, dust, water, and air.
3.4	When the patient compartment doors are not 270 degrees opening, a red light or reflector, minimum 7.6-cm (3-in.) diameter, shall be installed, one on the interior surface of the side of each rear door. The reflectors shall be so positioned as to provide maximum visibility when the doors are in the fully open position. The opening of the door should be possible from inside and outside always. Under no condition, during travel mode, this door should open.
3.5	The doors of the patient's compartment shall be fitted with a security system which enables the following:
3.6	· Lock and unlock from inside without use of a key;
3.7	· Lock and un lock from outside with use of a key;
3.8	· Unlock from the outside using a key when the door is locked from the inside

4	Windows: In the patient's compartment, there shall be a minimum of two full width fixed windows. There shall be one openable (sliding/tilting/ roll down) window. The windows on the rear doors and side walls should be fitted with toughened tinted glass and should be positioned and screened to ensure patient's privacy.
4.1	A seat for the Doctor/Paramedic should be installed facing towards the rear of the patient compartment & it should be near to the primary patient's head for easy accessibility. This seat must have adequate restrains for the passenger and should be fitted with an adjustable head rest and foldable arm rests.
4.2	An Attendant with backrest suitable to accommodate minimum 3sitting patients. A minimum 50mm thick high-density cushion to be provided for comfort. The squad bench should be upholstered with waterproof washable cover and should have adequate restrains for the sitting patients.
4.3	There should be a soap dispenser and tissue dispenser provided near the washbasin.
4.4	A reliable, robust &easy to use Sterillium/Bactorub/equivalent alcohol-based hand rub dispenser supporting standard off the shelf bottles of minimum 500ml capacity should be provided at a suitable location which should be within easy reach of the doctor/paramedic.
4.5	Two numbers of multipurpose fire extinguishers of ABC Type (ISI marked &conforming to BIS: 13849-1993 or latest) duly filled, of capacity and quantity as per the provisions of Central Motor Vehicle Rules 1989 should be provided.
4.6	All fitments/equipment/outlets/switches/storage spaces, etc. in the patient compartment should be permanently &clearly labeled in English. The font used should be easily readable and in contrasting color of the background.
4.7	All the hardware like rails, channels, sliders, locks, catchers, hinges, handles should be best quality of branded material (heavy duty renowned brands).
4.8	House the Stainless Steel (SS-304) wash basin minimum 410MM diameter, maximum of 420 diameter Depth minimum165MM maximum 170mm with water taps (Brass with chrome plated) supplying water through Motorized Pump (12 V DC or AC power operated), with foot operated control mounted on the bottom of the medicine rack vertically, to pump the water from the fresh water tank.
4.9	The Wash Basin Pump should have water tap positioned so that by washing hands, water should not fall outside the basin.
4.1	Provision for Liquid hand wash carrier to be fitted on to the left side of the wall near wash basin with sufficient reinforcement. Liquid should fall directly into basin when pressed.
4.11	Provide a good quality needle destroyer
5	**Oxygen Delivery System**
5.1	The ambulance shall have piped medical oxygen system (manifold) capable of storing and supplying medical grade oxygen. The manifold should have oxygen cylinders of D size only manufactured as per IS:7285, BIS-certified and approved by the Chief Controller of Explosives, Government of India, Nagpur (two D type cylinders.) These cylinders should be changeable from outside the patient compartment and a cylinder changing wrench should be housed at an appropriate location.
5.2	These cylinders should be individually connected to a pressure regulator each in such a way that one-cylinder acts on duty and the other as a stand-by. Both these regulators should reduce the cylinder pressure to a static outlet pressure of 4.12 bars / 60 psi and should include a safety relief valve and a locking mechanism to prevent settings from being inadvertently changed. It should maintain accurate readings and calibrations during ambulance operation and not be affected by the temperature conditions.
5.3	Changing from one cylinder to the other should not affect the distribution pressure in any way
5.4	The patient cabin must have a panel for oxygen supply status with analog pressure gauge. The display panel should be for use with Medical Oxygen and should have display windows to constantly indicate the oxygen pressure level of the cylinder by two analog pressure gauges
	. There should also be a visual and acoustic low oxygen pressure alarm.

5.5	The connections of the high-pressure regulator, isolation valve, high &line pressure sensors, high-pressure connecting hose from cylinder to high-pressure regulator, low-pressure hose from the outlet of the high-pressure regulator to the terminal outlet block should be connected to each other using high-pressure flexible connectors. There should be no welded joints in the entire connection assembly of the oxygen distribution system. The manifold should be so designed that it shall ensure proper fixation of cylinders during travel and should ensure easy cylinder changing and positioning. There should not be any electrical connection in near vicinity or inside the oxygen cylinder housing, except pressure regulator integrated with flow control valve.
5.6	Minimum two oxygen outlets for the primary patient, flush with right side wall or fitted flush on an outlet panel board near the primary patient's head end (distance between patient head and oxygen / air outlets to be less than 89 cm) to be provided - one outlet normally meant for Oxygen therapy through flow meter &one meant for driving breathing equipment like ventilators, etc.
5.7	These duplex outlet stations shall be appropriately labelled, and colour coded as per IS standards to indicate their use with medical grade oxygen. Oxygen outlet stations shall be installed with sufficient vertical space to accommodate attachment of flow meters, humidifiers, and nebulizers. There shall also be sufficient horizontal clearance to prevent interference with the suction inlet quick-disconnect if any and equipment directly attached thereto.
5.8	The oxygen outlets should be universal in design to be able to accommodate the probe of the oxygen flow-meter and the probe of the driving gas hose of the ventilator directly in one single action without any intermediate connectors and adapters.
5.9	A door for the Trolley to be cut (as per drawing) and fabricated with locking facility
5.1	i) The Cylinder compartment should be properly sealed from all sides along with the Door side to protect and avoid any chances of dust entering this compartment. Rubber beading to be provided on compartment (door seating area).
5.11	ii) This trolley should be designed with M.S. angle frames 40x4 to hold two D Type Oxygen cylinders (each could independently be taken out), under medicine cabinet securely with a toggle clamp for fastening, Safety lock to be provided to prevent accidental opening of toggle clamp. Reliable and durable locking/unlocking the trolley and cylinders on trolley with auto locking provision to be provided. Oxygen cylinder covering brackets top and bottom should be riveted with asbestos material for cylinder grip to avoid movement and noise in running
5.12	iii) High Pressure Tubing: 280 bar/ 4060 psi test pressure, with male /female (5/8 inches) bull nose Brass connectors (Only Drop forged brass connectors to be used) at both the ends, to connect it from the oxygen cylinder to the pressure regulator inside the patient cabin;
5.13	iii) Humidifier Bottle: Poly Carbonate Bowl with metal Cap and T type inlet outlet nipples - 1 no. All the connectors should be of chrome plated on brass material.
5.14	iv) Flow Meter: Brass with chrome plated body, Poly carbonate tube, to regulate the flow from 0 to 15 liters per mint. It should be a back pressure compensated
6	**Noise**
6.1	The ambulance should be designed and assembled of its aggregates and components to meet the noise level requirements in dB (A) scale, as per IS 3028-1998. Necessarily, the noise levels in the patient compartment measured at six different locations [patient ear, rear side of interior of ambulance, front side of interior of patient compartment, on left
	and right side of patient cabin - with reference to center line of the cabin] should not exceed 80 dB(A)
7	**Air-Conditioning For Patient & driver Cabin**
7.1	The AC unit should be Roof / Engine Mounted Parallel Flow Condenser (Length- minimum 712 MM X Width 635 MM X Thickness 26 MM) – Subros / Carrier or Equivalent with Double Cooling Fans. The gas used for Air conditioning should be environment friendly as per International regulatory requirements. The engine idling rpm should be so designed and tuned to fulfill the requirements of AC Unit.
7.2	With engine driven compressor 10S17of Subros / TM16 / SandenSD7:

7.3	To ensure proper ventilation in case of AC failure, two superior qualities roof / wall mounted fans be provided in the patient & Driver compartment to ensure adequate air flow.
8	**SIREN**
8.1	A high-quality combination electronic siren with integrated Public Addressing Systemofminimum100W(PMPO)providential. The siren's controls should have full range volume control and should permit the following sounds: Manual, Wail, and Yelp. The siren sweep rate should be 10-18 cycles per minute (ambulance mode). The microphone should be of a noise-canceling type. Siren/Speakers shall not protrude beyond the face of the bumper or bumper guards if provided in there. The control panel for this system should be fixed at a suitable location in the driver compartment
9	**Exterior Special Lighting and Illumination**
9.1	In addition to the signaling and lighting requirements as per the CMVR, the ambulance should have the following lighting fitments(12V):
9.2	· LED based flashing lights with top blue lens having minimum four LED flashers visible on both sides of the ambulance (integrated or enclosed in a light bar) mounted on the roof top. The LED flashers should flash cyclically using appropriate flashers.
9.3	· At least two LED flashers & one spot lamp on both sides of the ambulance as well as two flashers & a rear loading lamps on the rear wall of the ambulance mounted at the highest position feasible. (The rear loading light shall automatically be activated when rear doors are opened.)
10	**Interior Patient Compartment Illumination**
10.1	There should be diffused flicker free automotive grade (12V, minimum 4000° Kelvin) lighting in the patient compartment. All interior lighting shall be flush mounted and should not get loose or fall during vehicle movement or vibration. Normal white illumination within the patient compartment without outside ambient light shall not be less than 160 Lux (lx) when measured along the centerline of the clear floor; and 376 lx on at least 90% of the surface area of the primary patient cot. At least one patient compartment light and rear loading lamp shall be automatically activated when the patient compartment rear doors are open.
11	**Electrical System**
11.1	There shall be two independent forward electrical circuits in the ambulance: the OEM-Base Vehicle Circuit and the non-OEM electrical circuit. At no point shall the forward OEM base vehicle circuit be tampered with to provide for any non-OEM electrical load requirements.
11.2	Each ambulance should have additional 'supplementary battery sufficient enough to power the non-OEM electrical load requirements of the homologated vehicle. These batteries should be located at a suitable location outside the patient compartment and should be automatically charged by the vehicle alternator while the vehicle is on and via220V external AC supply if connected when stationary. The alternator of the base vehicle should be suitably augmented to ensure the same and it should also provide required output for continuous operation.
11.3	An appropriate battery charger / inverter should be provided to enable charging of the supplementary batteries via external 220V AC supply whenever connected and to fulfil AC load requirements of the ambulance if any. A recessed external charge port with spring loaded lid suitable for connecting the external 220V AC power supply should be provided on the exterior of the vehicle at a suitable place. A 10 Meter length, three (3) core, 10 gauge / equivalent charging wire with high quality male three pin ends to be provided. This wire should be house data suitable and easily accessible location in the ambulance.
11.4	There should be a cut-off switch provided at a suitable location outside the patient cabin to isolate the non-OEM forward electrical circuit. This circuit breaker should be labelled and housed at an easily accessible location while also ensuring protection against accidental switching off.
11.5	There should be short-circuiting as well as overload protection through fuses / Mini-Circuit Breakers (MCB) for different segmented electrical installations in the non-OEM electrical

	circuit. The fuse rating should be mentioned on each fuse and three numbers of each fuse should be housed in the fuse box cover or at an appropriate place.
11.6	Adequate AC/DC power receptacles / connections should be provided in the patient compartment to simultaneously power all the equipment's fitments asked for in this document. The mountings of all electrical outlets shall be sturdy enough to handle wire/plug pressure and vibrations during transit. There should be at least one free automotive grade 12V DC receptacle provided in the patient &driver compartment each at an easily accessible location.
11.7	All switches, connectors, end-wiring should be rated to carry out minimum 125% of their maximum ampere load. All wiring should conform to ISI2645 specification. The wiring shall be permanently colour coded or marked the entire length of the wire for identification with easily readable numbers and letters, or both, and routed in conduit. When cables are supplied by a component manufacturer to interconnect system components, these cables need not be continuously colour coded/identified. They shall be coded/ identified at the termination or interconnection points. All added wiring shall be in accessible, enclosed, protected locations and kept at least 15 cm (6 in.) away from exhaust system components.
11.8	Except for those on large wires, such as battery cables, terminals shall be machine crimped to the wiring. A ratchet type hand crimp-er may be used where it is not possible to use a large machine crimp-er. Battery cable terminals, component terminals and connectors exposed to the ambient shall be coated with terminal corrosion preventive compound. Electrical panels that are accessible to accidental contact shall have a protective cover, shield, and so forth, to prevent shorts that can result in injury, fire, or damage to the electrical system.
11.9	Electrical wiring and components shall not terminate in the oxygen storage compartment except for the oxygen-controlled solenoid, compartment light, and switch plunger or trigger device. Wiring necessarily passing through an oxygen compartment shall be routed in a metallic conduit.
12	**Radio Frequency Interference (RFI)**
12.1	The ambulance electrical / electronic and mechanical equipment in running mode / on condition, should meet the Radio Frequency Interference standards [Electro Magnetic Interference (EMI) AIS – 004-1999]
13	**Emblem, Marking & Colour**
13.1	logos, photos and Technical Specifications that need to be designed on the four sides of the exterior surface of the Ambulances shall be provided.
13.2	**Layout Drawings, Operating Manuals, etc.,**
13.3	Comprehensive User Manual/s written in simple English with detailed parts description, operating instructions, service contact numbers, etc. for the Base Vehicle, Patient/Driver Compartment Equipment, Fittings, etc. shall be provided. These should be printed on high quality paper and housed in water-resistant pouches.
13.4	Laminated sheets, clearly showing the Patient and Driver Cabin Layout with location of equipment, fittings, switches, consumables, etc. suitably depicted should be fixed in the patient and driver cabin at suitable locations. Laminated sheet showing the non- OEM electrical wiring diagram complete with location of various fuses and circuit breakers should be displayed in the vehicle at a suitable location.
13.5	A sample drawing showing the layout of the patient cabin for an ALS Ambulance provided for reference. This drawing represents an ideal ambulance layout, and bidders should follow this guidance regarding the location and positioning of medical equipment and patient care ergonomics.
14	**Quality Assessment and Inspection**
	One demo vehicle to be produced in front of the technical committee and must be approved before being taken up for production.
14.a	**General:**
	i) One pouch of appropriate size to be provided for placing ambulance records with proper reinforcement in a suitable place

	ii) Provision for placement of power switches / sockets/ fans/ air conditioner and forupgradingotherelectricalitemsshallbemadeavailableinpaneledwalls.
	iii) Provision for Two I.V hooks &one IV holders should be made on the front RHS wall and one at rear RHS wall with proper reinforcement and Velcro.
	iv) Adequate provision for safeguarding oxygen regulator, flow meter and humidifier on the right-side panel to be provided.
	v) Six plug switch boards with on/off switches of standard quality (230 V AC) to be made available on the RHS wall around Medical Equipment's console Area.
	vi) Identification sticker for all electrical switches, medical equipment and racks etc. to be pasted.
	iv) Stair chair to be placed on the LHS of Rear Door with proper reinforcement.
	v) Provision for fitment of Collapsible stretcher mounting &lock bracket on floor board to be provided
14.b	**Fire extinguisher hold:**
	i) Provision to be made Leather stitched Velcro with reinforcement for placing a fire extinguisher should be provided as per drawing. A Stainless-Steel holding bracket to be provided on the floor with proper size.
14.c	**Window Covering:**
	i) All the rear side windows should have non-transparent white film pasted from inside, more than half of the height of the window to avoid any visibility into the ambulance.
14.d	**Scope of Electrical Work:**
	12) Inverter:
	i) True sine wave inverter,
	ii) The Inverter should be of well-known brands like Luminous, Microtech or equivalent
	iii) Inverter Capacity - 800watts or better
	iv) Input Range - AC 130 v, 270V / DC 9.5V, 13.8V,
	v) Frequency - 50 Hz,
	vi) Power Factor - 0.8,
	vii) Output Voltage – 220(+/-)10% (regulated output from full charge battery voltage to low charged battery voltage)
	viii) Waveform - Single Pulse PWM
	ix) Efficiency - 85%
	x) Charger - Heavy duty CC/CV type with current limit at 12A with wide input range (150V-270A)
	xi) Integrated AC/DC supply inside the vehicle synchronous with alternator.
	xii) 10 Meter length three core 10-gauge charging wire with male three pin ends to be provided
	xiii) Provision to be made to charge the batteries placed inside the driver's cabin with external AC power.
	The electrical Wiring should be done in consultation with the Inverter Manufacturer's recommendation, and should provide certification to prove this.
14.e	**Light bar:**
	i) LED based aerodynamic shaped, Double layered structure, Combination of continually lit, turning lamps as per AIS 125 std
	ii) Long life span, high luminance, Voltage: DC 12V, Power: 25W
	iii) With integrated double diaphragm type Siren, Public Addressing System of 100W (PMPO) output as per AIS 125 Std.
	iv) Light bar to be mounted on front roof of the vehicle with suitable fixtures
14.f	**15) Electrical Wiring:**
	i) All main components like:
	(a) AC Blower

	(b) Condenser Fans,
	(c) Each of Internal Lightning (Led Lights),
	(d) Internal Lightning (Spot Lights),
	(e) External Lights (Flashers),
	(f) External Lights (Spot/Flood Lights).
	(g) Light Bars,
	(h) Each of Medical Equipment Powering Sockets etc.…
	Should have separate circuits, (Power drawn directly from source (with proper cut off switch after Battery/Inverter) and a Fuse in it).
	All precautionary measures should be taken in to consideration within the Scope of Auto Electrical work to avoid any accidental fire incidence during installation of any Electrical gadget, or any provision for that.
14.g	**Fuse and Other Safety Measures:**
	i) Battery main cut off switch to be provided without naked wires or mounting.
	ii) A separate Fuse to each of the (as mentioned above) circuits to be given.
	iii) There should be an Indicating sticker to be pasted to each fuse on the fuse box to identify the Fuse separately.
	iv) There should not be any joints given within the Circuit Wiring,
	v) At any unavoidable wiring junction(s) the wires should be joined through Bakelite Connectors.
	vi) There should not be any loose wiring and loose joints.
	vii) Other than vehicle wiring harnesses, all wires/harness used should be made with fire proof grade.
	viii) All the electrical wires and accessories should carry ISI Mark, with CML Number and be approved by technical committee and should be of (ARAI/ISI) automobile standards.
	ix) All other unspecified Parts necessary for the Wiring should be of Automobile grade and/or ISI Certified with CML Number.
	x) Same color code wires to be used for all ambulances for respective circuits.
	xi) All wiring harness should be covered with crocodile sleeves and should be routed properly.
	xii) All relays should be of electronic type only.
	xiii) All the holes drilled for wire routing, holes edges to be covered with rubber sealing (Grommet) to prevent wire damage.
	Xiv) Driver & Co driver door open warning lights for other vehicles
14.h	**Clock:**
	i) A standard quality LED/Digital clock to be provided in the patient
	compartment.
14.i	**DC connections Socket:**
	i) DC Socket12 V near Equipment area to be provided.
	Roof / Wall mounted fans:
	i) Half Safety metal guard. Screw mounting with brushless Oscillating, 200 mm fan blade, operated by DC12V in2nos. in the Patient compartment,
	ii) One fan (same as above) in Pilot Compartment.
	iii) Roof light to be fitted in pilot cabin.
	Front and rear rubber mud flaps to be provided.
	Approval from the Transport Commissioner of Karnataka is mandatory. Complete Graphics to be done as per the purchaser specifications and designs. (in line with the customers branding requirements)
	White retro reflecting tape to be fixed for front bumper-complete length
	Red retro reflecting tape on rear door bottom-complete length

	Yellow retro reflecting taping to be fixed on LH and RH side of the complete length of the body as per RTA rules and regulations. (2 inch in size retro reflecting tape should be used)
14.j	**Warranty:**
	a) five-year Warranty for all parts of Medical Equipment and Fabrication.
	b) Vehicle warranty as per the vehicle manufacturer
15	**ENGINE**
15.1	The vehicle should have Diesel Engine Type.
15.2	The vehicle should have Turbocharged with Intercooler Engine Aspiration.
15.3	The vehicle should have 4 cylinders and above
15.4	The vehicle should have Emission Norms of BS-VI
15.5	The vehicle should have Engine Capacity of 2,500 cc and above
15.6	The vehicle should have Max. Net Engine Output of 80 to 100 HP or better
15.7	The vehicle should have Max. Net Torque of 250to 350 Nm at 1400 to 2500 rpm or better
15.8	The vehicle should have Fuel Injection Pump of BOSCH / MICO / DELPHI
15.9	The vehicle should have Insulated with fire retardant material and dampening liner properly locked and sealed.
15.1	The vehicle should have Air Conditioning (Including Driver's Cabin) of 1.5 Ton Capacity or better, Inbuilt
15.11	The vehicle sir Conditioning system should be connected to the vehicle battery.
15.12	The vehicle should have Axle Drive of Rear
15.13	The vehicle should have Color of the Vehicle of RAL 5013 (Blue)
15.14	The vehicle should have Top Speed of 80 Kmph and above
15.15	The vehicle should have a braking Distance of ≤ 37 meters.
15.16	The vehicle should have Clutch Type of Dry, Single Plate, Hydraulic
15.17	The vehicle should have Transmission System of Manual
15.18	The vehicle should have Fuel Tank Capacity of Minimum 70 liters or above
15.19	The vehicle should have Fuel Efficiency of Minimum 12 kmpl or above
16	**OVERALL, BODY DIMENSIONS**
16.1	The vehicle should have Body type of Monocoque for streamlined structure and easy communication to the patient cabin and driver compartment.
16.2	The vehicle should have Overall Length of 3300 mm and above for patient Compartment.
16.3	The vehicle should have Overall Width of 1600 mm and above for Patient Compartment:
16.4	The vehicle should have Overall Height of 1800 mm and above for Patient Compartment:
16.5	The vehicle should have Ground Clearance of 200 mm and above to have a clear height not to touch speed breakers and stones underneath axles and suspension.
16.6	The vehicle should have Kerb Weight of 2900 Kgs and above.
16.7	The vehicle should have Gross Vehicle Weight of 3,900 kg and above to carry payload and equipment.
16.8	The vehicle should have a Wheelbase of 3000 mm and above for a good length of the vehicle.
16.9	The vehicle should have a Payload of more than 1,000 kg above.
17	**TECHNICAL SPECIFICATION FOR INTERIOR FABRICATION WORK ON ALCS AMBULANCE VEHICLE D TYPE**
17.1	PATIENT CABIN: FRP interior for all door pad, all side wall paneling and interior roof. Fiber thickness (5 mm), FRR (Fire Retardant Resin) as per ASTM D543-84 and BS476 part 6&7 Standard, Aluminum foil covered Glass Wool Insulation (25mm) between Body Cell & Fiber or Equivalent
17.2	DRIVER CABIN: Unitex Mat Upholstery Work.
17.3	DRIVER CABIN: Both Door pads of FRP material with warning LED lights when the doors are opened.

17.4	PATIENT CABIN: 800VA, High frequency inverter, Pure Sine Wave Output, Pa with 90AH sealed mobile lead maintenance free battery of good quality.
17.5	PATIENT & DRIVER CABIN: Complete wring, sleeves with channel routed. SCB (Short Circuit Breaker) Switch for 220V ac line &12V line Fuses with fuse box for all 12V light. Specify the make.
17.6	PATIENT CABIN: Marine Ply with Vinyl flooring (PVC). Features; No wax, no polish, Wear Layer Polyurethane reinforcements, multicolor, scratch resistant, slip resistance suitable for automobiles. It should have a long life with high wear and tear resistance with minimum thickness 1.5mm or more. It should be as per ARAI std. (IS15061-2002).
17.7	DRIVER CABIN:12VCoach Fan, Product of Remi, India & 12V/18W Tube light, product of Remi, India or Equivalent.
17.8	AIR CONDITIONING: for a patient cabin with a cooling capacity 18000 BTU or more.
17.9	PATIENT CABIN: 220VAC outlet plug points for ventilator, defibrillator, monitor etc.-8Nos or more
17. 10	PATIENT CABIN: 12v Coach Fan-2 Nos
17. 11	PATIENT CABIN: Medicine rack, 3 drawers with containers for keeping bandage gauze& other sterile items with locking systems. Should have separate provisions for keeping drugs. Should have sturdy handles and separate locking mechanism. Material MDF with Acrylic sheet cover.
17. 12	PATIENT CABIN: Wash basin, electrically foot switch operated with 15-liter water tank capacity. The water or the wash basin should have a filling facility from outside the vehicle with cover.
17. 13	PATIENT CABIN: Pigeon cupboard for keeping medicines (minimum 20 drugs)
17. 14	PATIENT CABIN: Retractable Doctor seat with safety belt with hand rest.
17. 15	PATIENT CABIN: Patient attender seat (specify the numbers of seater) with safety & under storage provision
17. 16	PATIENT CABIN: Suitable stretcher base for storing scoop stretcher & spine board.
17. 17	GAS SOURCE: Complete gas PU flexible with tubing embedded in panel having superior stainless outlet points for oxygen (In 0.02 outlet for oral mask & In 0.02 outlet for ventilator) with Rail mounting system (RMS) for loading & unloading the 2Nos of 'D' type bulk cylinders. (Oxygen cylinders are Not included in the scope of supply) (Low O2 Alarm, O2 Cylinder Pressure Manometer & 0.2 Micro Dust Filter. (RMS Cylinder Area Dimension: 1600*635*369mm approx.).
17. 18	PATIENT CABIN: Full FRP overloaded cupboards with 3 Or 4 compartments with toughened glass door in RHS of the ambulance to store medical equipment accessories and the doors should be provided with suitable locking mechanisms. Hinges should not be visible outside.
17. 19	PATIENT CABIN: Cupboard 6 compartments for storing heavy items near the side of the patient trolley covering the wheel base.
17. 20	PATIENT CABIN: Patient examination LED light, 220V AC.
17. 21	PATIENT CABIN: Night lamp LED.
17. 22	PATIENT CABIN: Suitable LED Lights shall be provided with good illumination.
17. 23	PATIENT CABIN: 2 IV Bottle hooks or more
17. 24	PATIENT CABIN: Color coded Dustbins with appropriate colors as per Biomedical Waste Management Rules 2016, for segregation, collection and disposal of Biomedical Waste & fire extinguisher- 2Kg.
17. 25	EXTERIOR: Red, Blue high illuminating LED side blinking lights 2Nos on each side (left, rear, and right side) LED light spec- 235x182x74mm – LWH (Total 6 Nos).
17. 26	EXTERIOR: Complete painting, luminescence sticker works as per the design & UV Radiation resistant sun control film for all windows. (Design will be provided by the Institute).
17. 27	EXTERIOR: FRP Designer bigger foot rest for easy access into the patient cabin. specify the dimension.

17. 28	EXTERIOR: Blue LED siren Lights, 100W siren Amplifier, Public Address System, 100W siren speaker.
17. 29	LED flood light 20W in the rear of the ambulance.
17. 30	LED scrolling display in the rear of the ambulance. Should be controlled from a mobile app and mounted on a suitable spoiler made of FRP.
17. 31	PATIENT CABIN: USB Charger / 12VDC charger facility.
18	**Environment Testing Compliance**
18.1	The ambulance should be CMVR approved monocoque design or fully built on the chassis of a reputable Indian OE manufacturer.
18.2	The ambulance must pass tests such as flammability (IS 15061:2002), interior fitting (AIS-047), air conditioning (AIS 125 Pt I), acceleration (AIS 125 Pt I), waterproofing (IS 11865-1995), and dust ingress (IS 11739-1997). - Compliance with AIS 125 standards and relevant functional requirements for road ambulances. Please specify
18.3	Vehicle certification from ARAI/VRDE/ICAT/CIRT required.
19	**WIRELESS DATA TRANSFER IN AMBULANCE**
19. 1	The vehicle should have continuous transmission of vital sign data (ECG, blood pressure, heart rate, oxygen saturation, etc.) to the receiving hospital.
19. 2	The vehicle should have Wi-Fi/Cellular Network (4G/5G)/Satellite Communication for data transfer.
19. 3	Adherence to healthcare data protection regulations such as HIPAA (Health Insurance Portability and Accountability Act) or GDPR (General Data Protection Regulation) to ensure compliance with privacy and security standards.
19. 4	The vehicle should have a facility to transfer data over a large distance.
20	**WORKMANSHIP CRITERIA FOR ACCEPTANCE**
	The following shall be reason for rejection:
20. 2	Rough, sharp or unfinished edges, burrs, seam, sharp corners, joints, cracks, and dents.
20. 3	Non-uniform panels. Edges that are not filleted, beveled, etc.
20. 4	Paint runs sags, orange peel, “fish eyes”, etc. and any other imperfection or lack of complete coverage.
20. 5	The MIG welding method has to be adopted where welding is done. Welding surface is sprayed with Zinc spray to avoid corrosion
20. 6	Body panels that are uneven, unsealed, or have voids.
20. 7	Misalignment of body fasteners, glass, viewing panels, light housings, other items with large or uneven gaps, spacing etc. such as door, body panels, and hinged panels.
20. 8	Improper body design or interface with the chassis that could cause injury during normal use or maintenance.
20. 9	Improperly fabricated and routed wiring or harnesses.
20. 10	Improperly supported or secured hoses, wires, wiring harnesses, mechanical controls.
20. 11	Loose, vibrating, abrading body parts, components, subassemblies, hoses, wiring harnesses or trim.
20. 12	Loose, vibrating, abrading body parts, components, subassemblies, hoses, wiring harnesses or trim.
20. 13	Leaks of any gas or fluid lines, (AC, coolant, oil, oxygen, etc.)
20. 14	Abnormal Noise, panel vibrations, etc.
20. 15	Sagging, non-form fitting upholstery or padding.
20. 16	Incomplete or incorrect application of rust proofing.
20. 17	Inappropriate or incorrect use of hardware, fasteners, components, or methods of construction.
20. 18	Incomplete or improper welding, riveting.
20. 19	Visual deformities.
20. 20	Lack of uniformity and symmetry where applicable.

20. 21	Test certificates should be obtained for the material procured particularly paints, electrical items
20. 22	Unsealed appurtenances or other body components, gaskets, etc.
20. 23	In addition, any deviation from specification requirements (refer Annexure-I) or any other item, whether or not stipulated herein, that affects form, fit, function, durability, reliability, safety, performance or appearance shall be cause for rejection.
20. 24	Welded, bolted, and riveted construction utilized shall be in accordance with the highest standards of industry. Component parts and units shall be manufactured to definite standard dimensions with proper fits, clearances, and uniformity.
21	**EACH AMBULANCE SHOULD BE PROVIDED WITH FOLLOWING MEDICAL EQUIPMENTS**
1	**Ambulance cot qty-1**
1.1	Roll in Self Foldable Stretcher Type (preferably with capability to convert into wheel chair) of a reputed manufacturer
1.2	Collapsible, with minimum Four swivel wheels to allow cot to be handled and to slide into the ambulance easily without damaging the ambulance floor.
1.3	One person should be able to raise and lower it into an ambulance easily
1.4	Built with anodized aluminum lightweight / stainless steel
1.5	Swing-down side rails to enable convenient patient transfer from bed to cot
1.6	At least three strap-type restraining devices (chest, hip, and knee) to prevent longitudinal or transverse dislodgment of the patient during transit.
1.7	Provision to fix AA type oxygen cylinder
1.8	Dual I.V. holder, capable of being cot mounted
1.9	Fixing devices to secure the stretcher in place not allowing side to side or vertical movement in the ambulance while running.
1.1	Locks on wheels/legs if required to ensure that the stretcher doesn't collapse/move while standing
1.11	50mm or more thick high density foam mattress holstered with water proof and fire proof material
1.12	loading Capacity should be160-180kg.
2	**Scoop Stretcher qty-1**
2.1	Should be light, safe and reliable
2.2	Aluminum alloy with adjustable length
2.3	Clutch Design (lateralized / in center) so that the stretcher can be divided into left and right halves
2.4	Easy to lock and unlock
2.5	3 Quick release buckle belts
2.6	To be supplied with a mountable &detachable Head Immobilizer
3	**Transfer sheet qty-2**
3.1	Two (2) transfer sheet with a minimum of six (6) handles or equivalent
4	**Wheel Chair qty-1**
4.1	Should be light, safe and reliable Made of aluminum alloy with 4 wheels (with locks on front 2 wheels)
4.2	Net weight: less than 10 Kgs
4.3	Loading Weight: 160-180kg
5	**Spine Board qty-1**
5.1	High Density Polyethylene
5.2	Rigid, light & Floatable
5.3	Resistant to bumps and corrosion
5.4	Easy to clean with water & soap

5.5	Xray& MRI compatible
5.6	Load Capacity: 160-180 kg
6	**Suction Machine (Electric) qty-1**
6.1	Ambulance Wall mountable type
6.2	Maximum negative pressure from -200 to -700m bar in steps of 100 or less with suitable setting marks
6.3	Suction capacity 10-16 liters per minutes
6.4	Sufficient capacity 500 ml collection bottles with efficient over-flow protected with adjustable negative pressure (Min. 3 Nos. Polycarbonate & autoclavable with Over flow protection)
6.5	Rechargeable Battery with capacity of 90 minutes
6.6	portable and compact. specify the weight
7	**Emergency Bag with First Aid K qty-1**
7.1	A Pre-Packed Off the Shelf Resuscitation &First Aid Kit Bag made of Nylon/tougher material having space for Emergency Airway Management and Resuscitation including essential drugs, equipment &portable Oxygen Cylinder Type E with regulator, etc.
8	**Video Laryngoscope**
8.1	Should be a video laryngoscope convenient for tracheal intubation
8.2	Should have a camera for live image capturing
8.3	Should have LED light illumination
8.4	Should have color image display facility (LCD/TFT display)
8.5	Should have provision to insert all sizes of endotracheal tubes
8.6	Should have provision to introduce all sizes of suction catheters
8.7	Should have waterproof protection
8.8	Should be supplied with rechargeable battery and provision for recharge
8.9	Should have a battery backup facility of minimum 1 hour
8.1	Should have all blade sizes/adjustable for adult and pediatric laryngoscopy
8.11	If the blades are disposable, should supply 50 nos. of blades compatible for both adult and pediatric with each unit
8.12	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
9	**Transport Ventilator**
9.1	The machine should feature an integrated turbine capable of generating a peak flow of 240-260 L/min.
9.2	The machine should be capable of ventilating both invasive and non-invasive patients, with leak compensation.
9.3	Modes of ventilation:
9.4	Pressure control ventilation
9.5	Dual control modes like PRVC/APV/Auto flow etc.
9.6	SIMV PCV with pressure support ventilation
9.7	SIMV VC with pressure support ventilation.
9.8	Should be able to upgrade modes like DuoPAP, APRV in future
9.9	PSV/CPAP-PS
9.1	NIV (PC), NIV (PS).
9.11	The ventilator should be upgradable to CPR mode, allowing continuous CPR without disconnecting the patient, eliminating the need for manual ambu ventilation.
9.12	Separate control for inspiratory and expiratory time and flow rate
9.13	Adjustable pressure limit to safely cope with all patients
9.14	High inflation pressure alarm
9.15	it should be able to deliver respiratory rate ratio of up to I: 2
9.16	FIO2: 100% oxygen and air mix, approx.45%

9.17	Equipment should be complete with a carry bag, patient circuit, pressure regulator for the oxygen cylinder and relief valve. (Transport Ventilator Kit)
9.18	Provision for Pneumatic Suction & Inhalational Therapy (1 - 15ltrs/min) should be built into the kit Therapy (1 - 15ltrs/min) should be built into the kit.
9.19	Should have airway pressure monitor and a disconnect Visual and audible alarms
9.2	Should have a battery backup facility of minimum 4 hours or more.
9.21	Should have facility to transmission of Patient Vitals via Telemetry for remote monitoring.
9.22	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
10	**Bi phasic defibrillator cum cardiac monitor with recorder qty-1**
10.1	Wall Mounted, Transport defibrillator cum Multipara monitor of reputed make
10.2	lightweight, Easy to Use with both Manual & AED Capabilities
10.3	Suitable for ambulance operation, with adult and pediatric external fixed paddles and Patient cables
10.4	Minimum 6.5 inches Colour LCD Display
10.5	Should be able to deliver shock from 2-200 or more joules through biphasic technology, specify please
10.6	Should have charging time up to maximum joules in less than 6 seconds with a new fully charged battery, Pacer facility
10.7	Should have built in Non-invasive pacing and Spo2 monitoring
10.8	should have a facility for pacing with adjustable range.
10.9	Should have 12 lead interpretative ECG and synchronized cardio version
10.1	Integrated Multi Parameter Monitor with the following parameters:
10.11	NIBP- Adult and Pediatric
10.12	Sp02 - Adult &Pediatric
10.13	EtCO2 Heart Rate
10.14	12 Lead ECG
10.15	Temperature
10.16	CPR feedback sensor
10.17	ECG signal shall be via defibrillator paddles, disposable defibrillation electrodes or patient cables
10.18	Should be able to print critical events via a built-in printer
10.19	AC/DC Modules
10.2	Should have built in charger
10.21	Ambulance Mounting Bracket
10.22	Required leads (5 Nos.), probes (5 Nos.), AED pads (5 Nos.), accessories& manuals to be Supplied along with ECG Jelly, ECG paper roll, ECG electrodes adult and paediatric-5 Nos. each
10.23	Should have facility to transmission of Patient Vitals via Telemetry for remote monitoring.
10.24	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
11	**Syringe Pump qty-1**
11.1	Type: Infusion syringe pump
11.2	Moisture IP34 (water splashing from any direction)
11.3	Display: Colour active matrix 2.4" or more TFT, 240 x 320 pixels,262k colours, viewing angle: all 80°
11.4	Battery: Rechargeable Li-Ion battery Operating time: approx. 10h at 5 ml/h
11.5	Battery backup with 3 hrs. minimum.
11.6	Basal Rates should be 0.01 - 999.9 ml/h
11.7	Accuracy should be ± 2% in compliance with IEC/EN 60601-2-24
11.8	Bolus rate 1 - 1,800 ml/

11.9	Supported Syringe Sizes of 2/3, 5, 10, 20, 30, 50/60 m
11.1	3,000 drugs, including all parameters in up to 30 drug categories
11.11	Automatic detection of syringe size & proper fixing
11.12	Alarm for wrong loading of syringe (e.g., flanges out of slot, disengaged plunger, unsecured barrel)
11.13	Should have Anti-Bolus System
11.14	Should have Pressure Monitoring Line
11.15	Should have facility to transmission of Patient Vitals via Telemetry for remote monitoring.
11.16	Comprehensive Alarm Package like Includes: Occlusion limit exceed alarm, Near end of infusion pre-alarm & alarm, Volume limit pre-alarm & alarm, Low battery pre-alarm & alarm for AC power failure, Drive disengaged alarm
11.17	Should have facility to transmission of Patient Vitals via Telemetry for remote monitoring.
11.18	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
22	**AMBULANCE SHOULD BE PROVIDED WITH FOLLOWING RESCUE TOOLS**
1	**Artificial Manual Breathing Unit (Adult) qty-1**
1.1	Easy Grip manual resuscitator with Size 4 clear hood transparent facemask with silicone cuff
1.2	Adult models (1500 ml to 2000 ml bag capacity)
1.3	Standard 15-22mm Swivel connector, compatible with all common masks and Endotracheal Tubes
1.4	ET Tube Sizes (Cuffed): 6.5, 7, 7.5, 8, 8.5 (5 Nos. each)
1.5	ET Tube Sizes (Plain): 2.5, 3, 3.5, 4.5, 5 (5 Nos. each)
1.6	Magill Forceps: Adult and child (5 Nos. each)
1.7	Provision for Oxygen: Allows supplemented oxygen from reservoir providing 100% oxygen
1.8	Non-Rebreathing Valve: Enables patient to inspire oxygen from the reservoir bag
1.9	Supplied with proper carrying case
2	**Artificial Manual Breathing Unit (Child & neonatal) qty-1**
2.1	Easy Grip manual resuscitator with Size 0A Circular Pedi transparent facemask with silicone cuff
2.2	Child models (500 ml to 250 ml bag capacity)
2.3	Standard 15-22mm Swivel connector allows connection to all common masks and Endotracheal Tubes
2.4	Provision to give supplemented oxygen from reservoir providing 100% oxygen
2.5	Non-rebreathing valve enabling the patient to inspire oxygen from the reservoir bag
2.6	Supplied with proper carrying case
3	**Laryngoscope with curved blades (Macintosh/equivalent type) (1 set each for adult and child)**
3.1	Standard equipment in metal with standard size curved blades (Adult & Child)
3.2	Should be fiber optic fiber.
3.3	Handle should have comfortable grip
3.4	Good quality light source
3.5	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
4	**Cervical collar qty-2**
4.1	Two Nos. of reputed make and quality
4.2	Should be of reputed make & quality
4.3	Adjustable to 4 different sizes, pre-moulded chin support, locking clips, and rear ventilation panel, enlarged trachea opening
4.4	Made of high-density polyethylene and foam padding with one-piece design for efficient storage where space is limited, X-ray lucent, and easy to clean and disinfect
4.5	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)

5	**Glucometer qty-1**
5.1	Make should be of a reputed brand with disposable lancets (pack of 100 - 5 Nos.) and Gluco strips (pack of 50 - 5 Nos.)
5.2	Stethoscope (for adult and child) qty-1
5.3	Should be of a reputed brand
5.4	Tunable diaphragm with a bell
5.5	High-quality buffed stainless-steel snap-tight ear tubes
5.6	Poly vinyl chloride double lumen tubing, 76 cm in length
5.7	Soft sealing ear tips
5.8	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
6	**Nebulizer**
6.1	Compressed air nebulizer
6.2	Atomizer (Diaphragm-type / Piston type) electric aspirator
6.3	Tolerant and for continuous use in Pre-Hospital settings
6.4	Operating voltage: 230 V AC with Battery backup (minimum 90 minutes backup)
6.5	Maximum pressure: 3.5 bar
6.6	Air power: 14 liters per minute
6.7	Aerosol output: 106 µ per minute
6.8	Residual volume: 1.24 ml
6.9	Droplet size: MMAD 3.3 microns or better
6.1	Filling volume: maximum 7 ml
6.11	Noise level: 55 dBA
6.12	In-built thermal cut-off system desirable
6.13	Provision for fixing/hanging in the Ambulance
6.14	Nebulizer mask - adult and pediatric (5 Nos. each)
6.15	Nebulizer mask - adult and pediatric (5 Nos. each)
6.16	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
7	**Pulse Oximeter**
7.1	Make should be of a reputed brand, specify please
7.2	specify technology like Nelcore, Masimo.
7.3	Battery-operated Fingertip type with digital display
7.4	Should have facility to transmission of Patient Vitals via Telemetry for remote monitoring.
7.5	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
8	**Fetal Doppler**
8.1	LCD display with white backlight
8.2	Portable design, specify weight
8.3	Accurate and reliable FHR (Fetal Heart Rate) detection
8.4	Highly sensitive probe with DSP technology, Frequency 2.0 MHz in continuous wave
8.5	Dimensions (minimum): 330 x 230 x 70 mm
8.6	Fetal Heart Rate (FHR) measurement range: 30 BPM - 240 BPM
8.7	Accuracy: ±1% or ± 1 BPM
8.8	Should have facility to transmission of Patient Vitals via Telemetry for remote monitoring.
8.9	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
9	**BP apparatus with adult and pediatric cuffs**
9.1	Display: LCD Digital Display
9.2	Measurement Range: Pressure: 0 to 299 mmHg, Pulse: 40 to 180/min.
9.3	Accuracy/Calibration: Pressure: ±3mmHg or 2% of reading, Pulse: ±5% of reading

9.4	Inflation: Automatic by electric pump
9.5	Deflation: Automatic pressure release valve
9.6	Rapid Air Release: Automatic exhaust valve
9.7	Measurement Method: Oscillo metric method
9.8	Power Source: 1.5V 4 “AAA” batteries and a power adapter to be provided
9.9	Battery Life: Approx. 300 uses with 4 new alkaline batteries
9.1	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
10	**Auto CPR**
10.1	Delivers consistent and effective chest compressions without requiring manual intervention.
10.2	Ensures that compressions are within the recommended depth and rate (typically 2 inches deep and 100-120 compressions per minute).
10.3	Should perform compressions continuously, reducing the risk of human fatigue and providing higher-quality care over long periods.
10.4	should be portable, allowing paramedics or healthcare workers to carry them to the patient.
11	**Tourniquet machine**
11.1	Pneumatic Tourniquet System (Automatic or Manual)
11.2	Pressure Range should be 50 mmHg to 500 mmHg
11.3	Pressure Accuracy should be ±1-2 mmHg
11.4	Inflation Method should be Pneumatic (air-driven)
11.5	Display Types should be LCD or LED display
11.6	Limb Cuffs should be Soft, medical-grade, latex-free
11.7	Safety Features should be Pressure monitoring, leak detection, emergency release
11.8	Power Source should be AC or rechargeable batteries
11.9	Battery Life should be 4-8 hours
11.1	Backup Power should be there, for power failure
11.11	Multiple Channel Functionality for multiple limb surgeries
11.12	Should have safety certificate from a competent authority (CE, FDA (US), CDSCO)
12	**Search light(rechargeable)**
12.1	Shall be able to withstand the rugged condition of the emergency usages
12.2	Shall be durable, even after repeated use
12.3	Rechargeable, Handy, 4 W
13	**Fire Extinguisher– 6 Kg with fixing stand**
13.1	Stored Pressure Type
13.2	6 Kg capacity
13.3	Dry Chemical Powder ABC Based
13.4	Shall be able to withstand the rugged condition of the emergency usages
13.5	Shall be durable, even after repeated use
23	**EMT Bag kit with below items**
23. 1	Airway Management
23. 2	- Oropharyngeal airways (OPA) – assorted sizes
23. 3	- Nasopharyngeal airways (NPA) – assorted sizes
23. 4	- Pocket mask with oxygen inlet
23. 5	- Nasal cannula (adult & pediatric)
23. 6	- Non-rebreather masks (adult & pediatric)
23. 7	- Manual suction device (hand-powered)
23. 8	Bleeding Control & Trauma Care
23. 9	- Sterile gauze pads (4x4, 5x9, 8x10)

23. 10	- Roller bandages (2", 4", 6")
23. 11	- Trauma dressings (large absorbent)
23. 12	- Hemostatic dressings (QuikClot or similar)
23. 13	- Tourniquets (CAT, SOFTT, SWAT-T)
23. 14	- Adhesive bandages (assorted sizes)
23. 15	- Triangular bandages
23. 16	- Medical tape (1" and 2")
23. 17	- Elastic bandages (ACE wraps)
23. 18	Burn Care
23. 19	- Burn dressings (Water-Jel or similar)
23. 20	- Sterile saline or water ampoules for irrigation
23. 21	- Non-adherent dressings
23. 22	Fracture & Immobilization
23. 23	- SAM splints (malleable, foldable)
23. 24	- Triangular bandages (for slings)
23. 25	- Elastic bandages
23. 26	Medications & IV Supplies (For Advanced EMTs)
23. 27	- Epinephrine auto-injector (EpiPen)
23. 28	- Naloxone (Narcan) – intranasal & injectable
23. 29	- Albuterol nebulizer with tubing & mask
23. 30	- Aspirin (81 mg chewable tablets)
23. 31	- Oral glucose gel
23. 32	- IV start kit (catheters, saline lock, tourniquet)
23. 33	Diagnostic Tools & Monitoring
23. 34	- Stethoscope
23. 35	- BP cuff (manual, adult & pediatric)
23. 36	- Pulse oximeter
23. 37	- Glucometer with test strips and lancets
23. 38	- Digital thermometer
23. 39	- Penlight
23. 40	Personal Protective Equipment (PPE)
23. 41	- Nitrile gloves (multiple pairs)
23. 42	- Face masks (surgical & N95)
23. 43	- Eye protection (goggles or face shield)
23. 44	- Disposable gowns and shoe cover
23. 45	- Hand sanitizer
23. 46	- Biohazard bags
23. 47	Miscellaneous Supplies
23. 48	- Emergency blanket (mylar)
23. 49	- Cold packs & heat packs
23. 50	- Trauma shears
23. 51	- Tweezers
23. 52	- Multi-tool or rescue knife
23. 53	- Flashlight with extra batteries
23. 54	- Notepad and pen
24	**Ophthalmoscope**
24. 1	Light Source should be LED or Halogen (adjustable brightness)

24. 2	Lens System should have a range from +10D to -30D for refractive errors
24. 3	Apertures should have Multiple options (large, small, slit, red-free, macula)
24. 4	Rechargeable or disposable batteries
24. 5	Magnification ranges from 1x to 3x magnification
24. 6	Adjustable focus for clarity at different distances
24. 7	Field of View typically from 2.5° to 5°
24. 8	Weight: 200g - 400g
24. 9	Should have shockproof, resistant to minor impacts
25	**Otoscope**
25.1	Light Source should be LED or Halogen (adjustable brightness)
25.1	Magnification ranges from 2.5x to 4x magnification
25.1	Rechargeable or disposable batteries
25.1	Adjustable focus for clarity during examination
25.1	Provides a clear view of the ear canal and tympanic membrane
25.1	Weight: 200g - 400g
25.1	Should have shockproof, resistant to minor impacts

***(To be submitted In the company letter head by supplier)**

Declaration of Local Content by Local supplier

Subject: Public Procurement (Preference to Make In India)

References:
Preference to Make in India including counter offering will be as per the Public Procurement (Preference to Make in India), Order 2017 available in the following links https://dipp.gov.in/public-procurements

http://dipp.nic.in/sites/default/files/publicProcurement_MakeinIndia_15June2017.pdf
http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017_28052018.pdf
https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019_0.pdf
https://dipp.gov.in/sites/default/files/PPP%20MII%20Order%20dated%204th%20June%202020.pdf

We hereby declare with reference to above subject and references that

M/s ----------(Tick whichever is applicable as below)

"Class-I local supplier" meeting the requirement of minimum local content equal to 50% (fifty percent) or more defined in the above government notification for the goods and services
(or)
"Class-II local Supplier" meeting the requirement of local content 20% to less than 50% (fifty percent) defined in the above government notification for the goods and services

(or)

Non Local supplier (If not belonging to Class-I & Class-II)

Please mention the details against the following:

Enquiry no:---------- dated. ----------

Type of Supplier (Class-I/Class-II) ……

Product:----------

Project:……..

Details of location at which local value addition will be made is as follows:

We also understand that the false declarations will be in breach of the code of Integrity under rule 175(1)(i)(h) of the General financial rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Authorized Signature M/s----------
(Signature and seal)

Place:……..

Date:……