प्रदेश सरकार
प्रदेश नं. २
सामाजिक विकास मन्त्रालय
स्वास्थ्य निर्देशनालय

कलैया अस्पताल

कलैया, बारा
प्रदेश नं. २
सामाजिक विकास मन्त्रालय
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कलैया अस्पताल
कलैया, बारा

पत्र सं. ०७६।०७७
चलानी:- ९६५६

मिती:- २०७७।०१।०१

कलैया अस्पताल बाराको COVID-19 को व्यवस्थापन सामाग्री आपुर्ति सम्बन्धि अत्यन्त जरुरी सूचना

COVID-19 को व्यवस्थापनको लागि अतिआवश्यक सामानहरु सार्वजनिक खरिद ऐन , २०६३ को दफा ६६ र सार्वजनिक खरिद नियमवली २०६४ को नियम १४५ को विशेष परिस्थितिमा खरिद गर्ने व्यवस्था सम्बन्धि प्रावधान बमोजिम तत्काल खरिद गर्नुपर्ने भएकोले सक्षम आपुर्तिकर्ताले तपसिल बमोजिमका आवश्यक सामाग्रीहरुको विवरणको प्रस्ताव यस कार्यालयबाट प्राप्त गरी वा सामाजिक विकाश मंत्रालय प्रदेश नं.२जनकपुरधाम, धनुषाको वेबसाईट www.mosd.p2.gov.np बाट डाउनलोड गरी मिती २०७७ । ०१। ०४ गते दिनको १:०० बजे भित्र यस अस्पतालको प्रशासन फाँट वा यस अस्पतालको ईमेल ठेगाना kalaiyahospital18@gmail.com मा प्रति इकाई के कति दर रेटले उपलब्ध गराउन सकिन्छ, सो को वर्तमान बजार मूल्य खुलाई पेश गर्न सम्बन्धित सरोकारहरुलाई यो सुचना प्रकाशित गरिएको छ ।

तपसिल

सि.नं.	विवरण	इकाई	प्रति इकाई दर रेट (रु.)	कैफियत
1	ICU Bed	थान		
2	Ventilator	थान		
3	Patient Monitor	थान		
4	ABG Machine	थान		
5	Fibreoptic Bronchoscope	थान		
6	BIPAP	थान		
7	CPAP	थान		
8	X-Ray Portable	थान		
9	Defibrillator	थान		
10	Autoclave	थान		
11	Oxygen Concentrator	थान		

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डा. विरेन्द्र कुमार मण्डल
वरिष्ठ मेडिकल सुपरिटेन्डेन्ट

Technical specification of ICU Bed Electric

Sn.no.	Purchaser's Specifications	Bidder's offer	Pg.no in catalogue
	ICU Bed Electric		
	Manufacturer		
	Brand		
	Type /Model		
	Country Of Origin		
	Description of Function		
	ICU Beds are required in the Intensive Care for comfort & safety of the patient.		
1	**Technical Specification**		
1.1	Base and mainframe work should be of precise mild steel tubes.		
1.2	Base should be mounted on 125mm dia. Swivel castors, with two brakes.		
1.3	Top of CRCA sheet should be perforated uniformly		
1.4	Overall Size: 2120 L x 950 W x 550 to 750 H mm		
1.5	Should be suitable for mattress size: 1980 L x 900 W mm		
1.6	Backrest, Knee rest, Trendelenburg/ Rev. Trendelenburg & Hi-Low should be Electrically Operated with Remote		
1.7	ABS Moulded Head and Foot Boards with locking		
1.8	Four Pieces individual side rails ABS Moulded		
1.9	Should have provision for SS telescopic IV Rod at four locations		
1.10	Should have provision for holder for Urine Bag		
1.11	Should be finished in epoxy powder coating.		
2	**Operating Environment**		
2.1	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.		
2.2	Power supply should be AC 100 V -240 V, 50/60Hz		
3	**Standards & Safety Requirements**		
3.1	Must submit ISO13485:2003/AC:2007 **AND**		
3.2	Must submit CE or USFDA approved product certificate		
4	**User Training**		
4.1	Not Applicable		
5	**Warranty**		
5.1	Comprehensive warranty for 1 years after		

	acceptance.		
10	**Documentation**		
10.1	User (Operating) manual in English.		

Note :

Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/allcomplies shouldnot 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.

SignBy
Er. AshnaKhadka
Bio Medical Engineer Province 2
ProvinceHealthLogistics Management Center
Province 2
Janakpurdham, Dhanusha
NEC No: 293

Technical specifications ICU Ventilator.

S. N.	Purchaser's Specifications	Bidder's Offer	Pg.no in catalogue
	ICU Ventilator		
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Description of Functions**		
1.1	A dedicated adult, pediatric & neonate ventilator for use in ICU with Adaptive Ventilation Mode.		
2	**Operational Requirements**		
2.1	It shall operate from the mains supply with central oxygen supply and oxygen cylinder (0-7bar).		
3	**System Configurations**		
3.1	Ventilator unit, 1 unit.		
3.2	Trolley, 1unit.		
3.3	Servo Controlled Humidifier, 1unit		
3.4	Accessories, 1set.		
4	**Technical Specifications**		
4.1	It should be an electronically controlled turbine based ventilator or with air compressor.		
4.2	The ventilator should have adaptive ventilation mode for faster weaning and adaption to the patient. AVM adapts to the patient's needs from each breath to the next, regardless of whether the patient is being ventilated or is breathing spontaneously by himself.		
4.3	The weight of the system should be máximum 15kg without trolley.		
4.4	**Ventilation mode:** • Adaptive ventilation Mode (AVM) • Volume Control Ventilation • Pressure Control ventilation • A/C, SIMV, CPAP, PSV, SPONT, PLV, NIPPV, nCPAP • NIV and Tube mode shall be available. • Backup Ventilation Mode: PSV, brustbackup • Apnea Ventilation mode • Target Ventilation : PSV, P-A/C, PC-SIMV • APRV, bclevel • Automatic tube and leakage compensation • Dualvent, Day Night, HFOT		
4.5	At least 13" Full Color Touch screen TFT display with full HD resolution 1920* 1080.		
4.6	Battery back-up time: at least 4 hours		
4.7	Tidal volume: 2-2500ml		
4.8	I:E Ratio :1 :299 ; 299 :1 (biphasic) ; 1 :59 ; 5 :1 other modes		
4.9	Frequency :0-150bpm		
4.10	Peak Inspiratory flow : 0-260l/min		

S. N.	Purchaser's Specifications	Bidder's Offer	Pg.no in catalogue
4.11	Triggering mechanism: flow triggering & pressure triggering.		
4.12	Inspiration time: 0.1-10s		
4.13	Inspiratorypressure, IPAP:0 - 100mBar		
4.14	Oxygen concentration (FiO2): 21-100 volume %		
4.15	$P_{support}$: 0-80mbar		
4.16	PEEP/ intermittent PEEP: 0-50mBar		
4.17	InspiratoryTriggering sensitivity: Flow triggering: 0.1-20/min Pressure triggering:0.1-15mbar		
4.18	ExpiratoryTrigger: auto synchronization, 5-90 % manual		
4.19	Leakage Compensation: automatic inspiratory/expiratory leak compensation upto 180l/min		
4.20	Rise Time: automatic, 0-2000ms manual		
4.21	Curves: Pressure, Flow, Volume, ATC		
4.22	Nebuliser: Integrated nebuliser, pneumatic		
	Medical Air Compressor(In case of turbine based no need of below mentioned points and air compressor): • Imported Medical Air compressor • Snap fit with the Ventilator module to provide an oil free Medical air . • Peak output flow must be minimum 160 LPM. • Air quality must comply with ISO compressed air purity class. • Medical Air Compressor must automatically activate in the event of wall air supply loss. • Replacement of internal filters must be performed without removing the compressor Must have washable air filter.		
4.23	**Monitoring and Alarms:** • Pressure- Peak, Plateau, Mean, CPAP/PEEP • Tidal Volume - Set (Inspired) , Monitored (expired) • Minute Volume - expired, spontaneous, leakage • Frequency/ Rate - Set (Inspiratory), Spontaneous, Total , I:E Ratio • Lung Mechanics - Resistance, Compliance, Negative Inspiration Force • Occlusion pressure and Intrinsic (Auto) PEEP • Apnea alarm time approximately 15 - 60 sec • Must provide data of56 Online parameters and at least 14 day real time trending		
4.24	Loops: Pressure Volume, Pressure Flow, Flow Volume,		
4.25	Maneuvers: Lung Recruitment tool, Manual Breath, configurable sigh, Inspiratory Hold, Expiratory Hold, Negative Inspiratory Force (NIF), AutoPEEP		
4.26	Interfaces: 2*RS232, Ethernet, VGA, 2*USB, Nurse call,Co2, SpO2, BUS, Display Port		

. N.	Purchaser's Specifications	Bidder's Offer	Pg.no in catalogue
4.27	Connection protocols: Vue link, HL7, Intellibridge		
4.28	**Upgradable Options:** • Volumetric Mainstream Capnography • SpO2 Plethysmography • Esophageal Pressure Measurement (Q4/2017)		
5	**Accessories, SpareParts and Consumables**		
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Forms.		
5.2	Silicone Autoclavable breathing circuit for adult, pediatric & neonate- 1 sets each		
5.3	Silicone test lung adult & neonate -1 set		
5.4	Must have humidifier and its accessories		
5.5	Disposable NIV Mask- 1 kit (3 different sizes)		
5.6	Flow sensor- 10 pcs extra		
5.7	O2 sensor – 1 extra		
5.8	Expiratory valve-1 extra		
6	**OperatingEnvironment**		
6.1	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length. Low voltage input 24VDC/3.5A		
7	**Standards & Safety Requirements**		
7.1	Must submit ISO 13485 for Medical Devices AND CE (93/42 EEC Directives) AND USFDA approved product certificate.		
7.2	Certified to be compliant with ANS/IEC60601.2.12-01 Medical Electrical Equipment –Part 2-12: Particular Requirements for the Safety of Lung Ventilators—Critical Care Ventilators.		
8	**User Training**		
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly.		
9	**Warranty**		
9.1	The warranty period for this item shall be 2years after acceptance of the Goods. 5 year warranty should be provided for turbine blower incase of turbine based.		
10	**Maintenance Service DuringWarrantyPeriod**		
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		

S. N.	Purchaser's Specifications	Bidder's Offer	Pg.no in catalogue
	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.		

Note :

Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/allcomplies shouldnot 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.

Sign By
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Bio Medical Engineer – Province 2
Province Health Logistics Management Center
Province 2
Janakpurdham, Dhanusha
NEC No: 293

Technical Specification of Oxygen Concentrator

S.N.	Hospital Specification	Bidder's Offer	pg.no in catalogue
	Oxygen Concentrator		
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Description of Function**		
1.1	Oxygen Concentrator for supply of Oxygen Regularly to the patient		
2	**Operational Requirements**		
2.1	Oxygen concentrator with accessories		
3	**System Configuration**		
3.1	Oxygen concentrator with accessories		
4	**Technical Specifications**		
4.1	The Oxygen Concentrator should be mobile, light weight, Mains operated unit capable of supplying continuous oxygen from atmospheric air with a built-in purity measurement and Nebulizer.		
4.2	Single flow splitter for Oxygen delivery		
4.3	Should have LCD screen to view the usage hours and timer.		
4.4	Adjustable Flow rate ranging 0.5 to 5 L/ min		
4.5	Oxygen Purity more than 93% ± 3%		
4.6	Delivery pressure 20 to 50 KPA		
4.7	Should have superior grade sieve		
4.8	Should have facility for nebulization with tube and mask		
4.9	Should have filters at different stages		
4.10	Alarm for Low Oxygen Concentration, Power Failure, Compressor Failure, Pressure Cycle Failure etc		
4.11	Filters for dust and bacteria		
4.12	Low noise system < 55 dB		
4.13	Should have timer function to set the timer ranging 0 to 99 minutes for auto shut down		
4.14	Delivery system for a single patients		
5.0	**System Configuration Accessories, Spares and Consumables.**		
5.1	To be Supplied with the following standard accessories/disposables		
	Nasal Oxygen Cannula---2 Nos.		
	Power cable---1 no.		
	User manual –1 no.		

5.2	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.		
6	**Operating Environment**		
6.1	The system offered must be designed to operate normally under the condition of the purchaser's country. The conditions include power supply, climate, temperature, and humidity, etc.		
7	**Standards and Safety Requirements**		
7.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 AND		
7.2	CE or USFDA approved product certificate		
8	**User Training**		
8.1	Should provide user training		
9	**Warranty**		
9.1	Comprehensive warranty for 1 year after acceptance.		
10	**Maintenance Service During Warranty Period**		
10.1	Standard warranty conditions are applicable.		
11	**Installation Inspection and Commissioning**		
10.1	Must supply preassembled unit, ready to use.		
12	**Documentation**		
12.1	User/Instructions manual shall be provided in English.		
12.2	Original catalogue must be submitted		

Note :

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Er. AshnaKhadka

Bio Medical Engineer – Province 2

Province Health Logistics Management Center

Province 2

Janakpurdham, Dhanusha

NEC No: 293

Autoclave

Sn.No	Purchaser's Specification	Bidder's Offer	pg.no in catalogue
	Autoclave-approximately -80L or more		
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
1	**Description of Function**		
1.1	Autoclaves are required to sterilize objects under high temperature and pressured steam.		
2	**Operational Requirements**		
2.1	Suitable for hospital dressings, surgical instruments, glassware, culture media and laboratory wares etc.		
2.2	Shall be used with distilled water.		
3	**System Configuration**		
3.1	Autoclave approximately 80L, stand alone		
4	**Technical Specifications**		
4.1	Single door high pressure steam sterilizer with double walled,		
4.2	**Material of construction:**		
	Sterilizer chamber SS 316		
	Jacket Stainless Steel		
	Loading carriage SS 316		
	Door Gasket: Silicon or better		
	Insulation: Air Insulation		
	Insulation cover: SS sheets		
4.3	Operating temperature 121 ^{0}C – 134^{0}C pressure 1.1 to 2.2 kg/cm2 of steam pressure, and shall be used with distilled water.		
4.4	Capacity- approximately 80 litre or more		
4.5	Easy to read pressure gauges.		
4.6	Automatic Electric Solenoid Valve for chamber drain		
4.7	Safety lock for door: Radial Locking		
4.8	Low water off.		
4.9	4 kw, water Immersion Type Heater		
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 product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include 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 ISO 9001 or ISO 13485AND		
7.2	CE or USFDA 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 year 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	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		

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Sign By

Er. AshnaKhadka

Bio Medical Engineer – Province 2

Province Health Logistics Management Center

Province 2

Janakpurdham, Dhanusha

NEC No: 293

Technical Specification of Defibrillator Machine

S.N	Purchaser's Specifications	Bidder's Offer	pg.no in catalogue.
	Defibrillator Machine		
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Description of Function**		
1.1	Defibrillator Machine are lifesaving devices that apply an electric shock to establish a more normal cardiac rhythm in patients who are experiencing ventricular fibrillation (VF) or another shockable rhythm.		
2	**Operational Requirements**		
2.1	The defibrillator must be user friendly, safe to use with battery backup		
3	**System Configuration**		
3.1	Defibrillator Machine should deliver an electric shock to patients who are experiencing ventricular fibrillation (VF) or another shockable rhythm.		
4	**Technical Specifications**		
4.1	Should use Biphasic waveform for shock delivery to ensure that the current is optimal and damage to heart tissues is minimal		
4.2	Should have LCD display of at least 5 inch		
4.3	Should have energy selection from 2 – 300 Joule		
4.4	Inbuilt battery should be available with capacity to delivered 100 charges/discharges of 300 J with full charged condition		
4.5	Should have scaled lead acid battery		
4.6	The charging time to 300 Joule should be as low as 10 second or better		
4.7	Should be able to synchronize to R wave		
4.8	Should have at least 24 event recording		
4.9	Should have both audio visual alarm		
4.10	Should have a facility to monitor ECG via both Paddle and ECG cable		
4.11	Should have Marker indication on ECG wave		
4.12	Should be supplied with adult and swipe to expose paediatric paddles		
4.13	Should have inbuilt thermal printer		
4.14	Should be capable to print both real time and configurable delayed ECG waveform		
4.15	Should have facility of print annotation TIME, DATE, Heart rate, HR Limits, Event marker, ECG parameter, Defibrillation mode, Selected and Delivered energy, Patient Impedance and Hospital Info		
4.16	Should have input protection against High voltage		
4.17	Should have Electro Surgical unit filter		
5	**Accessories:**		
5.1	Defibrillator machine with complete accessories • 3 Lead Patient Cable – 1 No • Power Cable – 1 No • ECG Gel – 1No Recording Paper – 1 Roll		

	• Disposable ECG electrode – 1 Packet		
6	**Operating Environment**		
6.1	The system offered shall be designed to be stored and to operate normally under the conditions the purchaser's country. The condition include Power Supply, Climate, Temperature Humidity, etc		
6.2	Power supply: 220 – 240 VAC 50Hz fitted with appropriateplug.		
	The power cable must be at least 3 metre length		
7	**Standard & Safety Requirements.**		
	ISO 13485 Approved Certificate		
	CE or USFDA approved product certificate		
8	**Warranty**		
	Warranty for 1 year after acceptance		
9	**Maintenance Service During Warranty Period**		
9.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance whenever required.		
10	**Installation and Commissioning**		
10.1	The bidder must arrange for the equipment to be installed andby certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail		
11	**Documentation**		
	User (Operating) manual in English.		
	Service (Technical / Maintenance) manual in English		

Note :

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Sign By

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Bio Medical Engineer – Province 2

Province Health Logistics Management Center

Province 2

Janakpurdham, Dhanusha

NEC No: 293

Technical specifications for Portable X-ray Machine, 100mA

S.N.	Purchaser's specification	Bidder's offer	Remarks
	Portable X-ray Machine, 100mA		
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Description of Function**		
1.1	Portable X-ray unit for undertaking X-ray studies at the point of care (Operation Theatre, Casualty, Wards) when it is not safe or practically it is difficult to transfer the patient to the x-ray department.		
2	**Operational requirements**		
2.1	Should be Compact, Light and easily transportable mobile radiographic unit suitable for bedside x-ray for ward patients, intensive care units and opertation thearters		
3	**System Configurations**		
3.1	Portable X-ray machine, 100mA with complete accessories.		
4	**Technical Specifications**		
4.1	**Power Line Connection**		
4.2	The unit should operate on single-phase power supply with 230 Volts AC, ± 10% Line Regulation, Single Phase, 50 Hz with Line Resistance of 0.4 Ohms as per IS 7620 (I). (Power Lines having Higher Line Resistance may limit the output of X-Ray Generator)		
4.2	**X-ray Generator:** • It should have a digital display of mAS and kV and an electronic timer. • KV range : 45kV to 100 kV or more • mAS range : 0.1 mAs - 100 mAs or more • . Exposure time range : 0.04 - 8.00 sec. in 24 steps • OUTPUT POWER:8 KW		

S.N.	Purchaser's specification	Bidder's offer	Remarks
4.3	**X-Ray Tube:** • Self Contained Tube Head containing Stationary Anode X-Ray Tube. Focal Spot 2.8 mm. • Compact Heavy Duty Full Wave Rectified H.V. Transformer • High Voltage Silicon Rectifiers immersed in oil and hermitically sealed • Tube head can be tilted 360o with full flexibility for use in O.T's and in wards for bedside radiography		
	Collimator: • Manually adjustable collimator, rotatable +90°		
	CONTROL PANEL		
	Attractively designed control panel having the following functions:		
	• Digital display of mAs, KVP and Radiographic mA.		
	• Voltmeter to indicate line voltage.		
	mA meter to indicate tube current.		
	Voltage compensator Coarse and Fine to compensate input voltage variation		
	Booster transformer for stabilization of filament voltage.		
	Tech.selector for selection of Rad mA.		
	KVP selector from 45 to 100 KVP.		
	Time Selector switch for selection of Rad. Time.		
4.4	**Mobile Stand** Mobile Counter balanced Tube Stand. • The Tube Head can be moved UP & Down. • The system should be light weight less than 200 Kg and should have tilt step facility to overcome small obstacles and easy access to lifts • Tube Arm can be Articulated in a		

S.N.	Purchaser's specification	Bidder's offer	Remarks
	way to position it with lot of flexibility. Tube Head can be Rotated easily for taking Bedside Exposures & Chest X-Rays on the Chest Stand. • Manual locks are Provided for all Rotations/ movements of the Tube Head. • • Lead Lined Cassette Storage Box is integrated into the Tube Stand. • Foot Operated Lock to Lock the Stand. Handle for easy Grip to move the Stand. •		
4.8	**OVERLOAD PROTECTION & SAFETY FEATURES** • A Miniature circuit breaker should be provided. • Overload, X-Ray & Line indicators should be provided • Electronic overload protection with simultaneous protection from high input voltage/KVP/mA/Time should be provided		
5	**Accessories, spares and consumables**		
5.2	Manual Light Beam Collimator		
5.3	Dual action Hand Switch with retractable cord.		
5.4	Aluminum filter.		
5.5	Viewing Box		
5.6	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.		

S.N.	Purchaser's specification	Bidder's offer	Remarks
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: 220 - 240 VAC, 50Hz fitted with 5m automatic retractable power cable for easy connection to any wall outlet with protective ground conductor.		
7	**Standards & Safety Requirements**		
7.1	Must submit ISO13485:2003/AC:2007 or ISO 9001:2008 for Medical Devices **AND**		
7.2	The quoted Equipment must have valid BIS /FDA/ AERB certificates For Radiation safety.		
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 year after acceptance.		
10	**Maintenance Service During Warranty Period**		
10.1	During the warranty period supplier must ensure preventive maintenance and 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.		

S.N.	Purchaser's specification	Bidder's offer	Remarks
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.		

Note: Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the original 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.

Sign By

Er. AshnaKhadka

Bio Medical Engineer – Province 2

Province Health Logistics Management Center

Province 2

Janakpurdham, Dhanusha

NEC No: 293

Technical specification of Bipap Machine

Sn.no.	Purchaser's Specifications	Bidder's offer	Pg.no in catalogue
	Bipap Machine		
	Manufacturer		
	Brand		
	Type /Model		
	Country Of Origin		
1	**Technical Specification**		
1.1	Should Come with CPAP, S, AUTO S, S/T, T, & AUTO S/T therapy modes with auto ramp function		
1.2	Should Come with high resolution 5 inch colour touch screen display		
1.3	Should be Equipped with an inbuilt humidifier along with pre-heating function		
1.4	Should Come with energy-saving mode and auto therapy on/oIT functions		
1.5	Has high-resolution SD card data storage		
1.6	Should come with auto altitude adjustment and auto humidity adjustment		
1.7	Setting Range 4 - 25cmH2O		
1.8	Max Single Fault Steady Pressure 40cm H2O		
1.9	PS (Pressure support) 0-10 cmH2O		
1.10	Respiratory Rate 0-50 bpm		
1.11	Rise Time Min 150 – 900ms		
1.12	Flow >120L/min		
1.13	Water Capacity of humidifier should be 290ml (MAX Water Level)		
2	**Operating Environment**		
2.1	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.		
2.2	100 – 240V, 50/60Hz		
3	**Standards & Safety Requirements**		
3.1	Must submit ISO13485:2003/AC:2007 **AND**		
4	**User Training**		
4.1	Must provide user training (including how to use and maintain the equipment).		
5	**Warranty**		
5.1	Comprehensive warranty for 1 years after acceptance.		
6	**Maintenance Service During Warranty**		

	Period		
6.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance whenever required.		
7	**Installation and Commissioning**		
7.1	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.		
8	**Documentation**		
8.1	User (Operating) manual in English.		
8.2	Service (Technical / Maintenance) manual in English.		

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Bio Medical Engineer – Province 2

Province Health Logistics Management Center

Province 2

Janakpurdham, Dhanusha

NEC No: 293

Technical specification of CPAP Machine

Sn.no.	Purchaser's Specifications	Bidder's offer	Pg.no in catalogue
	CPAP Machine		
	Manufacturer		
	Brand		
	Type /Model		
	Country Of Origin		
1	**Technical Specification**		
1.1	Should Come with CPAP and APAP therapy modes with auto ramp function		
1.2	Should be Equipped with an inbuilt humidifier along with pre-heating function		
1.3	Should Come with energy-saving mode and auto power off/on functions		
1.4	Should Have high-resolution SD card data storage		
1.5	Should come with auto altitude adjustment and auto screen luminance adjustment		
1.6	Should have 3.5" Colour LCD DISPLAY		
1.7	Flow 120 L/min		
1.8	Pressure Setting Range 4-20 cmH2O		
1.9	Max Single Fault Steady Pressure 40 cmH2O		
1.10	Pressure Control Accuracy ±0.5 cmH2O		
1.11	Water capacity of humidifier 290 ml (MAX Water Level)		
2	**Operating Environment**		
2.1	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.		
2.2	100 – 240V, 50/60Hz		
3	**Standards & Safety Requirements**		
3.1	Must submit ISO13485:2003/AC:2007 **AND**		
4	**User Training**		
4.1	Must provide user training (including how to use and maintain the equipment).		
5	**Warranty**		
5.1	Comprehensive warranty for 1 years after acceptance.		
6	**Maintenance Service During Warranty Period**		
6.1	During the warranty period supplier must ensure planned preventive maintenance (PPM)		

	along with corrective/breakdown maintenance whenever required.		
7	**Installation and Commissioning**		
7.1	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.		
8	**Documentation**		
8.1	User (Operating) manual in English.		
8.2	Service (Technical / Maintenance) manual in English.		

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Province 2

Janakpurdham, Dhanusha

NEC No: 293

Fibreoptic Bronchoscope

S.N.	Purchaser's Specifications	Bidder's Offer	pg.no in catalogue
	Fibreoptic Bronchoscope		
	Manufacturer		
	Brand		
	Type / Model		
	Country of origin		
1	**Description of Function**		
1.1	To examine breathing passage(airways)of the lungs.		
2	**Operational Requirements**		
2.1	The System should be portable intubation endoscope, which should be ideal for use in emergencies or the outpatient department		
3	**Technical Specifications**		
3.1	The system should support quick and reliable intubation techniques and complete airway management and it must be compact with the high definition display		
3.2	The System should be portable intubation endoscope, which should be ideal for use in emergencies or the outpatient department		
3.3	The system should be used for intubation purpose		
3.4	The system should have superfine Images and consistent high quality(HD		
3.5	The accurate aspiration should be controlled simply by the touch of a one-piece leak-proof suction button.		
3.6	The system should provide strong suction capacity of mucous as well as viscous bronchial secretions in case of emergency, and is ideal for placement of		

	single lumen ET tubes and for orientation of intubation.		
3.6	The instrument channel inlet should be located away from the eyepiece which reduces the risk of contamination by distancing any potential spewing debris away from the operator's eyes		
3.7	There should be the options of simple, semi disposable rubber suction valve and a high-quality plastic/metal suction control valve, which can be chosen by the user.		
3.8	The channel inlet seal must allow direct attachment and use of standard luer-slip syringes without the need to remove the rubber seal during installation of fluids.		
3.9	The tight bending system of this system allows sharp angulation which simplify orientation and confirmation of the position of the endotracheal tube		
3.10	It should be equipped with a compact, lightweight battery-powered illumination light source.		
3.11	The system should have the facility to upgrade to an AC power outlet and used with a conventional light source with the help of light guide cable.		
3.12	The system should be reusable and tip of the scope should not be used for single-use which guides most difficult airway intubation and PDT Procedures.		
3.13	It should have superb insert ability.		
3.14	The system should be completely immiscible in reprocessing solution, either by themselves (with soaking cap attached), with the battery/lamp unit attached or with the fiber optic cable installed		
3.15	It should be convenient and have portable light source options.		
3.16	The insertion tube diameter of the scope should be less than 5mm.		
3.17	The rigid distal diameter of the scope should be less than 5 mm.		

3.18	The working length of the scope should have up to 600 mm.		
3.19	The total length of the scope should not be more than 900 mm.		
3.20	The Angle of view of the scope should have up to 100 degree.		
3.21	The Field of view of the scope must be in between 3 mm to 50 mm.		
3.22	The Diopter of the scope should be in between +2 to -8 ptr.		
3.23	The width of the instrument channel should not be less than 1.9 mm.		
3.24	The tip deflection of the scope should have (Up: 180 degree and Down: 130 Degree)		
4	**Accessories, spares and consumables**		
4.1	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		
5	**Operating Environment**		
5.1	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	**Standards and Safety Requirements**		
6.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 for medical devices		
6.2	CE (93/42 EEC Directives) and USFDA approved product certificate		
7	**User Training**		
7.1	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		
8	**Warranty**		

8.1	Warranty 1 year acceptable.		
8.2	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required		
9	**Installation and Commissioning**		
9.1	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		
10	**Documentation**		
10.1	User (Operating) manual in English		
10.2	Service (Technical / Maintenance) manual in English		

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Bio Medical Engineer – Province 2

Province Health Logistics Management Center

Province 2

Janakpurdham, Dhanusha

NEC No: 293

Technical Specification of Blood Gas Analyser (ABG)

S.N.	Purchaser's Specifications	Bidder's Offer	Pg.no in catalogue
	Blood Gas Analyser (ABG)		
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
1	**Description of Function**		
	Blood gas analysers are used to measure blood gases, electrolytes, pH values and biochemical parameters of the blood.		
2	**Operational Requirements**		
2.1	Fully automatic, upgradeable, fast electrolyte analyser		
3	**System Configuration**		
3.1	Must have microchip multifunctional membrane technology and built in printer		
4	**Technical Specifications**		
4.1	Essential Measured parameters: PCO2,PO2,PH,Na+,K+,Ca+,Cl+,Hct,Glu,Lac which should come in single cartridge or combo cartridge.		
4.2	Calculated parameters must include BE, BE ecf, HCO3, Anion Gap, SaO2.		
4.3	**Sample volume**:- less than 200ul.		
4.4	Fast analysis time – less than 60 sec		
4.5	Should be Advanced single use test cartridge or combo cartridge which avoid contamination.		
4.6	Must have automatic calibration in each test for accuracy.		
4.7	Must have Zero Maintenance of the instrument without any chance of blood clot inside instrument		
4.8	Data display :LCD colour touch screen 7" size display or more		
4.9	Data print out on built in graphic printer.		
4.10	Built in auto Quality control facility		
4.11	Automatic result processing, test ordering and transmission to the LIS/HIS system(laboratory Information System/Hospital Information System)		
4.12	Reagent cartridge self life: 6 month or more on room temperature.		
4.13	Interface: RS-232, LAN or wifi and also come with at least 2 USB ports		
4.14	Entered parameter: Patient ID, Patient temp,		

	Sample type, Height, Weight, Sex, Age		
4.15	Standby mode: Standby mode without consumption of Reagents.		
4.16	Data Storage: at least data capacity of 1000 for patient results.		
4.17	Back up: Having Backup system of rechargeable lithium ion battery for minimum 30 samples continuous testing or suitable online UPS for minimum of 30 min. backup.		
5	**Accessories, spares and consumables**		
5.1	**Accessories:**		
	• Quality control tools/reagents for free of cost for 200test.	•	•
	• Cost of reagents must be quoted for comparative. evaluation	•	•
5.2	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).		
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	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 for Medical Devices **AND**		
7.2	CE (93/42 EEC Directives) And USFDA approved product certificate.		
7.3	Shall meet IEC 61010-2-081: Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes		
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 year 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.		

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Province Health Logistics Management Center

Province 2

Janakpurdham, Dhanusha

NEC No: 293

SN	Technical Specification	Bidders offer	Page number in catalogue
	Patient monitor 7 parameter		
	Manufacturer:		
	Brand:		
	Type/Model:		
	Country of Origin:		
1	**Description Of Function**		
	The machine should be intended for the continuous or intermittent monitoring of human physiological parameters.		
2	**Technical Requirement**		
2.1	The machine shall provide display, storage and analysis of patient information and physiological data and give warnings when certain parameter is out of preset range in forms of audio and visual alarm.		
2.2	The machine shall have the capability to be connected to a central monitoring system for central dispay, storage and analysis of data.		
2.3	The machine should have both wall mount and upgradable to trolley solutions		
2.4	The machine should have minimum Battery backup of 4 hours.		
2.5	The maichine weight should be less than 2.4 kgs		
2.6	The machine Should have dual alarm lights		
2.7	The machine Should be able to calculate MEWS(Modified Early Warning Score)for the measurement of each vital signs		
2.9	The machine Should be able to measure SPO2 and NIBP of the same limb simultaneously		
2.10	The machine should have different level of alarms and different type of tone.		
2.11	The machine should follow Class I anti-electroshock type.		
2.12	The machine should have minimum 48 hours Trend data at 1min resolution.		
3	**Display**		
2.1	Should have at least 12.1" TFT LCD display with touchScreen		
2.2	Should Have at least Resolution of 800*600		
2.3	Sholuld have minimum 11 waveform		
2.4	Should have short trend view		
2.5	Should have OxyCRG View		
2.6	Should have large Font View		
4	**Parameters**		

3.1	Should have 12 lead ECG		
3.2	The machine should be capable of measuring Respiration		
3.3	The machine should be capable of measuring NIBP.		
3.4	The machine should be capable of measuring SpO2.		
3.5	The machine should be capable of measuring Temperature.		
3.6	upgradable to 2 IBP		
3.7	Should be Upgradable to Cardiac Output if needed.		
3.8	Upgradable to EtCO2(Respironics Mainstream or Sidestream)		
5	**ECG**		
4.1	Heart Rate Rage: Adult:15 bpm ~ 300bpm Ped/Neo:15 bpm ~ 350bpm		
4.2	CMRR(Diagnosis >100 dB Monitor >110 dB Surgery >110dB		
4.3	Should be able to run the monitor in Surgery , Diagnosos and Enhanced mode		
4.4	Should able to perform ST Analysis		
4.5	It should have Arrhythmia Analysis(33 types)		
4.6	It should have Pacemaker Detection for ECG.		
4.7	Should be Defibrillation Protection		
4.8	The ECG should be ESU Protection		
6	**NIBP**		
5.1	The NIBP Should have the following Mode:Manual/auto/continuous		
5.2	Adult range (mmHg): SYS: 40 ~ 270 DIA: 10 ~ 215 MAP: 20 ~ 235		
5.3	Pediatric range (mmHg): SYS: 40 ~ 200 DIA: 10 ~ 150 MAP: 20 ~ 165		
5.4	Neonatal range (mmHg): SYS: 40 ~ 135 DIA: 10 ~ 100 MAP: 20 ~ 110		
5.5	Should have dual dust filter design for no blockage and accuracy .		
5.6	Should have over pressure protection		
5.7	Should have cleaning mode .		
5.8	Should have Maximum mean error: ±5mmHg		
5.9	Should have Maximum standard deviation: 8mmHg		
5.10	The NIBP PR range from 40 bpm ~240bpm		
5.11	PR accuracy: ±3bpm or 3%(Whichever is greater) in NIBP		
5.12	AASI/AAMI SP10 √(Adult/Ped)		
7	**SpO2**		
6.1	The SpO2 Range from 0 ~ 100 %.		
6.2	Accuracy: Adult/Pediatric:±2 digits (70%~100% SpO2) Neo:±3 digits (70%~100% SpO2)		
6.3	The machine should have Zero Mode: Automatic/ Manual in SpO2 mode.		

6.4	The machine should have Pitch Tone in SpO2 mode.		
6.5	The SpO2 should have the PR range: 25bpm ~ 300bpm		
6.6	The SpOo2 should have the PR Accuracy i.e ±3bpm		
8	**Temperature**		
7.1	Should be able to monitor dual temperature values		
7.2	Should also display the difference between these values		
9	**Respiration**		
8.1	Should follow the R-F(RA-LL) Impedance method for measurement of Respiration		
8.2	Should be three leads and nasal canal available when in impedance mode		
8.3	Should display numeric values and respiration wave form as well		
8.4	Should have apnea detection facility		
10	**IBP**		
9.1	Should have two channels		
9.2	Should be able to measure from -60 to 300 mmHg		
9.3	Presurelabes: ART, CVP, RVP, LAP, RAP, PAP, ICP and LVP		
9.4	Measurement precision should be +0.133 kPa (1 mmHg) or +2 %, whichever is greater		
11	**EtCO2**		
10.1	Should be intended for Adult, pediatric, neonatal		
10.2	Should have audio and visual alarms		
10.3	Should have alarm settings for all parameters		
10.4	Should display EtCO2, FiCO2, AwRR		
12	**Storage**		
11.1	The machine should be capable of storing Trends review of all parameters upto 240hrs		
11.2	The machine should be capable of storing NIBP measurement storage upto 1200 sets		
11.3	The machine should be capable of storing Full-disclosure waveforms storage upto 48 hrs.		
11.4	The machine should be capable of alarm storage: 200 sets		
13	**Interface**		
12.1	The machine should have VGA output in it for the interface.		

12.2	The machine should provide analog output.		
12.3	The machine should provide Arrhythmia Events 200 sets		
12.4	The machine should provide 12 lead analysis results 200 sets		
12.5	The machine should provide defibrillator synchronization output		
12.6	The machine should have RJ45 Connection for the LAN connection.		
12.7	The machine should have USB Port for the data transfer.		
12.8	The machine should have nurse call function in emergency condition.		
12.9	The machine should have built-in wifi function for the connection of WLAN.		
15	**Power Supply**		
13.1	The machine should have the power supply range of 100-240V, 50/60Hz		
13.2	The machine should have Li-ion rechargeable Battery for the power backup in emergency.		
13.3	The battery backup should be equal to or more than 240 minutes battery backup.		
16	**Working Environment**		
	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.		
17	**Certificate**		
15.1	Must Submit ISO approved Certificates		
15.2	Must submit CE And FDA approved product Certificates.		
18	**User Training**		
	Must provide user training (including how to use and maintain the equipment).		
19	**Warranty**		
	Comprehensive warranty for 1 year after acceptance.		
20	**Maintenance Service During Warranty Period**		
	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance whenever required.		
21	**Installation and Commissioning**		

	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.		
22	**Documentation**		
	User (Operating) manual in English		

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