कर्णाली स्वास्थ्य विज्ञान प्रतिष्ठान

शिक्षण अस्पताल, जुम्ला

COVID-19 निदानको लागि आवश्यक सामग्रीहरु आपूर्ति सम्वन्धि कार्य

सुचना प्रकाशित मितिः २०७६।१२।२९

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वेवसाइट : www.kahs.edu.np

फोन नं : ०८७ ५२०३५५

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(सूचना प्रकाशित मिति २०७६/१२/२९)

COVID-19 निदानको लागि आवश्यक सामग्रीहरु आपूर्ति सम्वन्धि कार्यका लागि प्रस्ताव आव्हान

विश्वव्यापी माहामारीका रुपमा फैलिएको COVID-19 को रोकथाम, नियन्त्रण तथा उपचारका लागि Isolation Ward, प्रयोगशाला र ICU सेवा विस्तारका लागि आवश्यक पर्ने विभिन्न सामग्रीहरु सार्वजनिक खरिद ऐन २०६३ को दफा ६६ तथा सार्वजनिक खरिद नियमावली २०६४ को नियम १४५ र कर्णाली स्वास्थ्य विज्ञान प्रतिष्ठानको आर्थिक प्रशासन नियमावली २०६९ बमोजिम विशेष परिस्थितिमा तत्काल खरिद गर्नु पर्ने भएको हुँदा इजाजत प्राप्त इच्छुक फर्म, कम्पनी वा आपूर्तिकर्ताहरुले तपशिलका शर्त भित्र रहि यो सूचना प्रकाशित भएको मितिले पाँच (५) दिन (कार्यालय समय) भित्र यस प्रतिष्ठानको ईमेल ठेगाना info@kahs.edu.np मा प्रस्ताव पेश गर्न हुन जानकारी गराईन्छ ।

१. यो सूचना प्रकाशित भएको मितिले ५ औं दिन (मिति २०७७/०१/०३) को ५:०० बजे (कार्यालय समय) भित्र यस प्रतिष्ठानको email: info@kahs.edu.np मार्फत आफ्नो प्रस्ताव पेश गर्नु पर्नेछ ।

२. रित पूर्वक पेश भएका प्रस्तावहरु प्रस्ताव बुझाउने अन्तिम मिति समाप्त भए पश्चात यस प्रतिष्ठानमा प्रस्तावदाता वा निजको प्रतिनिधिको रोहवरमा खोलिने छ । प्रतिनिधि उपस्थित नभएपनि प्रस्ताव खोल्न वा मुल्याङ्कन गर्न वाधा पर्ने छैन ।

३. प्रस्तावदाताहरुले अनुसूचि "क" बमोजिमका उल्लेख भएका सम्पूर्ण सामग्रीको आफूले कबोल गरेको मु. अ. कर बाहेकको दररेटलाई अङ्क र अक्षर दुवैमा अनिवार्य रुपमा लेखिएको हुनु पर्नेछ । अङ्क र अक्षरमा फरक परेमा अक्षरमा लेखिएकोलाई मान्यता दिइनेछ ।

४. प्रस्तावदाताले आफुले आपूर्ति गर्ने सामग्रीहरुको स्वच्छ तथा उचित मुल्यका साथ आपूर्ति गर्ने सामग्रीहरुको स्पेसिफिकेसन सहित प्रस्ताव पेश गर्नु पर्नेछ ।

५. प्रस्तावदाताले प्रस्ताव पेश गर्दा सामान आपूर्ति गरि जडान गर्न लाग्ने समय समेत अनिवार्य खुलाई प्रस्ताव पेश गर्नु पर्नेछ ।

६. प्रस्तावदाताले प्रस्तावका साथ तपशिलमा उल्लेख गरिएका कागजातहरु अनिवार्य रुपमा पेश गर्नु पर्नेछ ।

(क) अनुसूचि "क" मा उल्लेख भएका (आफुले आपूर्ति गर्न चाहेका) सामग्रीहरुको अङ्क र अक्षरमा दररेट उल्लेख गरेको संलग्न अनुसूची (क) दररेट पत्र,

(ख) आ.व. २०७५।०७६ को कर चुक्ता प्रमाणपत्र वा कर चुक्त नगरेको भए म्याद थप गरेको पत्र समावेश गर्नु पर्ने छ ।

(ग) उद्योग, कम्पनी तथा फर्म दर्ता प्रमाणपत्र ।

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(घ) प्यान नम्वर तथा मु. अ. कर लाग्ने सामानहरु आपुर्ति गर्ने कम्पनीहरुको हकमा मु. अ. कर खर्ता भएको प्रमाणपत्र ।

(ङ) खरिद कारवाहीमा भाग लिन अयोग्य नभएको, प्रस्तावित खरिद कारवाहीमा आफ्नो स्वार्थ नबाझिएको र सम्वन्धित पेशा वा व्यवसाय सम्वन्धी कसुरमा आफूले सजायं नपाएको भनी लिखित रुपमा गरेको घोषणापत्र ।

(च) आपूर्ति गर्ने सामग्रीहरुको प्राविधिक स्फेसिफिकेसन ।

७. प्रस्तावदाताले दररेट उल्लेख गर्दा केरमेट गरेको, टिपेक्स लगाएको ठाउँमा सहिछाप नगरेको, वा आफ्नो तर्फबाट कुनै शर्त राखी पेश गरेको बोलपत्रलाई मान्यता दिईने छैन ।

८. कुनै पनि प्रस्ताव आंशिक वा पूर्ण रुपमा स्वीकृत गर्ने वा नगर्ने सम्पूर्ण अधिकार प्रतिष्ठानमा निहित रहनेछ । म्याद नाघेको र रीत नपुगेको प्रस्ताव उपर कुनै कारवाही गरिने छैन ।

९. उल्लेखित सामग्रीहरु आपूर्तिकर्ताले प्रस्ताव स्वीकृत भएको मितिले १० दिन भित्र यस प्रतिष्ठानको केन्द्रिय कार्यालय जुम्लामा आपूर्ति गर्नु पर्नेछ ।

१०. प्रतिष्ठानको आवश्यकता अनुसार सामग्रीहरुको परिमाण निर्धारण गरि माग गरिनेछ ।

११. यस अन्तर्गत सामग्री खरिद कार्यको प्रतिस्पर्धा प्रत्येक सामग्रीहरुको छुटा छुटै गरिने भएको हुदा कुनै पनि प्रस्तावदाताले एक वा एक भन्दा वढी सामग्रीहरु विड गर्न सकिनेछ ।

१२. संझौता गरी सामान आपूर्ति नगर्ने फर्मलाई नियमानुसार कालोसूचीमा दर्ताको लागि सम्वन्धित निकायमा लेखि पठाइनेछ ।

१३. आपूर्तिकर्ताले आपूर्ति गरेका प्रत्येक सामग्रीहरुको कम्तीमा पनि १ वर्षको वारेन्टी अवधि रहनेछ ।

१४. आपूर्तिकर्ताले सामग्रीहरु यस प्रतिष्ठानमा आपूर्ति गरिसके पश्चात आवश्यक जडान र संचालन गरेर समेत देखाउनु पर्नेछ ।

१५. यस सूचनामा छुट् हुन गएको अन्य शर्तहरुको हकमा यस सूचनामा उल्लेख भए अनुसार तथा कर्णाली स्वास्थ्य विज्ञान प्रतिष्ठान आर्थिक प्रशासन नियमावली २०६९, सार्वजनि खरिद ऐन २०६३ र सार्वजनिक खरिद नियमावली २०६४ मा उल्लेख भए अनुसार हुनेछ ।

१६. यस बारेमा अन्य जानकारी आवश्यक परेमा प्रतिष्ठानको मुख्य कार्यालय जुम्लामा सम्पर्क राखी बुझ्न सकिनेछ ।

रजिष्ट्रार

रकम भुक्तानी सम्बन्धी व्यवस्था

प्रतिष्ठानबाट माग भए अनुसारको परिमाणका सामग्रीहरु ढुवानी भई गुणस्तर जाँच भई स्टोर दाखिला भएपछि आपूर्तिकर्ताले सम्वन्धित कार्यको विल पेश गर्नु पर्नेछ । यस्तो भुक्तानी एकाउन्टपेयी चेकबाट गरिने छ र आपूर्तिकताको तर्फबाट व्यहोर्नु पर्ने सम्पूर्ण करहरु लगायत नियमानुसार कट्टा गर्नु पर्ने रकम कट्टा गरेर मात्र भुक्तानी दिइनेछ ।

विवादको समाधान

कुनै विवाद भएमा आपसी समझदारीमा समाधान हुन नसकेमा प्रतिष्ठानको निर्णय नै अन्तिम हुनेछ । साथै सम्झौता अनुसार कार्य गर्दा कुनै वाधा अड्काउ परेमा आपसी सहमतिद्वारा समाधान गर्न सकिनेछ ।

कानूनी उपचारको ब्यबस्था

यस प्रतिष्ठानले गरेको खरिद कारवाही वा निर्णय गर्दा कुनै त्रुटि हुन गएमा वा केहि विवाद भएमा सो सम्वन्धमा सार्वजनिक खरिद ऐन २०६३, सार्वजनिक खरिद नियमावली २०६४ र कर्णाली स्वास्थ्य विज्ञान प्रतिष्ठानको आर्थिक प्रशासन नियमावली २०६४ बमोजिम हुनेछ ।

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TECHNICAL SPECIFICATION:

1. Real Time PCR Machine:

Technical Specification for Real Time PCR with DNA detection / extraction System

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Real Time PCR with DNA detection/ extraction System	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer			
	Brand			
	Type/Model			
	Country of Origin			
1	**Description of Function**			
1.1	Real Time PCR is an instrument that employs precise temperature control and rapid temperature changes to conduct the polymerase chain reaction (PCR) with Realtime amplification of DNA/RNA from purified samples.			
2	**Operational Requirements**			
2.1	Real Time PCR Thermal Cycler system along with spinner of micro centrifuge tubes and pcr tubes.			
3	**System Configuration**			
3.1	Real Time PCR Thermal Cycler system with automatic DNA extraction / detection System			
4	**Technical Specifications for Real Time PCR**			
4.1	**Thermal Cycle System:** Peltier based 96 well format			
4.2	**Calibrated Dyes:** FAM/SYBR Green, VIC/JOE/HEX/TET, ABY/NED/TAMRA/Cy3, JUN, ROX/ Texas Red, Mustang Purple, Cy5/LIZ			
4.3	**Reaction Volume:** 10 – 50 µL			
4.4	**Sample Format:** 0.1ml PCR tubes× 96, 8× 12 PCR plate or 96 well plate × 1			
4.5	**Temperature Accuracy:** ± 0.2°C			
4.6	**Temperature Uniformity:** ± 0.2°C			
4.7	**Temperature range:** 4 – 100°C			
4.8	**Max. Heating/Cooling rate:** 6 °C/sec or more			
4.9	**Temperature gradient setting range:** 30 – 100°C			
4.10	**Temperature gradient difference setting range:** 1 – 36°C			
4.11	**Consumables:** 0.1 ml PCR tubes, 8 tube strips, 96 well plates			

5	**Fully auto DNA detection / extraction system**			
5.1	**Detection Device:** PMT device for detection			
5.2	**Detection Mode:** Time-resolved signal separating technology			
5.3	**Excitation light source:** 4/6 monochrome high efficiency LEDs			
5.4	**Excitation/detection wavelength range:** 455-650nm/510-715nm			
5.5	**Fluorescent channels:** 4/6 channels			
5.6	**Sensitivity:** Single copy gene			
5.7	**Resolutions:** 1.33 folds copy number difference can be distinguished in single-plex qPCR			
5.8	**Dynamic range:** 10 orders of magnitude copies			
5.9	**Contamination Protector:** The system must have contamination protector so as to avoid DNA carryover contamination.			
5.10	**Software:** Should have user friendly software for data analysis			
6	**Computer Requirement:**			
6.1	**PC/Laptop Configuration:** CPU core I3/I7, 2.7 GHz or above; minimum 4 GB RAM; minimum 500 GB Hard Disk Drive; High Speed DVD R/W; Keyboard (IOS), Mouse and Mouse Pad; Preloaded latest **MS Windows Versions activated;** Monitor size 19" or higher			
7	**Accessories, Spares and Consumables**			
7.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
8	**Operating Environment**			
8.1	UPS Backup of suitable rating for at least 30 minutes to be supplied for the entire system			
8.2	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
8.3	Power supply: 220-240V/ 50 Hz AC Single phase fitted with appropriate plugs to meet purchaser's country requirements. The power cable must be minimum 3 metres long.			
9	**Standards and Safety Requirements**			

9.1	Must submit ISO 9001 or ISO 13485:2003/ AC: 2007			
9.2	CE or USFDA approved product certificate.			
10	**User Training**			
10.1	Must provide user training (including how to use and maintain the equipment).			
11	**Warranty**			
11.1	Comprehensive warranty for 2 years			
12	**Maintenance Service During Warranty Period**			
12.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
13	**Installation and Commissioning**			
13.1	Supplier must accomplish proper installation & commissioning on site.			
14	**Documentation**			
14.1	User (Operation) manual in English.			
14.2	Service (Technical / Maintenance) manual in English.			
14.3	List of important spare parts and accessories with their part number and costing.			
15	**General requirements**			
15.1	Supplier's must be responsible form timely maintenance and service			
15.2	supplier's must assure to supply required reagents and kits for minimum 5 years			
15.3	With the co-ordination of supplier's, user must get required training on regular basis			

2. PCR Reagent Kit (Corona Testing):

Reagent set supporting Real Time PCR Machine used for corona testing.

3. Video Laryngoscope :

Technical Specification of Video Laryngoscope specification:-

- Display monitor should not be more than 2.4"
- Display monitor should be fixed and mount on the blade.
- Monitor should have Video output capability to be compatible with external monitor and recording devices.
- Viewing angel should be at least 160 degree.
- It should work on common batteries and can be used continuously for more than 1 hour.
- The sterile blade should have design to provide minimal lifting of soft tissue and impact on teeth during laryngoscopy and intubation.
- Sterile blade should be available in channelled and non – channelled version.
- Wide range of blade available for child and infant patient / Adult
- Channel blade should be available at least in two sizes and Non-channel blade should be available in three sizes.
- Equipment should have Anti Fog Lens and White LED light source.
- Equipment should be supply with 2pc of each size blade.
- Cost of disposable blades to be provide.
- Should meet international quality standards.
- Should have ISO and CE marks confirming to international standards of safety.

4. Ventilator (Adjustable):

Technical Specification of ICU Ventilator	
Technical Specification for Ventilator Machine	
	Manufacturer :
	Model No. :
	Country of Origin :
	Made In :
	Brand :
	Type/Model :
Standard Features	
1	The Single knob ventilator should be Dual micro-processor controlled for easy future upgradability. Must have circuit compliance and leakage compensation.
2	Screen must be colored and touch with at least 10" screen size or more.
3	It should be suitable for use on Adult and Paediatric from 10 kg onwards.
4	It should have automatic patient parameter setup based on Ideal Body weight Setting
5	It should operate on mains AC supply (220-240V, 50-60Hz).
6	It should be compressor based. The compressor should be supplied from the same manufacturer.
7	The machine should have weaning facility.
8	Machine should have dual limb breathing system.
It should have following modes available:	
9	Basic : A/C - vol & Press, SIMV- Vol & Press, PS and CPAP
10	Advanced : PRVC/PLV (or equivalent), APRV (or equivaent), Vol Support (or equivalent), Tube compensation.
11	Non Invasive mode in pressure and volume modes in Volume and Pressure modes.
It should have following settings controls/monitoring:	
12	Tidal Volume : 50 ml to 2,000 ml or more.
13	Peak Flow : 135 lpm or more
14	Respiratory Rate : 1 to 80 b/m or more.
15	Inspiratory time : 0.2 to 10.0 sec.
16	I:E Ratio :≥ 1:9 to 4:1
17	Inspiratory pressure : 5 to 80 cmH2O or more
18	Pressure Support: 0-50 cmH2O or more
19	PEEP/CPAP : 0 to 35 cm H2O or more
20	Plateau time : 0.0 to 2.0 sec
21	Flow pattern : Square & Descending ramp.
22	Rise time adjustment : 0 to 1500 ms or more.
23	Trigger Type : Pressure trigger (0.1 to 15 CmH2O) and Flow trigger (0.1 to 20 l/m)
24	Should have O2 flush for 2 mins for 100% FiO2
25	Should have manual inspiration setting in all modes for ambu like breaths
Basic Montioring	
26	Breathe Type indicator to display patient trigger for Controlled and Spont. Breaths
27	Delivered O2 %.
28	PEEP, PIP, Pmean, Pplat, Static compliance, dynamic compliance, Insp/Exp. Resistance
29	Exhaled and Spont minute volume.
30	Exhaled Tidal volume.
31	I:E Ratio
32	Rapid Shallow Breathing Index
33	Spontaneous Inspiratory time (Ti Spont)
34	Dynamic and static Compliance
35	Dynamic and static Resistance

36	Auto PEEP & total PEEP
37	Spontaneous flows - inspiration and expiration
38	Ti Spont
Advanced Monitoring	
39	It should display Volume - time curve, Pressure -time curve, Flow -time curve and Pressure -volume, Pressure -Flow & Flow -volume loop.
40	Curves & loops can be user-selectable to freeze with the flexibility to change scale horizontally or vertically or both with the adjustment facility of base line for analysis
Apnea Management	
41	It should have user-defined apnea back-up ventilation in selectable mode of VC or PC
42	Should have automatic patient detection on patient connect.
Alarm Management	
43	It should have following (Audible & Visual) three level Alarms systems classified with Information, Warning & Advisory :
44	Power failure
45	Low Battery
46	High Circuit Pressure
47	High/Low Exhaled minute volume
48	High/Low exhaled Tidal volume
49	High Respiratory rate
50	Apnea
51	Ventilator Inoperative
52	Pressure/Flow Transducer failure
53	Occlusion and safety ventilation
54	It should have trending (both Numeric/Tabular & Maneuaver) for 72 hrs atleast for all parameters
Accessories	
55	Adult reusable autoclavable circuits- 1 for each machine
56	Pediatric reusable autoclavable circuits - 1 for each machine
57	Adult test lung for each machine
58	Digital display humidifier with complete set - each for machine
Terms And Conditions:	
59	The unit should be CE marked to European medical devices directive or FDA certificates must be valid.
60	The supplier must submit the original brochure or e-copy.
61	The supplier should fill the technical tender form snd clearly mention the manufactures, modelno., and country of origin/ Made in, else technically will be disqualified.
62	If the technical team wants to examine physically which is not supplied in our hospital, the demonstration of the quoted model may be required during the technical evaluation. The evaluation is also based on the demonstration of the machine. If the bidder can't demonstrate the machine within the requested time, bid will be automatically disqualified.
63	The bidder must submit a valid authorization from the manufacture.
64	Should have 1 years complete parts (Including Reusable accessories) & service warranty and additional 1 years service warranty from the date of complete installation (delivery & Installation of machine of all the items as per tender.
65	The principle company should be responsible of fulfilling warranty/ guarantee, in case local authorized agent is not able to achieve the same.The commitment letter of the same should be attached.

66	Onsite repair & maintenance training and operational training to the hospital's biomedical engineer,Biomedical technicians and users.
67	The machine supplied should be brand new with the date of manufacture mentioned and the country of origin should be clearly mentioned.
68	One (Hard and soft) copy of serve & operating manual in English for each set should be provided at the time of installation.

5. Monitor - 7 Para:

Bedside Monitor -(7 Para)

S No.	Purchaser's Specifications		Bidder's Offer
	Bedside Monitor		
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Description of Functions**		
1.1	A bedside patient monitor to monitor physiological parameters of patients in the critical care units, operating theatres, emergency rooms or general wards.		
2	**Operational Requirements**		
2.1	It shall operate on AC power supply as well as built-in battery the weight should not exceed 4 KG.		
3	**System Configurations**		
3.1	Patient monitor with ECG, Resp., SpO2, NIBP, 2-ch x Temp, 2-ch x IBP and EtCO2. It should have C.O. in options.		
3.2	All accessories, consumables, wall mounts and etc. required for monitoring of physiological parameters specified herein.		
4	**Technical Specifications**		
4.1	High resolution colour flat panel non-reflective LED touch screen: > 12" display size for minimum of 8 channel waveforms display		
4.2	Display of minimum of 8 physiological parameters without the need for external devices		
4.3	Display waveform: ECG, SpO2, pulse wave, respiration, IBP and Capnography.		
4.4	Numeric data display: heart rate / pulse rate, respiration rate, NIBP (Systolic, Diastolic and Mean), SpO2 and current time of NIBP measurement.		
4.5	Use interaction via integrated touch screen, press pad/button and rotary knob.		
4.6	With powerful data storage for up to 48 hours of full disclosure, 1200 hours of tabular and graphic trends and 1000 NIBP measurements.		
4.7	Should have up to 100 arrhythmia events with associated waveforms; and		
4.8	Should have up to 100 alarm events with associated waveforms		
4.9	Should have Real Time ST complex view and comparison		
4.10	Should have large font display to offer a clear view of all vital signs and view other bed function to monitor other patients directly at the bedside without accessing central station.		
4.11	Should have OxyCRG display for monitoring newborns, which shows HR trend, SpO2 trend, RR trend and a compressed wave.		
4.12	Should have personalized user setting and be duplicate among bedside monitors		
4.13	Should have multi-channel arrhythmia analysis and 24 types of arrhythmia classification		
4.14	Should have ST analysis and ST templates		
4.15	Should have Real Time QT/QTc monitoring		
4.16	Should have 24 hours ECG analysis summery		
4.17	Should have facilities of QRS detection, Arrhythmia and St segment analysis, Qt/Qtc monitoring.		
4.18	Should be able to perform dose calculations and hemodynamic calculations.		
4.19	Should show Perfusion Index (PI) numeric.		

S No.	Purchaser's Specifications	Bidder's Offer
4.20	In auto mode of NIBP, the monitor should show unit of pressure, time of last measurement, time remaining to next measurement, measurement mode, NIBP measurement interval, alarm limits for SYS and the current SYS, DIA and Mean pressure.	
4.21	The monitor should be able to monitor SpO2 and NIBP on the same limb simultaneously without any false alarms such as no pulse etc.	
4.22	Should be able to view another monitor on a monitor screen without the use of a central monitoring system. The alarms from another bed can be shown and notify the user even the bed to bed window is closed.	
4.23	Should have Lithium Ion battery to allow up to 4 hours for continuous monitoring	
4.25	Should have stop watch timer (count-up and count-down)	
4.26	Should be no fan design	
4.27	Should have multifunctional output connector and can output ECG, IBP, Nurse call and defib sync signals at the same time by 1 connector.	
4.28	Should have RJ-45 or Wi-Fi for upgradation to central monitoring system.	
4.29	Should supply with wall mounting bracket for each monitors.	
	Parameter required:	
4.30	3 Lead ECG with cable, 1 set	
4.31	SpO2 Probe and connector, 1 set.	
4.32	NIBP connection hose and cuff, 1 set	
4.33	Skin Temperature probe, 1 set	
4.34	IBP, 2 cable with 2 kit each	
4.35	Side stream EtCO2 kit, 1 set	
4.36	Come with internal rechargeable Lithium battery complete with built-in charger	
4.37	Monitor shall be operated by the battery for at least 240 minutes	
4.38	Come with Alarms for all monitored parameters including: exceeding user-selectable upper and lower limits, life threatening alarms, lead/ probe/ sensor disconnection, system failure or error.	
4.39	Alarm shall have at least 3 levels: Crisis, Warning, and Advisory	
4.40	Alarm notification shall be given by Audible and Visual signal	
4.41	With networking capability to interface with the central monitor	
4.42	Must have IPX1 waterproof	
4.43	Must have RoHS compliance	
4.44	Must have type CF defibrillation proof for ECG, NIBP, SpO2, RESP, TEMP, IBP and C.O.	
5	**Accessories, Spare Parts and Consumables**	
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).	
6	**Operating Environment**	
6.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.	
6.2	Power supply: 100 – 240VAC, 50-60Hz fitted with appropriate plug. The power cable must be at least 3m in length.	
7	**Standards & Safety Requirements**	
7.1	Must submit ISO13485:2016 for Medical Devices **AND**	
7.2	**CE (93/42 EEC Directives) and USFDA** approved product certificate.	

S No.	Purchaser's Specifications	Bidder's Offer
7.3	Shall meet IEC-60601-1-2:2007/AC:2010 General Requirements of Safety for Electromagnetic Compatibility.	
7.4	Shall meet the safety requirements as per IEC 60601-2-27:2006/AC:2006—Medical electrical equipment—Part 2: Particular requirements for the safety of electrocardiographic monitoring equipment.	
8	**User Training**	
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.	
9	**Warranty**	
9.1	Comprehensive warranty for 1 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.	
12	**Documentation**	
12.1	User (Operating) manual in English	
12.2	Service (Technical / Maintenance) manual in English	
12.3	List of important spare parts and accessories with their part numbers and costing.	
12.4	Certificate of calibration and inspection from factory.	

6. Monitor- 5 Para:

Bedside Monitor (5 Para)

S No.	Purchaser's Specifications		Bidders Offer
	Bedside Monitor		
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Description of Functions**		
1.1	A bedside patient monitor to monitor physiological parameters of patients in the critical care units, operating theatres, emergency rooms or general wards.		
2	**Operational Requirements**		
2.1	It shall operate on AC power supply as well as built-in battery and should have integrated accessories bin and the weight should not exceed 4 KG.		
3	**System Configurations**		
3.1	Patient monitor with ECG, Resp., SpO2, NIBP and Temp		
3.2	All accessories, consumables, wall mounts and etc. required for monitoring of physiological parameters specified herein.		
4	**Technical Specifications**		
4.1	High resolution colour flat panel non-reflective touch screen: > 10" display size for up to 7 channel waveforms display		
4.2	Display of up to 7 physiological parameters without the need for external devices		
4.3	Display waveform: ECG, SpO2, pulse wave, respiration.		
4.4	Numeric data display: heart rate / pulse rate, respiration rate, NIBP (Systolic, Diastolic, Mean), SpO2 and current time of NIBP measurement.		
4.5	Use interaction via integrated touch screen, press pad/button and rotary knob.		
4.6	With powerful data storage for up to 48 hours of full disclosure, 1200 hours of tabular and graphic trends and 1600 NIBP measurements.		
4.7	Should have up to 128 arrhythmia events with associated waveforms; and		
4.8	Should have up to 1800 alarm events with associated waveforms		
4.9	Should have Real Time ST complex view and comparison		
4.10	Should have large font display to offer a clear view of all vital signs and view other bed function to monitor other patients directly at the bedside without accessing central station.		
4.12	Should have OxyCRG for monitoring newborns.		
4.13	Should have personalized user setting and be duplicate among bedside monitors		
4.14	Should have multi-channel arrhythmia analysis and 24 types of arrhythmia classification		
4.15	Should have ST analysis and ST templates		
4.16	Should have Real Time QT/QTc monitoring		
4.17	Should have 24 hours ECG analysis summery		
4.18	Should have Lithium Ion battery to allow up to 4 hours (optional 8 hours) for continuous monitoring		
4.19	Should have 0.75m drop protection		
4.20	Should have stop watch timer (count-up and count-down)		
4.21	Should be no fan design		
4.22	Should supply with wall mounting bracket for each monitors.		
	Parameter required:		
4.23	3 Lead ECG with cable, 1 set		

S No.	Purchaser's Specifications	Bidders Offer
4.24	SpO2 Probe and connector, 1 set.	
4.25	NIBP connection hose and cuff, 1 set	
4.26	Skin Temperature probe, 1 set	
4.27	Come with internal rechargeable Lithium battery complete with built-in charger	
4.28	Monitor shall be operated by the battery for at least 240 minutes	
4.29	Come with Alarms for all monitored parameters including: exceeding user-selectable upper and lower limits, life threatening alarms, lead/ probe/ sensor disconnection, system failure or error.	
4.30	Alarm shall have at least 3 levels: Crisis, Warning, and Advisory	
4.31	Alarm notification shall be given by Audible and Visual signal	
4.32	With networking capability to interface with the central monitor	
4.33	Must have IPX1 waterproof	
4.34	Must have RoHS compliance	
5	**Accessories, Spare Parts and Consumables**	
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).	
6	**Operating Environment**	
6.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.	
6.2	Power supply: 100 – 240VAC, 50-60Hz fitted with appropriate plug. The power cable must be at least 3m in length.	
7	**Standards & Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**	
7.2	**CE (93/42 EEC Directives)** and **USFDA** approved product certificate.	
7.3	Shall meet IEC-60601-1-2:2001 General Requirements of Safety for Electromagnetic Compatibility.	
7.4	Shall meet the safety requirements as per IEC 60601-2-27:1994—Medical electrical equipment—Part 2. Particular requirements for the safety of electrocardiographic monitoring equipment.	
8	**User Training**	
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.	
9	**Warranty**	
9.1	Comprehensive warranty for 1 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.	
12	**Documentation**	
12.1	User (Operating) manual in English	
12.2	Service (Technical / Maintenance) manual in English	

S No.	Purchaser's Specifications	Bidders Offer
12.3	List of important spare parts and accessories with their part numbers and costing.	
12.4	Certificate of calibration and inspection from factory.	

7. Suction Machine:

Technical Specification of Suction Machine:

S.N	Specification	Bidder's Offer
1	Power Supply: AC 220 V, 50 Hz	
2	Suction Pump: Piston Pump	
3	Negative pressure Adjustment Range: Between 0.02 MPa-0.08 MPa	
4	Fuse Pipe: RF Ø 5x 20/2.0A	
5	Pumping Rate: Above 0.02 MPa-0.08 MPa	
6	Reservoir: 2500ml/pc, 2pcs in the suction unit	
7	Shape Size: 380x312x480mm	
8	Ultimate negative pressure Unit: ≥0.09 MPa	
9	Power 150VA	
10	Weight Approx. 15 kg	

8. USG Machine (3 Port) with Eco:

Technical Specification of Colour Doppler Ultrasound Machine with Echo				
S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Ultrasound Machine with Echo	Yes/ No	Ref Docs Page No.	Remarks
	Manufacturer			
	Brand			
	Type/Model			
	Country of Origin			
1	Description of Function			
1.1	A hand carried portable Color Doppler Ultrasound Scanner, widely used in diagnosis of abdomen, obstetrics, gynecology, cardiology, small parts (breast, thyroid, testis, etc.), musculoskeletal , peripheral vascular, urology, orthopedics and Pediatrics etc.			
2	Operational Requirements			
2.1	It shall operate on AC power supply as well as built in rechargeable battery. The machine is intended to be carried to the field or the patient ward with the inbuilt battery system to examine patients who could not come to USG room.			
3	System Configuration			
3.1	System shall come with main unit, 3 probes, 1 unit of black and white video thermal printer and Mobile Trolley.			
4	Technical Specifications			
4.1	Main applications: OB/GYN, abdominal, cardiac and small parts.			
4.2	The system shall have latest generation with Minimum grey scale resolution to be 256 with 1024 or more digital processing channels.			
4.3	Imaging Modes: B Mode, B/B Mode, quad B, B/M Mode, M Mode, Color velocity/variance, Power/Directional Power, Pulse Wave Doppler, High Pulse Repeat Frequency, Tissue Harmonic Imaging , Continuous Wave Doppler , Tissue Doppler Imaging etc.			
4.4	The Systems Shall have following Features:			
	Trapezoid for B image mode			
	Steer scanning for Linear probes (B, Color/Power, PW independent)			
	Spatial Compounding Imaging			
	Tissue Specific Imaging			

	Extended Field of View Imaging			
	Speckle reduction imaging			
	Tissue Harmonic Imaging			
	Zoom for one key image enlarged to full screen			
4.5	The system shall be offered with Physical 8-slide pot control adjustment for TGC curve.			
4.6	System should have function of Split screen to display two live scanning image side by side			
4.7	Shall have facility for image zoom, freeze, text annotation.			
4.80	The System must have integrated high – resolution Colour LCD/ TFT/Single monitor of 15 Inches or more.			
4.90	System should have a Full sized Alphanumeric Keyboard with Track ball and Backlit Keys.			
4.10	System should support transducer like Linear, Phased array, Convex, without need of any extra hardware and software.System should have at least 2 active ports connectivity.			
4.11	System should have ability to enhance tissue margins and improve contrast resolution by reducing artefacts and improving visualization of texture patterns and needle tip within the image.			
4.12	System should have software for enhanced needle visualization to track the needle clearly at the steep angles during the procedures while maintaining striking image quality of the target strictures and the surrounding anatomy with simple On/Off functionality.			
4.13	Cine memory: Atleast 12000 Frames in B mode and 10000 Frames in Color Mode.			
4.14	Should have multiple USB port connectivity.			
4.15	Frame rate: not less than 350 fps.			
4.16	Display depth: minimum 38cm. or more.			
4.17	Obstetric Analysis: GS (Gestational Sac), CRL (Crown Rump Length), NT (Nuchal Translucency), BPD (Biparietal Diameter), HC (Head Circumference), AC (Abdominal Circumference), FL (Femur Length), F-Kidney(Fetal Kidney Length), HrtC (Heart Circumference), TCD (Cerebellum Diameter), Matrix Kidney Lenght, Cist Magna, GA (Estimate of Gestation age), Fetal weight,Heart Rate Etc.			
4.18	Body markers.			
4.19	Time & slope for M-Mode.			
4.20	With tissue optimization function.			

4.21	With function to reduce patch noise and other image artefacts without compromising quality of images.			
4.22	Dynamic range, selectable up to approximately 220 dB.			
4.23	Image storage: System should have be able to store at least 320 GB data/image on main unit.			
4.24	System shall be DICOM Compatible Imaging System.			
4.25	Focus : Adjustable			
4.26	**Facility for future upgradeability.**			
	3D/4D Imaging			
	Panaromic Imaging			
4.27	System should comes with USB ports, Ethernet port and should direct connectivity to Laser/Thermal Printer for Printing Images and Reports.			
5	**Following Transducer should be available with the Unit:**			
5.10	Curved Array Transducer with **2-6 MHz** for General Abdominal, OB/GYN, Pediatric,Vascular & Urology Applications.			
5.20	Linear Array Transducer with **5-10 MHz** for Small Organ, Vascular, Orthopedics, Musculo-skeletal, Nerve, Pediatric Applications.			
5.30	Phased Array Transducer with **2-5 MHz** for Cardiac, Abdominal, Applications.			
5.40	System should have built-in battery backup at least 90 min. or more backup.			
5.50	The unit should be compact, light weight and portable . weight should not be exceed 10kg including rechargeable batteries.			
5.60	It shall come with a Manufacturing Company made trolley on caster to hold the main unit on top with provision of a probe holder, thermal printer and ultra sound gel.			
6	**Accessories, spares and consumables**			
6.1	**Accessories:** • Black and white video thermal printer with 2 rolls of high density recording paper • Ultrasound carrying bag: 01 unit.			
6.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			

7	**Operating Environment**			
7.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
7.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 2 metre in length.			
8	**Standards and Safety Requirements**			
8.1	Must submit ISO 13485 or ISO 9001 **AND**			
8.2	CE (93/42 EEC Directives)			
8.3	Must submit USFDA approved product certificate.			
8.4	Electrical safety conforms to standards for Electrical Safety IEC 60601-2-37 requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment.			
9	**User Training**			
9.1	Must provide user training (including how to use and maintain the equipment).			
10	**Warranty**			
10.1	Comprehensive warranty for 1 years after acceptance.			
11	**Maintenance Service During Warranty Period**			
11.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
12	**Installation and Commissioning**			
12.1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
13	**Documentation**			
13.1	User (Operating) manual in English.			
13.2	Service (Technical / Maintenance) manual in English.			
13.3	List of important spare parts and accessories with their part number and costing.			
13.4	Certificate of calibration and inspection from factory.			

Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted. Failure in doing so may lead to rejection of bid from technical committee

9. Infusion Pump:

Technical Specification of Infusion Pump
Configuration, performance and technical characteristics

	Specification	Bidder's Offer
STRUCTURE:	Weight no more than 1.6 kg	
	Embedded handle for easy carrying	
	LCD Display with high visibility	
	Quick IV sets installation	
CONSUMABLE	Standard IV seets are compatible with the unit	
	User-defined configuration possible	
GENERAL FEATURES	Operating Modes: Rate mode, Time mode, Body weight mode, Sequential mode	
	Delivery rate 0.1-1500ml/h,	
	VTBI: 0.1-9999ml, step 0.1 ml;	
	Preset Volume(VTBI): 0.1-9999ml	
	KVO Rate: 0.1-5.0ml/h adjustable, step 0.1ml/h	
	Bolus Rate: Automatic/Manual bolus, 0.1-1500ml/h, default 800ml/h	
	Preset bolus volume: 0.1-9999ml	
	Purge Rate: 800ml/h	
	Self-test system	
	Anti-bolus function. Reduces significantly bolus after occlusion release	
	Titration function: Available to change the delivery rate during infusion at minimum increment of 0.1ml/h	
	The bolus accumulation volume and bolus rate shall be displayed	
	Drug library with up to 200 drug name, add or delete drugs available in user-defined drug list	
	Have up to 1500 history records	
	Have automatic bolus system, with bolus rate and preset volume adjustable	
	Remember last infusion configuration when power off	
	Delivery Accuracy: ±5%	
	Dynamic occlusion pressure displayed on screen;	
	Multifunction interface: RS232, DC-input, Nurse Call	
	Data transmission is available with multi-function interface	
ALARMS	Acoustic and visible alarm	
	3 levels alarm, low, medium, high	
	Alarm including: occlusion, battery empty, VTBI done, syringe empty, syringe disengaed, KVO finish, system error, reminder, battery low, No battery inserted, syringe near empty, standby time expired, etc.	
	3 Occlusion alarm level: 20kPa, 70kPa, 120kPa	
	4 Pressure unit selectable: mmHg, kPa, psi, bar	
	Air bubble alarm size: 50, 100, 250, 500, 800 µl	
	Alarm sound 1-8 levels adjustable	
	Yellow and red alarm light with different frequency according alarm level	
DISPLAY	Screen contrast 1-8 levels adjustable	
	Delivery rate, current infusion, VTBI, IV set brand, real-time pressure, battery capacity, drugs, alarms etc.	
POWER SUPPLY:	AC100-240V, 50/60HZ	
BATTERY	Battery type: Rechargeble Lithium battery	
	Battery operating time: more than 4 hours@25ml/h	
	Battery charging time: less than 6 hours for 100%	
SAFTY SPECIFICATION	Type of shock protection : Class I, Type CF, defibrillation-proof	
	Water-Proof Grade : IP34	
CERTIFICATION :	CE	
	ISO 13485	

10. Defibrillator:

21. Defibrillator (AED) Machine

Defibrillator (with Monitor)

S.N.	Purchaser's Specifications		Bidders Offer
	Defibrillator (with Monitor)		
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
1	**Description of Function**		
1.1	Defibrillator is required for reviving the heart functions by providing selected quantum of electrical shocks with facility for monitoring vital parameters.		
2	**Operational Requirements**		
2.1	Used in emergency & critical care departments to meets various resuscitation and monitoring needs.		
3	**System Configuration**		
3.1	Defibrillator must be Biphasic, light weight and latest model with complete accessories.		
4	**Technical Specifications**		
4.1	Must be compact 4 in one integrated design: Monitoring, Manual Defib, AED (automated external defibrillator) and Pacer capabilities.		
4.2	System should be user friendly, lightweight (less than 6 KG including battery and external paddles sets) and easily transportable.		
4.3	System should have at least 7" TFT colour LCD display (800*600).		
	1-2-3 steps guidance for fast and safety defibrillation.		
4.4	The defibrillation shock is delivered using biphasic waveform which delivers a lower range of energy shocks ranging from 1,2,3,4,5,6,7,8,9,10,15,20,30,50,70,100,150,170,200,300, 360 joules.		
4.5	Able to perform synchronized cardioversion AED and non-invasive pacing therapy.		
4.6	Rapid charging time, saving time for every rescue (200J<=3 sec)		
4.7	Must have ECG recovery time of less than 2.5 sec.		

S.N.	Purchaser's Specifications	Bidders Offer
4.8	Should have lithium ion battery with capacity of 200 shocks for 360 J or 4.5 hours of pacing or 6 hours of monitoring.	
4.9	Should provide 3/5 ECG monitoring with respiration and optional SpO2 and CO2.	
4.10	Should have ECG waveform viewing time of max. 16 sec.	
4.11	Should have IP level IP 44.	
4.12	Should have dual functions of energy level selection by front panel or by external paddles directly.	
4.13	Should have 180 mins of voice recording facility.	
4.14	Should have external pacing both on demand and fixed mode	
4.15	Should have function of freeze and review at least 120 seconds of ECG waveforms enabling clinicians to easily identify arrhythmias.	
4.16	Should have data storage of up to 100 patient profiles, including 1000 events per patient, 24 hours of ECG waveforms storage and 72 hours of tabular trends.	
4.17	Must have data management software to review, edit and print the data.	
4.18	Should have easy to output patient data through plug-and play USB disk.	
4.19	Should have colour coded buttons and highly visible patient data to simplify manual defibrillation. Should have visible alarms to keep track of patient conditions.	
4.20	Should have rotator knob or quick keys	
4.21	Should have lead selection button to give quick access to the optimal ECG waveforms.	
4.22	Must be used for paediatric and adult defibrillation with adult and paediatric paddles..	
4.23	Should have an electrode contact-quality indicator to minimize the risk of ineffective defibrillation.	
4.24	Should have 3-lead ECG monitoring capability.	
4.25	Operates on AC power supply and internal battery.	
4.26	Should have lithium ion battery back-up facility	
4.27	Should have integral 3 channel thermal printer with paper speed of 6.25mm/sec, 12.5mm/sec, 25mm/sec, 50mm/sec	
4.28	Must comply with AHA & ACLS requirements.	
4.29	Control Panel	

S.N.	Purchaser's Specifications	Bidders Offer
	• Control panel should have a high-resolution 800*480 pixels , at least 7" TFT colour LCD with bright back-light display. • 3 waveforms should be displayed. • Audio and visual alarms should be provided. • Audible indication should be available during AED mode. • Must be able to display ECG, HR indicator, battery status, shock indicator. • HR limit and shockable rhythms alarms should be provided.	
4.30	Energy dischargeable buttons should be provided on the main unit and as well as on external paddles.	
4.31	Must have inside discharge facility.	
5	**Accessories, spares and consumables**	
5.1	3 lead ECG cable x 1 set for ECG monitoring.	
5.2	Printer (built-in) x 1 set	
5.3	Power cord x 1 set	
5.4	Rechargeable Battery x 1 set	
5.5	External Paddles for Adult & Children x 1 set each	
5.6	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).	
6	**Operating Environment**	
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.	
6.2	Must work on 220-240V/ 50 Hz AC Single phase fitted with appropriate plugs and sockets. The mains cable minimum 3 meter long.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND	
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.	
7.3	Comply to AHA & ACLS requirements or equivalent	
7.4	Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements and IEC-60601-2-25 Safety of Electrocardiograms.	
8	**User Training**	
8.1	The Supplier shall conduct user training for this equipment to enable	

S.N.	Purchaser's Specifications	Bidders Offer
	operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.	
9	**Warranty**	
9.1	Comprehensive warranty for 1 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.	
12	**Documentation**	
12.1	User (Operating) Manual in English	
12.2	Service (Technical & Maintenance) manual in English	
12.3	List of important spare parts and accessories with their part numbers and costing	
12.4	Certificate of calibration and inspection from factory.	

11. Intubating Bronchoscope:

Non-optical fibre flexible video intubation system with 3 different size of scope

Technical Specification:-

Intubating Bronchoscope

- Easy to transport & Set up flexible video scope with monitor for Intubation and Bronchoscopy.
- It should be facilitate with video output should be supplied with monitor.
- Monitor should have video recording and capability to take still images and should have storage of minimum 8GB.
- Monitor should have at least 4 hours battery backup It can be mount on IV pole Maximum start up time should not be more than 10sec.
- Minimum length should be 600mm.
- It should be direct both the way 130 degree with thumb control lever with pediatric scope, 150 degree up and 130 degree down with Adult scope and 140 degree up and 110 degree down with large scope
- It should have ET Tube parking slot.
- Scope should have outer diameter of 3.6 -3.9 mm, working channel more than 1.0 mm for pediatric scope, outer diameter of 4.8 – 5.2 mm, working channel more than 2.0mm for adult scope, outer diameter of 5.6 – 5.9 mm, working channel of 2.7 mm for large scope.
- It should have additional working channel and can be used for oxygen flushing.
- It should be integrated with camera chip and LED light source.
- System should be supplied with 10 no's of sterile scopes.
- Should be USFDA & European CE approved confirming to international standards of safety.

12. Syringe Pump:

Specification of Syringe pump		
Configuration, performance and technical characteristics		Bidder's Offer
STRUCTURE:	Weight no more than 1.95 kg	
	Embedded handle for easy carrying	
	Front loading design, allow easy installation of the syringe	
	Extension line clamp	
	Large alarm light with visibility at long distance	
	LCD Display with high visibility	
CONSUMABLE	Ability to use syringes of any manufacturers	
	Supports for syringes size at 5, 10, 20, 30, 50/60 ml	
	Automatic recognition of syringe size	
GENERAL FEATURES	Operating Modes: Rate mode, Time mode, Body weight mode	
	Delivery rate 0.1-1500ml/h, minimum step 0.1 ml/h (depending on syringe size)	
	Preset Volume(VTBI): 0.1-9999ml, minimum step 0.1ml	
	KVO Rate: 0.1-5.0ml/h adjustable, step 0.1ml/h	
	Bolus Rate: Manual bolus: 0.1-1500ml/h (depending on syringe size) Automatic bolus: 0.1-1500ml/h (depending on syringe size)	
	Have automatic bolus function, with bolus rate and preset volume adjustable	
	Preset bolus volume: 0.1-9999ml	
	Purge Rate: 5ml syringe: 150ml/h; 10ml syringe: 300ml/h; 20ml syringe: 600ml/h; 30m/50ml/60ml syringe: 800ml/h	
	Self-test system	
	Anti-bolus function. Reduces significantly bolus after occlusion release	
	Fast-start function against,the friction force of syringes	
	Titration function: Available to change the delivery rate during infusion at minimum increment of 0.1ml/h	
	The bolus accumulation volume and bolus rate shall be displayed	
	Drug library with up to 200 drug name, add or delete drugs available in user-defined drug list	
	Have up to 1500 history records	
	History records data could be transmitted to PC	
	Remember last infusion configuration when power off	
	Delivery Accuracy: ±2%	
	Mechanical Accuracy: ±1%	
	Pressure limitation level displayed on screen;	
	Multifunction interface: RS232, DC-input, Nurse Call	
	Data transmission is available with multi-function interface	
ALARMS	Acoustic and visible alarm	
	3 levels alarm, low, medium, high	
	Alarm including: occlusion, battery empty, VTBI done, syringe empty, syringe disengaed, KVO finish, system error, reminder, battery low, No battery inserted, syringe near empty, standby time expired, etc.	
	3 Occlusion alarm level: Low 40kPa, Medium 70kPa, High 120kPa	
	4 Pressure unit selectable: mmHg, kPa, psi, bar	
	Alarm sound 1-8 levels adjustable	
	Yellow and red alarm light with different frequency according alarm level	
DISPLAY	Screen contrast 1-8 levels adjustable	
	Delivery rate, current infusion, VTBI, syringe size, syringe brand, real-time pressure, battery capacity, drug name, alarms etc.	
POWER	AC100-240V, 50/60HZ	
BATTERY	Battery type: Rechargeble Lithium battery	
	Battery operating time: more than 6 hours@5ml/h	
	Battery charging time: less than 5 hours for 100% charging	
SAFTY SPECIFICATION	Type of shock protection : Class I, Type CF, defibrillation-proof	
	Water-Proof Grade : IP34	
CERTIFICATION:	CE	
	ISO 13485	

13. Oxygen Cylinder (Large Size):

As per standard.

14. PPE (Tyvek):

As per standard. PPE of Tyvek type.

15. N95 Mask:

As per standard.

16. Overhead Panal:

The overhead panal used for patients with following accessories:
Power Socket
Peri light
Space for monitor
Oxygen & Suction Port

17. Autoclave 50 Ltrs (Electric):

Technical Specification Autoclave (50L)

S.N.	Purchaser's Specifications	Bidder's Offer	Deviation if any	Page no. of catalogue/ datasheet/ manual
	Autoclave			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Autoclaves are required for sterilizing an object in high temperature and high pressure steam.			
2	**Operational Requirements**			
2.1	Vertical autoclave, universal basic version for microbiological standard laboratory to sterilize liquids, instruments, glassware, plastic articles or general infectious waste.			
3	**System Configuration**			
3.1	Autoclave with complete accessories			
4	**Technical Specifications**			
4.1	Triple walled construction; chamber, door, doorframe, bolts made of corrosion-resistant material and able to prevent stress cracking.			
4.2	Compact, portable easily moveable on non-rusting, non-marking castors from one place to another place. The wheels/castors shall have brakes.			
4.3	Sterilizing For water, culture media, reagents and other fluids. After completion and cooling to a selected temp., air is expelled automatically through the exhaust valve. Sterilizing temp.: 115°C to 135°C Timer: 1 to 300 min. Exhaust temp.: 0°C to 45°C			
4.4	Instrument Sterilizing For flasks, beakers, test tubes, other lab instruments. When completed, the exhaust valve opens and the temp. drops to 100°C. Thus, cool down period can be shortened. Suitable for equipment that can withstand sharp drops in pressure and for sterilizing waste. Sterilizing temp.: 115°C to 135°C Timer: 1 to 300 min.			
4.5	Sterilizing/Keep Warm After sterilizing culture media, reagents and other liquids, and cooling down naturally to a selected temp., air is expelled automatically from the exhaust			

S.N.	Purchaser's Specifications	Bidder's Offer	Deviation if any	Page no. of catalogue/ datasheet/ manual
	valve. High temp. prevents solidifying. Sterilizing temp.: 115°C to 135°C Timer: 1 to 300 min. Exhaust temp.: 0°C to 45°C Incubation temp.: 45°C to 60°C			
4.6	Melting/Keep Warm To melt or keep culture media at a fixed temp. (This function is not for sterilizing but prevents solidifying). Melting temp.: 60°C to 114°C Timer: 0 to 300 min., 72 hrs. Incubation temp.: 45°C to 60°C			
4.7	Chamber volume: ≥50 litres.			
4.8	Exhaust tank: 2-liter polyethylene tank			
4.9	Chamber material: SUS304 (Austenitic stainless steel)			
4.10	Keep warm timer: 72 Hrs. Fixed			
4.11	Program Timer: 1 week (Designation: Year, month, day, hour and minute)			
4.12	Fast safety lid lock.			
4.13	Lid lock by a circumferential, durably heat- and pressure-resistant seal.			
4.14	Control lock-out switch that prevents starting a cycle if the door is not locked safely.			
4.15	Control that prevents opening the door until chamber is depressurized.			
4.16	Temperature-dependent door-locking system according to international standard.			
4.17	Maximum operating pressure: 0.240MP bar. Maximum operating temperature: 135 ^{0}C			
4.18	Sterilisation timer: 1–300 minutes.			
4.19	Instrument sterilization timer: up to 72 hours.			
4.20	Melting timer: 1–300 minutes.			
4.21	Exhaust valve open temperature setting			
4.22	Microcomputer control system.			
4.23	The control panel to be mounted so that the components sensitive to steam and heat are protected.			
4.24	display showing: • temperature • steam pressure • sterilization time • stage of cycle • alarm information			
4.25	Lid interlock.			
4.26	Alarm: audible, with display on dysfunction.			
4.27	All information on alarm to be in full writing and not based on a code.			
4.28	Safety devices: Pressure safety valve, over-temperature limiter, anti-scorch limiter, door interlock, over-pressure limiter, current fuse			
4.29	Pressure vessel type: Small-scale pressure vessel			

S.N.	Purchaser's Specifications	Bidder's Offer	Deviation if any	Page no. of catalogue/ datasheet/ manual
4.30	A manual control that can run a complete cycle manually in case of system failure.			
5	**Accessories, spares and consumables**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered must be designed to store and be operated normally under the condition of the purchaser's Country. The conditions include Power supply, Climate, temperature and relative humidity.			
6.2	Power supply: 220-240V/ 50 Hz AC Single phase or 380-400V AC 50 Hz Three phase fitted with appropriate plugs to meet purchaser's country requirements. The power cable must be minimum 3 metres long..			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 and CE			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 1 years.			
10	**Maintenance Service during Warranty Period**			
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12	**Documentation**			
12.1	User (Operating) manual in English			
12.2	Service (Technical / Maintenance) manual in English			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Certificate of calibration and inspection from factory.			

18. Micro Centrifuge:

Technical Specification of Micro Centrifuge

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Micro Centrifuge	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Micro centrifuge is a piece of equipment, generally driven by a motor that puts an object in rotation around a fixed axis, applying force perpendicular to the axis. The centrifuge works using the sedimentation principle. Where the centripetal acceleration is used to separate substances of greater and less density.			
2	**Operational Requirements**			
2.1	Lightweight and Compact in size.			
3	**System Configuration**			
3.1	Micro centrifuge with digital display. The centrifuge body is made of high quality steel, stainless steel chamber, safe and reliable.			
4	**Technical Specifications**			
4.1	Must have Max Speed 16,000 RPM			
4.2	RCF 17940 x g			
4.3	Must be maintenance free brushless motor.			
4.4	Must have Acc / Dec of at least 10 types.			
4.5	LCD display for RCF, Time and Speed.			
4.6	Micro controller based program			
4.7	Hold at least 12 tubes of 1.5 / 2.0 ml.			
4.8	Timer up to 0 ~ 99min 59sec			
4.9	Electric lid lock, super speed, imbalance protection.			
5.0	Noise level shall be less than 55dB			
5	**Accessories, spares and consumables**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.			
6	**Operating Environment**			
6.1	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			

6.2	Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/ AC:2007 **AND**			
7.2	CE approved product certificate.			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 1 years after acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			
11.1	Supplier must accomplish proper commissioning of the equipment on site.			
12	**Documentation**			
12.1	User (Operation) manual in English			
12.2	Service (Technical / Maintenance) manual in English			
12.3	List of important spare parts and accessories with their part numbers and costing.			
12.4	Certificate of calibration and inspection from factory.			

19. Micro Pipette Single & Multi Channel (All Size):

Technical Specifications of Micropipette Single and multi channel

S. No.	Specification		Required Quantity	Bidder's Offer
	Manufacturer:			
	Country of Origin:			
	Model:			
	Brand:			
1	**Description of Function**			
	Laboratory Micro pipette to use for lab sampling preparation.			
2	**Operational Requirements**			
	Different size autoclavable micropipette			
3	**System Configuration**			
	Single channel micropipette 8 channel micropette			
4	Technical Specification			
4.1	**Single Channel Micro Pipette** • **Fully autoclavable** • **Ergonomic design provides excellent operating experience** • **Easy-to-read volume display** • **Easy calibration and maintenance** • **provides excellent operating experience** • **Large display window allows for easy volume identification** • **Easy calibration and maintenance**			
4.1.1	**Micropipette**	• **Single Channel** • **Capacity:** 0.1-2.5 µl • **Increment:** 0.5µl • **Inaccuracy%: At** 2.5 µl : 2.50, At 1.25 µl : 3.00, At 0.25 µl : 12 • Variable volumes, • fully autoclavable,	5	
4.1.2	**Micropipette**	• **Single Channel** • **Capacity:** 0.5-10 µl • **Increment:** 0.01µl • **Inaccuracy%: At** 10 µl : 1.00, At 5 µl : 1.50, At 1µl : 2.50 • Variable volumes, • fully autoclavable,	5	
4.1.3	**Micropipette**	• **Single Channel** • **Capacity:** 2-20 µl • **Increment:** 0.5µl • **Inaccuracy%:** At 20µl-0.90, At 10 µl-1.20, At 2 µl- 3.00 • Variable volumes,	5	

		• fully autoclavable,		
4.1.4	Micropipette	• **Single Channel** • **Capacity:** 10-100 µl • **Increment:** 0.1µl • **Inaccuracy:** At 100 µl ±0.80, At 50 µl ±0.50, At 10 µl ±0.30 • Variable volumes, • fully autoclavable,	5	
4.1.5	Micropipette	• **Single Channel** • **Capacity:** 20-200 µl • **Increment:** 0.1µl • **Inaccuracy%:** At 200 µl- 0.60, At 100 µl- 0.80, At 20 µl-3.00 • Variable volumes, • fully autoclavable,	5	
4.1.6	Micropipette	• **Single Channel** • **Capacity:** 100-1000 µl • **Increment:** 5.0µl • **Inaccuracy%:** At 1000 µl- 0.60, At 500 µl- 0.70, At 100 µl- 2.00 • Variable volumes, • fully autoclavable,	5	
4.2	**8 Channel Pipette** • **for 96 well plates** • **Dispensing head rotates for effortless** • **pipetting convenience** • **Individual piston and tip cone assemblies** • **allowing easy repair and maintenance** • **Compound material-made tip cone secures high sealing performance** • **Compatible with most universal tip brands**			
4.2.1	Micropipette	• **Multi Channel (8 channel)** • **Capacity:** 0.5-10 µl • **Increment:** 0.1µl • **Inaccuracy%:** At 10 µl- 1.50, At 5 µl- 2.50, At 1 µl- 4.00 • Variable volumes, • fully autoclavable,	3	
4.2.2	Micropipette	• **Multi Channel (8 channel)** • **Capacity:** 5-50 µl • **Increment:** 0.5µl • **Inaccuracy%:** At 50 µl- 1.00, At 25 µl- 1.50, At 5 µl- 3.00 • Variable volumes, • fully autoclavable,	3	
4.2.3	Micropipette	• **Multi Channel**	3	

		• **Capacity: 50**-300 µl • **Channel:** 8 • **Increment:** 0.5 µl • **Inaccuracy:** At 300 µl ±2.10, At 150 µl ±1.5, At 50 µl ±0.75 • Variable volumes, • fully autoclavable,		
5	**Accessories, spares and consumables**			
5.1	All standard accessories to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered must be designed to store and be operated normally under the condition of the purchaser's Country. The conditions include Power supply, Climate, temperature and relative humidity.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO and CE certificates			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 1 years.			
10	**Maintenance Service during Warranty Period**			
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12	**Documentation**			
12.1	User (Operating) manual in English			
12.2	Service (Technical / Maintenance) manual in English			
12.3	Certificate of calibration and inspection from factory.			

अनूसूचि "क"

KARNALI ACADEMY OF HEALTH SCIENCES

Teaching Hospital, Jumla

PROCUREMENT OF MATERIALS/EQUIPMENTS **F/Y 076/077**

S.N	Name Of Items	Unit	Quantity	Unit Price	Unit Price in Words	Total Amount
1	Real Time PCR Machine	Set	1			
2	PCR Reagent Kit (Corona Testing)	Kit Set	1			
3	Video Laryngoscope	Set	1			
4	Ventilator (Adjustable)	Set	1			
5	Monitor - 7 Para	Set	1			
6	Monitor- 5 Para	Set	1			
7	Suction Machine	Pcs	1			
8	USG Machine (3 Port) with Eco	Set	1			
9	Infusion Pump	PCs	1			
10	Defibrillator	Pcs	1			
11	Intubating Bronchoscope	Pcs	1			
12	Syringe Pump	Pcs	1			
13	Oxygen Cylinder (Large Size)	Pcs	1			
14	PPE (Tyvek)	Pcs	1			
15	N 95 Mask	Pcs	1			
16	Overhead Panel	Set	1			
17	Autoclave 50 Ltrs (Electric)	Pcs	1			

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S.N	Name Of Items	Unit	Quantity	Unit Price	Unit Price in Words	Total Amount
18	Micro Centrifuge	Pcs	1			
19	Micro Pipette Single & Multi Channel (All Size)	Set Each	1			
Total Amount Without VAT						
VAT@13%						
Total Amount With VAT						

Name of Firm :

Name of Propritor :

Firm Seal :

Signature :

Date :

(नोट : उपरोक्त सामग्रीहरुको प्रतिस्पर्धा प्रत्येक सामग्रीहरुको छुटा छुटै हुने भएको हुदा प्रस्तावदाताले एक वा एक भन्दा वढी सामग्रीहरुमा विड गर्न सक्नेछन् ।)