

CH. PERVAIZ ELAHI INSTITUTE OF CARDIOLOGY, MULTAN

TECHNICAL COMPARATIVE STATEMENT FOR THE YEAR 2015.16

NAME OF EQUIPMENT: INVASIVE CARDIAC MONITOR WITH BIS, PART-A (QTY-05)


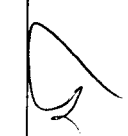
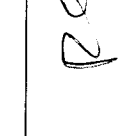
PRE-REQUISITES	M/S Medequips	M/S Shirazi Trading	M/S Vertex Medical
1 The quoted equipment must be manufactured in USA, EU or Japan only	Japan	USA/EU	USA/Germany
2 Specification (PART -A) QTY-05Nos.			
3 Model	CSM 1901	Carescape B650	Infinity Omega S
4 Make	Nihon Kohden	GE	Dragerwerk
5 Country of Origin: USA / Europe / Japan	Japan	USA/EU	USA/Germany
6 Authorization	31.03.2016	31.12.2016	31.12.2016
7 Certification: (FDA (510K) / CE / JIS)	FDA/CE	FDA/CE	FDA/CE
8 Warranty: 5 Years Comprehensive with parts & spare including backup services	5 Years	5 Year	5 Years
9 Modular Bedside monitor for display of vital signs monitoring of Adult, Paeds & Neonates	Modular	Modular	Modular
10 The monitor should have plugin modules for measuring, recording and display of different vital sign	Plugin modules	Plugin modules	Plugin modules
11 Mounted on original wall mounted stands	Base stand DM-190P	Not Offered	Yes
12 Monitors should be connected with central station wirelessly/wired	Through wired	Through wired	Through wired
13 It should be able to connect with HIMS for bidirectional transfer of data and transfer of images	Bi-directional transfer of images not available	Bi-directional transfer of images not available	Bi-directional transfer of images not available
OPERATING FEATURES & CHARACTERISTICS			
15 Electro-surgical interference suppression/ protection	Interference protection	Interference protection	Interference protection
16 Defibrillator protection	Defib protection	Defib protection	Defib protection
17 Freeze and cascade facility	freeze & cascade	freeze & cascade	freeze & cascade
18 waveforms traces speeds 25/50mm/sec	25/50mm/sec	25/50mm/sec	25/50mm/sec
19 Screen size min 15" or more with touch screen coloured	15" TFT	15" TFT	Not mentioned
20 minimum 12 waveforms, or more	12 waveform	14 waveforms	32 waveforms
STANDARD PARAMETERS:			



	PRE-REQUISITES	M/S Medequips	M/S Shirazi Trading	M/S Vertex Medical
22	ECG, NIBP, SpO ₂ , 2-Temp, Respiration, Trends, Arrhythmia Analysis and 4-IBP & EtCO ₂ , CO at the same time	4-IBP & EtCO ₂ , CO at the same time	4-IBP & EtCO ₂ , CO not at the same time	4-IBP & EtCO ₂ , CO not at the same time
23	ECG: (Cable Alligator Type)			
24	Numeric heart rate	Numeric	Numeric	Numeric
25	Waveform: Six wave form minimum, real time freeze ECG trace	Six waveform	Six waveform	12 waveform
26	3, 6 and 12 lead real time monitoring	3/6/12 lead monitoring	3/6/12 lead monitoring	3/6/12 lead monitoring
27	Measuring range: 15 to 300bpm	15 to 300bpm	15 to 300bpm	15 to 300bpm
28	5 and 10 lead each ECG cable with electrodes	3/6/10 lead with electrode	3/6/10 lead with electrode	3/6/10 lead with electrode
29	Ability to detect Adult & Pediatric Heart rate range, QRS widths and amplitudes	TE Compliance	TE Compliance	TE Compliance
30	NONINVASIVE BLOOD PRESSURE (NIBP): (Adult, Paeds, Neonates Cuff)			
31	Method: Oscillometric principle	Oscillometric	Oscillometric	Oscillometric
32	Numeric: Systolic, Diastolic and Mean Pressures	Systolic, DIA, MAP	Systolic, DIA, MAP	Systolic, DIA, MAP
33	Ability to measure Adult & Pediatric B.P	Adult /Paes/neonates	Adult /Paes/neonates	Adult /Paes/neonates
34	Rising Cuff / continuous pressure display	Rising pressure	Rising pressure	Rising pressure
35	Selectable auto inflate interval settings	Auto inflate	Auto inflate	Auto inflate
36	TEMPERATURE (Rectal, Nasal, Skin Probes)			
37	Numeric. Temperature selectable in 'C / F	Both C/F	Both C/F	Both C/F
38	Channels: 2 channels or more	2 Channel	2 Channel	2 Channel
39	Ability to measure Adult & Pediatric temperature range	Adult /Paes/neonates	Adult /Paes/neonates	Adult /Paes/neonates
40	PULSE OXIMETRY: (Adults, Paeds, Neonates Probes)			
41	Numeric: 0-100% Oxygen saturation measuring range	0 -100%	0 -100%	0 -100%
42	Masimo Technology/ Other patent technology with motion tolerance	Masimo	Masimo	Masimo
43	Waveform: Plethysmograph pulse with pulse strength indication Sensor for Pediatrics & Adult Patients	Adult & Paeds	Adult & Paeds	Adult & Paeds
44	RESPIRATION:			
45	Sweep speed: 6.25, 12.5mm/sec.	6.25/12.5 mm/sec	6.25/12.5 mm/sec	6.25/12.5 mm/sec
46	Breath rate display and Settable Apnea Alarm.	TE Compliance	TE Compliance	TE Compliance
47	INVASIVE BLOOD PRESSURE MODULE			
48	4 Channel IBP Monitoring	4-Channel	4-Channel	4-Channel

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PRE-REQUISITES	M/S Medequips	M/S Shirazi Trading	M/S Vertex Medical
49 Numeric: Systolic, Diastolic and Mean Pressure	Systolic, DIA, MAP	Systolic, DIA, MAP	Systolic, DIA, MAP
50 Variable scale: Selectable	Selectable	Selectable	Selectable
51 5 IBP Complete kits	L901	5 IBP Kit	5 IBP Kit
ARRTHIEMIA ANALYSIS:			
53 Arrhythmia analysis and ST analysis with minimum 10 Arrhythmia detection capability	10 ARR detection	10 ARR detection	10 ARR detection
CARDIAC OUTPUT MODULE			
55 Numeric Display	Numeric	Numeric	Numeric
56 Display of Cardiac Output	TE Compliance	TE Compliance	TE Compliance
57 Thermodilution Method	Thermodilution	Thermodilution	Thermodilution
58 One starter kit	K962		
CAPNOGRAPHY (ETCO2)			
60 For measuring of End Tidal CO2	Kit907		
61 Capability of Main / side stream measurements for intubated and non intubated patients.	Sidestream	Mianstream	Sidestream
62 Airway & nasal adapter 50 each adult and paed	30/30	30/30	30/30
TRENDS:			
64 Trends for at least 48-96 hours with graphical and tabular representation for all parameters	24 Hours	TE Compliance	72 Hours
ALARMS:			
66 Selectable automatic Adult and Pediatric Mode alarm limits High and low (settable) on all parameters	VL190P	TE Compliance	TE Compliance
67 Visual and Audible indication of alarms	visual & audio	TE Compliance	TE Compliance
BACKUP SUPPORT			
69 Battery with back up of at least 1-2 hours in case of AC power failure for full parameters.	UPS with 1 hour	TE Compliance	TE Compliance
70 Wall mount or trolley original from manufacturer.	DM-190P	TE Compliance	TE Compliance
Following Modules should be quote separately:-			
72 BIS MONITORING (Optional)	QE-910P	TE Compliance	TE Compliance
73 EEG MONITORING (Optional)	AE-918P	TE Compliance	TE Compliance
74 Able to provide diagnostic EEG data	TE Compliance	TE Compliance	TE Compliance

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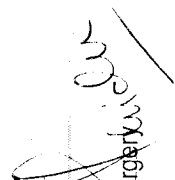
PRE-REQUISITES	M/S Medequips	M/S Shirazi Trading	M/S Vertex Medical
75 Able to provide real time EEG surveillance	TE Compliance	TE Compliance	TE Compliance
76 4 Channel EEG	8 Channel	TE Compliance	8 Channel
77 PICCO (Optional)	PICCO2	TE Compliance	PICCO2
78 Pulse contour cardiac output	TE Compliance	TE Compliance	TE Compliance
79 Continuous cardiac output index	TE Compliance	TE Compliance	TE Compliance
80 Stroke Volume	TE Compliance	TE Compliance	TE Compliance
81 Stroke volume index	TE Compliance	TE Compliance	TE Compliance
82 integrates four invasive pressures	TE Compliance	TE Compliance	TE Compliance
83 Cardiac output by using single cable	TE Compliance	TE Compliance	TE Compliance
84 Battery backup for 1 or more hour with all parameters	UPS with 1 hour	TE Compliance	UPS with 1 hour
85 The system must be complete with all sensors, probe, cable or any other accessories required for measuring all the above selectable parameters for adult & Pediatric applications. All the accessories must be supplied by the same manufacturer	Yes Offered	Yes Offered	Yes Offered
CENTRAL MONITORING SYSTEM			
86 Multi Channel	32 channel	TE Compliance	Infinity Central station
88 Central station to monitor different patient data centrally	upto 32 patients	TE Compliance	upto 32 patients
89 Central station should be connected with above mentioned monitors wirelessly/ wired	Through wired	TE Compliance	Through wired
90 supplied with pure sinewave UPS with minimum battery backup of 1 or more hour	UPS with 1 hour	TE Compliance	UPS with 1 hour
91 Provided UPS must be imported	imported	TE Compliance	imported
OPERATING FEATURES & CHARACTERISTICS			
93 Colored monitor with min 19" or higher	24" Touch	TE Compliance	20" Touch
94 Laser printer Latest HP ro equivalent min 45pages/ min	HP laser printer	TE Compliance	HP laser printer
95 Trend display 72 hours or more	120 hours	TE Compliance	120 hours
96 Event and full disclosure for upto 16 waveforms	16 waveform	TE Compliance	16 waveform
97 HL7 interface capable of connectivity with HIMS	HL7 Interface	TE Compliance	HL7 Interface
98 Bedside connection: min 10bedside monitors or more and will be able to enhance up to 20 or more	upto 32 patients	TE Compliance	upto 32 patients
PARAMETERS			

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PRE-REQUISITES	M/S Medequips	M/S Shirazi Trading	M/S Vertex Medical
100 Selectable display of all parameters of bedside monitors	TE Compliance	TE Compliance	TE Compliance
101 Alarms	TE Compliance	TE Compliance	TE Compliance
102 All parameters alarms on central station monitor with bed No.	TE Compliance	TE Compliance	TE Compliance
103 Identification	TE Compliance	TE Compliance	TE Compliance
104 All alarms of each bedside monitors selectable form central workstation	TE Compliance	TE Compliance	TE Compliance
105 Firm is bound to provide 01X 55" or more LED and will install at two different places as per user recommendation and both display will be connected to central station for live viewing and monitoring of each patients	55" LED	55" LED	55" LED
106 Installation of network cables as per international standards will be responsibility of firm	TE Compliance	TE Compliance	TE Compliance
107 Central station and monitors must be from same manufacturer	TE Compliance	TE Compliance	TE Compliance
REMARKS	Technically Accepted	Technically Accepted	Technically Accepted


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 (Chairman)


 Dr. Rana Altaf
 Prof. of Anesthesia
 CPEIC, Multan
 (End-User)

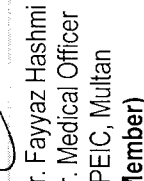

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