PHONE NO: 071-9310213 FAX 9310119.
OFFICE OF THE MEDICAL SUPERINTENDENT GHULAM MUHAMMAD MAHAR MEDICAL COLLEGE HOSPITAL SUKKUR

NO: MS/GMCHS/P/Sukkur 4701/3 DATED: 10 March 2018.

To,

The Managing Director,
SPPRA Sindh Secretariat,
Karachi.

SUBJECT: SUBMISSION OF PURCHASE OF PLANT & MACHINERY & EQUIPMENTS (NON-ADP) NOTIFICATION PC, CRC, ANNUAL PROCURMENT PLAN AND BIDDIND DOCUMENTS.

Enclosed please find herewith the following documents for NIT to be published and hoisting on SPPRA Website.

1.	Notification of Procurement Committee.	Annexure –A
2.	Notification CRC.	Annexure –B
3.	Annual Procurement Plan	Annexure –C
4.	Bidding Documents with evaluation Certificate	Annexure –D
5.	Copy of NIT	Annexure –E
6.	Copy of News paper	Annexure –F

This is for information and early process please.

10/3/18

MEDICAL SUPERINTENDNET
GMMMC HOSPITAL SUKKUR

Copy forwarded to the Secretary Health Department Government of Sindh Karachi.
Copy forwarded to the Additional Secretary (Development) Government of Sindh Karachi.

MEDICAL SUPERINTENDNET
GMMMC HOSPITAL SUKKUR

SPPRA INWARD DIARY
NO: 6915
DATED: 12-03-2018

GOVERNMENT OF SINDH
HEALTH DEPARTMENT

NOTIFICATION

No.SO(PM&I)2-1/17-18/PM-08(GMCHS): A Procurement Committee in respect of Ghulam Muhammad Mahar Medical College Hospital, Sukkur is hereby constituted comprising the following members for the Procurement of Plant & Machinery of various Department and Units at GMMMCH, Sukkur, for the financial year 2017-18.

01.	**Medical Superintendent,** GMMMC Hospital Sukkur.	**Chairman**
02.	**Additional Medical Superintendent,** GMMMC Hospital Sukkur.	Member
03.	**Representative of Commissioner,** Sukkur Division, Sukkur.	Member

TORs

The TORs / Functions / Responsibilities of the Procurement committee in accordance with Rule-8 of SPP Rules 2010 shall be as under:

a) Preparing bidding documents;
b) Carrying out technical as well as financial evaluation of the bids;
c) Preparing evaluation report as provided in Rule-45;
d) Making recommendations for the award of contract to the competent authority;
e) Perform any other function ancillary and incidental to the above.

SECRETARY HEALTH

No.SO(PM&I)2-1/17-18/PM-08(GMCHS): Karachi, dated: 21st Feburary, 2018

C.C. to:

1. The Managing Director, Sindh Public Procurement Regulatory Authority, Karachi.
2. The Medical Superintendent, Ghulam Muhammad Mahar Medical College Hospital, Sukkur with reference to his letter dated: 25-01-2018.
3. The Chairman & all members of the Committee.
4. The P.S. to Secretary Health.

(NAVEED AHMED SOOMRO
SECTION OFFICER (PM&I)

NO.HD(P&E) 3-2 (427)
GOVERNMENT OF SINDH
HEALTH DEPARTMENT
(Procurement, Monitoring and Inspection Cell)

NOTIFICATION

No. HD(P&E)3-2(0427)/2014: In supersession to this department's notification of even number dated: 10-06-2017 and in pursuance of Rule 31 of the Sindh Public Procurement Rules, 2010, the Govt. of Sindh, Health Department, re-constituted [redacted] comprising of the following officers for scrutinizing the complaints of aggrieved bidders against tender invited by Health Institutions / Hospitals / Programs / Projects in Sindh

01	Secretary Health, Govt. of Sindh	Chairman
02	Representative from Accountant General Sindh	Member
03	Independent expert from relevant field concerning (to be nominated by the Head of Procuring Agency)	Member
04	Deputy Secretary (PM&I)	Member/ Convener
05	Deputy Secretary (General)	Member

TORs

- To scrutinize the complaints from the aggrieved bidders and decide [redacted] strictly in accordance with SPP Rules 2010.

SECRETARY HE[redacted]

No. HD(P&E)3-2(427)/2014:

C.C to:

1. The Director General Health Services Sindh, Hyderabad.
2. The District Health Officers (All)
3. The Medical Superintendents (All)
4. The P.S. to Chief Secretary Sindh, Karachi.
5. The Managing Director, Sindh Public Procurement Regulatory Authority, Karachi.
6. The Special Secretary, Add. Secretary (Admn/Development/Public Health) Health Department.
7. The Chairman& all members of the Committee.
8. The P.S. to Secretary Health.

(NAVEED AHMED SOOMRO)
SECTION OFFICER (PM&I)

Phone # 99203108, 99204203
No. SO (M&I) 2-1/2013 (CRC)

GOVERNMENT OF SINDH
HEALTH DEPARTMENT
(PROCUREMENT MONITORING & INSPECTION CELL)
Karachi, Dated: the 28th March, 2015

NOTIFICATION

In supersession of this Department's notification of even number dated: 29th July, 2013 and in pursuance of Rules-31 and 32 of Sindh Public Procurement Rules 2010, the Government of Sindh, Health Department re-constitutes Complaint Redressal Committee (CRC) comprising of the following officers for scrutinizing the complaints of aggrieved bidders against tender invited by Health Institutions / Hospitals / Programmes / Projects in Sindh.

01	Secretary Health Department, Sindh	Chairman
02	Additional Secretary(PM&I),Health Department, Sindh	Member
03	Professor Khalida Soomro, Professor of Cardiology, Dow University of Health Sciences / Civil Hospital, Karachi.	Member
04	Dr. Syed Khalid Hussain, Procurement Executive, N.I.C.V.D., Karachi.	Member
05	Representative from Accountant General Sindh, Karachi	Member

TORs

- To scrutinize the complaints from the aggrieved bidders and decide the cases strictly in accordance with SPP Rules 2010.

IFTIKHAR ALI SHALLWANI
SECRETARY HEALTH

No. S.O.(PM&I) 2-1/2011(CRC) Karachi, dated, the 28th March, 2015

C.C to:

1. The P.S.to Chief Secretary Sindh, Karachi.
2. The Managing Director, Sindh Public Procurement Regulatory Authority, Karachi.
3. The Executive Director, NICVD, Karachi.
4. The Director General Health Services Sindh, Hyderabad.
5. The Additional Secretary (Admn/Development/Public Health), Health Department.
6. The Chairman & all members of the Committee.
7. The P.S. to Secretary Health Sindh.

(RASHID HUSSAIN)
SECTION OFFICER (PM&I)

PHONE NO: 071-9310213 FAX 931o119.

OFFICE OF THE MEDICAL SUPERINTENDENT GHULAM MUHAMMAD MAHAR MEDICAL COLLEGE HOSPITAL SUKKUR
HEALTH DEPARTMENT GOVERNMENT OF SINDH ANNUAL PROCUREMENT PLAN (WORKS, GOODS, SERVICES)

Sr.#	Description of Procurement	Quantity (where Applicable)	Estimated Unit Cost (where applicable) Million	Funds allocated (million)	Source of funds (ADPs Non ADPs)	Proposed Procurement Method	Timing of Procurements				Remarks
							1st QTR.	2nd QTR.	3rd QTR.	4th QTR.	
1.	Purchase of Drugs / Medicines (15%) Local Purchase on Daily Emergency basis& from Zakat Fund	Mentioned in the Tender From	N/A	32.00 (M)	NON - ADP	SPPRA Rules 2010 Clause 46(2) S	✓	✓	✓	✓	------
2.	Diet for Patients	Mentioned in the Tender From	N/A	16.61(M)	NON - ADP	SPPRA Rules 2010 Clause 46(2) S	✓	✓	✓	✓	------
3.	Consumables / Laboratory Items	Mentioned in the Tender From	N/A	10.152 (M)	NON - ADP	SPPRA Rules 2010 Clause 46(2) S	✓	✓	✓	✓	------
4.	Security (Security Guard)	Mentioned in the Tender From	N/A	5.00 (M)	NON - ADP	SPPRA Rules 2010 Clause 46(2) S	✓	✓	✓	✓	------
5.	Medical Gas (Oxygen, Nitrous Oxide Etc.)	Mentioned in the Tender From	N/A	4.714(M)	NON - ADP	SPPRA Rules 2010 Clause 46(2) S	✓	✓	✓	✓	------
6.	Uniforms & Protective Clothes	Mentioned in the Tender From	N/A	1.719(M)	NON - ADP	SPPRA Rules 2010 Clause 46(2) S	✓	✓	✓	✓	------
7.	Other Misc: (Petty Articles)		N/A	1.719 (M)	NON - ADP	SPPRA Rules 2010 Clause 46(2) S	✓	✓	✓	✓	------
8.	Repair & Maintenance of Machinery & Equipments	Mentioned in the Tender From	N/A	2.499 (M)	NON - ADP	SPPRA Rules 2010 Clause 46(2) S	✓	✓	✓	✓	------
9.	Repair & Maintenance of Office Buildings	Mentioned in the Tender Form	N/A	83.60 (M)	NON-ADP	SPPRA Rules 2010 Clause 46(1) S	✓	✓	✓	✓	------
10.	Purchase of Plant & Machinery & Equipments	Mentioned in the Tender Form	N/A	50.00 (M)	NON-ADP	SPPRA Rules 2010 Clause 46(1) S	✓	✓	✓	✓	------
11.	Establishment of 50 Bedded Medical & Surgical ICU with Expansion of other Units at GMMMC Hospital Sukkur.	Mentioned in the Tender Form	As per PC-I	107.00 (M)	ADP	SPPRA Rules 2010 Clause 46(1) S	✓	✓	✓	✓	------

10/3/18

MEDICAL SUPERINTENDENT
GMMMC HOSPITAL SUKKUR

PHONE NO.071-9310213 FAX NO. 071-9310119

OFFICE OF THE MEDICAL SUPERINTENDENT GHULAM MUHAMMAD MAHAR MEDICAL COLLEGE HOSPITAL SUKKUR

NO.GMCH/Sukkur/ 4959/65 DATED 03 March 2018.

CORRIGENDUM

In continuation of NIT NO: MS/GMCHS/3112/15 dated 15-02-2018, already published in various Newspapers Dawn, Jung and kawish.

Description	1.	Purchase of Plant, Machinery & Equipments	
Dated of Sale of Tender Document		From the publication of Tender in Newspapers.	Cost of Tender Rs. 3000/-for each component
Last date of Sale of Tender		27-03-2018 upto 02:00 PM	
Date of Submission of Tender		29-03-2018 upto 02:00 PM	
Date of Opening		29-03-2018 at 03:00PM	
Tender Opening Venue		Office of the Medical Superintendent GMMMC Hospital Sukkur	

Whereas all the other terms &conditions are same.

2/3/18

MEDICAL SUPERINTENDENT
GMMMC HOSPITAL SUKKUR

1. Copy submitted to the Secretary Health Government of Sindh Karachi for kind information.
2. Copy forwarded to the Managing Director SPPRA Government of Sindh Karachi for information.
3. Copy forwarded to the Director (Information & Advertisement) Information Department Government of Sindh Karachi for information and seven (07) copies for early publication in three (03) leading News Papers Sindhi, Urdu and English.
4. Copy forwarded to the Director (A&F) SPPRA/3-15 Government of Sindh Public Procurement Regulatory for information, along with soft & hard copy of Notice for information and placing the same on the SPPRA Web site.
5. Copy for members Procurement Committee for information.
6. Copy to Notice Board.

2/3/18

MEDICAL SUPERINTENDENT
GMMMC HOSPITAL SUKKUR

PHONE NO: 071-9310213 FAX 9310119.
OFFICE OF THE MEDICAL SUPERINTENDENT GHULAM MUHAMMAD MAHAR MEDICAL COLLEGE HOSPITAL SUKKUR

NO: MS/GMCHS/ Sukkur/ 3112/15 DATED: 15/02/ 2018.

NOTICE INVITING TENDER

The Medical Superintendent, GMMMC Hospital Sukkur hereby invites the sealed bids from interested and eligible bidders who fulfills the eligibility criteria for the supply of **Plant, Machinery and Fixture** for GMMMC Hospital Sukkur under the relevant provision of **Sindh Public Procurement Rules 2010 (Amended 2017).**

The bids must be submitted on opening date of tenders one hour prior i.e upto 2:00 PM which will be opened publicly in the presence of the bidders or their authorized representatives who choose to attend at 3:00 AM in the Office of the Medical Superintendent Ghulam Muhammad Mahar Medical College Hospital Sukkur.

All bids must be accompanied by a bid security @ 2% of the total quoted cost in shape of pay order/bank guarantee.

The chairman procurement committee reserves the right to postpone / accept / reject any or all bids under the relevant provision of **Rule 25 Sindh Public Procurement Rules 2010 (Amended 2017).**

The complete set of tender enquiry / bidding documents may be purchased from Office of the Medical Superintendent GMMMC Hospital Sukkur on submission of written application on the letter head of registered firms/company upon cash payment of non-refundable fee mentioned below from the date of publication of advertisement in newspapers.

Description of Stores	Purchase of Plant, Machinery & Equipments.	
Dated of Sale of Tender Document	From the date of publication of Tender in Newspapers.	
Last date of Sale of Tender	15-03-2018 upto 2:00 PM	Tender Fee Rs. 3000/-
Date of Submission of Tender	15-03-2018 upto 2:00PM	
Date of Opening	15-03-2018 upto 3:00PM	
Tender Opening Venue	Office of the Medical Superintendent GMMMC Hospital Sukkur	

N.B.

- **In case, the Chairman Procurement Committee is out of Headquarter or any of the member is not available and if the Govt announces Public Holiday then Tender will be submitted and opened on next working day following all the same terms and conditions.**
- **All NITs shall include Government Taxes including Professional Tax, GST, SRB and others if applicable.**
- **Information regarding this NIT may also be downloaded from SPPRA website: www.pprasindh.Gov.pk& Sindh Government Website: www.sindh.gov.pkand the website of GMMMC Hospital.**

15/2/18

MEDICAL SUPERINTENDENT
GMMMC HOSPITAL SUKKUR

آفيس آف دي ميڊيڪل سپرنٽينڊنٽ غلام محمد مهر ميڊيڪل ڪاليج اسپتال سکر
No.GMCH/Sukkur/4259/65 Dated: 03 March, 2018
فون: 071-9310213، فيڪس: 071-9310119

تصحيح

اين آءِ ٽي نمبر 15/MS/GMCHS/3112 تاريخ 15-02-2018 جي تسلسل ۾ جيڪو اڳ ۾ ٽي مختلف اخبارن: ڊان، جنگ ۽ ڪاوش ۾ شايع ٿي چڪو آهي.

تفصيل	1	پلانٽ، مشينري ۽ اليڪٽرونڪس جي خريداري	
ٽينڊر ڪاغذن جي وڪري جي تاريخ:		ٽينڊر جي اخبارن ۾ شايع ٿيڻ کان.	ٽينڊر في
ٽينڊر وڪڻڻ جي آخري تاريخ:		27-03-2018 منجهند 2:00 وڳي تائين	3000 رپيا
ٽينڊر اماڻڻ جي تاريخ:		29-03-2018 منجهند 2:00 وڳي تائين	هر هڪ
کولڻ جي تاريخ:		29-03-2018 ٽيهري 3:00 وڳي	ڪمپونينٽ
ٽينڊر کولڻ جو هنڌ:		آفيس آف دي ميڊيڪل سپرنٽينڊنٽ GMMMC اسپتال سکر	لاءِ

جڏهن ته ٻيا سمورا شرط ۽ ضابطا ساڳيا رهندا.

ميڊيڪل سپرنٽينڊنٽ
GMMMC اسپتال سکر

INF/KRY.No:1252/2018

آفيس آف دي ميڊيڪل سپرنٽينڊنٽ غلام محمد مهر ميڊيڪل ڪاليج اسپتال سکر
No.GMCH/Sukkur/4247/52 Dated: 03 March, 2018
فون: 071-9310213، فيڪس: 071-9310119

تصحيح

اين آءِ ٽي نمبر 19/MS/GMCHS/3116 تاريخ 15-02-2018 جي تسلسل ۾ جيڪو اڳ ۾ ٽي مختلف اخبارن: ڊان، جنگ ۽ ڪاوش ۾ شايع ٿي چڪو آهي.

تفصيل	1.	ADP اسڪيم جي وينيو ڪمپونينٽ جي خريداري جهڙوڪ: GMMMC اسپتال سکر ۾ 50 سيٽرن جي سرجيڪل آءِ سي يو جو تيار، بين يونٽس جي توسيع سميت.	
ٽينڊر ڪاغذن جي وڪري جي تاريخ:		ٽينڊر جي اخبارن ۾ شايع ٿيڻ کان.	ٽينڊر في 3000 رپيا
ٽينڊر وڪڻڻ جي آخري تاريخ:		27-03-2018 منجهند 2:00 وڳي تائين	هر هڪ
ٽينڊر اماڻڻ جي تاريخ:		29-03-2018 منجهند 2:00 وڳي تائين	ڪمپونينٽ
کولڻ جي تاريخ:		29-03-2018 ٽيهري 3:00 وڳي	لاءِ
ٽينڊر کولڻ جو هنڌ:		آفيس آف دي ميڊيڪل سپرنٽينڊنٽ GMMMC اسپتال سکر	

جڏهن ته ٻيا سمورا شرط ۽ ضابطا ساڳيا رهندا.

ميڊيڪل سپرنٽينڊنٽ
GMMMC اسپتال سکر

INF/KRY.No:1253/2018

SAY NO TO CORRUPTION
اسان دهشتگردي جي خلاف متحد آهيون
TEXT
سنڌ ۾ تعليم جي بهتري لاءِ علمي ۽ پنهنجو پيغام لکي 8398 تي ايس ايم ايس ڪريو

آفيس آف دي ميڊيڪل سپرنٽينڊنٽ
سنڌ گورنمينٽ لياري جنرل هاسپيٽل،
ڪراچي

ڌليپ شنڪر (سينيٽري ورڪر)، سنڌ گورنمينٽ لياري جنرل اسپتال، ڪراچي ڏانهن

گهر جي ائڊريس:
پرسنل فائل ۾ فراهم ڪيل ته آهي.

ڪورٽ نوٽيس

عام اطلاع

پرنسپل

پولیس ٹریننگ کالج، شہزاد پور

INF-KRY:No.1036/2018

دفتر میڈیکل سپرنٹنڈنٹ غلام محمد مہر میڈیکل کالج اسپتال سکھر

فون نمبر 071-9310213، فیکس نمبر 9310119

No.MS/GMCHS/Sukkur/3112/15 Dated:15-02-2018

ٹینڈر طلبی نوٹس

میڈیکل سپرنٹنڈنٹ، GMMMC اسپتال سکھر کو سندھ پبلک پروکیورمنٹ رولز 2010 (ترمیم شدہ 2017) کی متعلقہ شق کے تحت GMMMC اسپتال سکھر کیلئے پلانٹ، مشینری اور ٹیکچر کی فراہمی کیلئے معیار اہلیت پر پورا اترنے والے دلچسپی کے حامل اور اہل بولی دہندگان سے بذریعہ ہذا سربمہر پیشکشیں مطلوب ہیں۔

پیشکشیں، ٹینڈر کھلنے کی تاریخ سے ایک گھنٹہ قبل یعنی دوپہر 02:00 بجے تک لازماً جمع کرائی جائیں جو دفتر میڈیکل سپرنٹنڈنٹ غلام محمد مہر میڈیکل کالج اسپتال سکھر میں سہ پہر 03:00 بجے شرکت کے خواہاں بولی دہندگان یا ان کے مجاز نمائندوں کی موجودگی میں عوامی طور پر کھولی جائیں گی۔

تمام پیشکشوں کے ہمراہ کل درج کردہ لاگت کے 2% کی شرح سے بڈ سیکورٹی اشکل پے آرڈر/ بینک گارنٹی لازماً منسلک کرنی ہوگی۔

رول 25 سندھ پبلک پروکیورمنٹ رولز 2010 (ترمیم شدہ 2017) کی متعلقہ شق کے تحت چیئرمین پروکیورمنٹ کمیٹی کو کسی یا تمام پیشکشوں کو ملتوی/ قبول/ مسترد کرنے کا حق حاصل ہے۔

ٹینڈر اکنوائری/ بڈنگ دستاویزات کا مکمل سیٹ، رجسٹرڈ فرمز/ کمپنی کے لیٹر ہیڈ پر تحریری درخواست جمع کرانے اور ذیل میں درج کردہ ناقابل واپسی فیس کی نقد ادائیگی پر اشتہار کی اخبارات میں اشاعت کی تاریخ سے دفتر میڈیکل سپرنٹنڈنٹ GMMMC اسپتال سکھر سے خریدا جاسکتا ہے۔

پلانٹ، مشینری اور ایکوپمنٹس کی خریداری

اسٹورز کی تفصیل	اخبارات میں اشاعت کی تاریخ	ٹینڈر فیس
ٹینڈر دستاویزات کی فروخت کی تاریخ	15-03-2018 دوپہر 02:00 بجے تک	Rs.3000/-
ٹینڈر کی فروخت کی آخری تاریخ	17-03-2018 دوپہر 02:00 بجے تک	
ٹینڈر جمع کرانے کی تاریخ	17-03-2018 سہ پہر 03:00 بجے تک	
کھلنے کی تاریخ		
ٹینڈر کھلنے کا مقام	دفتر میڈیکل سپرنٹنڈنٹ GMMMC اسپتال سکھر	

نوٹ:

- چیئرمین پروکیورمنٹ کمیٹی کے ہیڈکوارٹر سے باہر ہونے یا کسی ممبر کی عدم دستیابی اور حکومت کی جانب عام تعطیل کے اعلان کی صورت میں ٹینڈر تمام انہی قواعد وضوابط کے کیساتھ آئندہ کام والے دن جمع کرایا اور کھولا جائیگا۔
- تمام NIT بشمول گورنمنٹ ٹیکسز بشمول پروفیشنل ٹیکس، SRB، GST اور دیگر، اگر قابل اطلاق ہوں، ہوں گے۔
- NIT ہذا سے متعلق معلومات SPPRA ویب سائٹ www.pprasindh.gov.pk اور سندھ گورنمنٹ ویب سائٹ www.sindh.gov.pk اور GMMMC اسپتال کی ویب سائٹ سے بھی ڈاؤن کی جاسکتی ہیں۔

دستخط

میڈیکل سپرنٹنڈنٹ

GMMMC اسپتال سکھر

INF-KRY:No.1081/2018

دفتر میڈیکل سپرنٹنڈنٹ غلام محمد مہر میڈیکل کالج اسپتال سکھر

فون نمبر 071-9310213، فیکس نمبر 9310119

Dated:15-02-2018

آفيس آف دي ميڊيڪل سپرنٽينڊنٽ
غلام محمد مهر ميڊيڪل ڪاليج اسپتال سکر

Dated: 15-02-2018

No.MS/GMCHS/Sukkur/3112/15

فون: 071-9310213، فيڪس: 9310119

ٽينڊر گهرائڻ لاءِ نوٽيس

ميڊيڪل سپرنٽينڊنٽ جي ايم ايم سي اسپتال سکر دلچسپي ۽ اهليت رکندڙ واڪ ڊيندڙ جيڪي اهليتي معيار تي پورا لهن جي ايم ايم سي اسپتال سکر لاءِ پلانٽ، مشينري فڪسچر جي سپلاءِ لاءِ سنڌ پبلڪ پروڪيورمينٽ رولز 2010 (ترميم ٿيل 2017) جي لاڳاپيل فقرن موجب مهربند واڪ گهرائي ٿو.

واڪ ٽينڊرز کولڻ واري تاريخ تي هڪ ڪلاڪ اڳ منجهند 2:00 وڳي تائين جمع ڪرائڻ لازمي گهرجن. جيڪي واڪ ڊيندڙن يا سندن نمائندن جي موجودگيءَ ۾ جيڪي حاضر ٿيڻ جي خواهش رکن ٽيهري 3:00 وڳي آفيس آف دي ميڊيڪل سپرنٽينڊنٽ غلام محمد مهر ميڊيڪل ڪاليج اسپتال سکر ۾ کوليا ويندا.

سمورا واڪ، واڪ سيڪيورٽي جي 2% ٽوٽل ڪئيل رقم ۾ پي آرڊر/بينڪ گارنٽي سان گڏ شامل لازمي هجن.

چيئرمين پروڪيورمينٽ ڪميٽي رول 25 آف سنڌ پبلڪ پروڪيورمينٽ رولز 2010 (ترميم ٿيل 2017) جي لاڳاپيل شقن موجب سمورا واڪ ملتوي/رد/قبول ڪرڻ جو حق محفوظ رکي ٿو.

ٽينڊر انڪوائري/واڪ دستاويزات جو مڪمل سيٽ آفيس آف دي ميڊيڪل سپرنٽينڊنٽ جي ايم ايم سي اسپتال سکر کان رجسٽرڊ فرمن/ڪمپني جي ليٽر هيڊ تي لکت ۾ درخواست ڏيڻ تي ڪيش پيمنٽ هيٺ جاٿايل ناقابل واپسي جوڳي ۽ اخبارن ۾ شايع ٿيڻ واري تاريخ کانپوءِ خريد ڪري سگهجن ٿا.

اسٽورز جو تفصيل	پلانٽس، مشينري ۽ ايڪيوپمينٽ جي خريداري	ٽينڊر
ٽينڊر دستاويزات خريد ڪرڻ جي تاريخ:	اخبارن ۾ شايع ٿيڻ واري تاريخ	3000 رپيا
ٽينڊر خريد ڪرڻ جي آخري تاريخ:	15-03-2018 منجهند 2:00 وڳي	
ٽينڊر جمع ڪرائڻ جي تاريخ:	17-03-2018 منجهند 2:00 وڳي	
ٽينڊر کولڻ جي تاريخ:	17-03-2018 ٽيهري 3:00 وڳي	
ٽينڊر کولڻ جو هنڌ:	آفيس آف دي ميڊيڪل سپرنٽينڊنٽ جي ايم ايم سي اسپتال سکر	

تمام ضروري:

- چيئرمين پروڪيورمينٽ ڪميٽي يا ڪو به ميمبر هيڊڪوارٽر کان ٻاهر هجڻ جي صورت ۾ يا جيڪڏهن گورنمينٽ پاران عام موڪل ڪرڻ جي صورت ۾ ٽينڊر جمع ڪيا ۽ کوليا ويندا ايندڙ ڪم ڪار واري ڏينهن تي هيٺ ڏنل سمورا شرط ۽ ضابطا ساڳيا رهندا.
- سمورن اين آءِ ٽيز ۾ گورنمينٽ ٽيڪسز، پروفيشنل ٽيڪس، جي ايس ٽي، ايس آر بي ۽ سيون جيڪڏهن لاڳو ٿيڻ جوڳيون هجن شامل هوندا.
- هن اين آءِ ٽي بابت معلومات پي ايس پي پي آر اي جي ويب سائيٽ www.pprasindh.gov.pk ۽ سنڌ گورنمينٽ جي ويب سائيٽ www.sindh.gov.pk ۽ جي ايم ايم سي اسپتال جي ويب سائيٽ تان به ڊائون لوڊ ڪري سگهجن ٿا.

ميڊيڪل سپرنٽينڊنٽ
GMMMC اسپتال سکر

INF/KRY.No:1081/2018

24-2-2018 Dawn 24

OFFICE OF THE MEDICAL SUPERINTENDENT
GHULAM MUHAMMAD MAHAR
MEDICAL COLLEGE HOSPITAL SUKKUR

PHONE NO: 071-9310213 — FAX: 9310119

NO.MS/GMCHS/Sukkur/3112/15 Dated 15-02-2018

NOTICE INVITING TENDER

The Medical Superintendent, GMMMC Hospital Sukkur invites sealed bids from the interested and eligible bidders who fulfill the eligibility criteria for the supply of **Plant, Machinery and Fixture** for GMMMC Hospital Sukkur under the relevant provision of **Sindh Public Procurement Rules 2010 (Amended 2017).**

The bids must be submitted on prior one hour of opening date of tenders i.e. upto 2:00 PM which will be opened publicly in presence of the bidders or their authorized representatives who choose to attend at 3:00 AM in the Office of the Medical Superintendent, Ghulam Muhammad Mahar Medical College Hospital Sukkur.

All bids must be accompanied by a bid security @2% of the total quoted cost in shape of pay order / bank guarantee.

The Chairman, Procurement Committee, reserves the right to postpone / accept / reject any or all bids under the relevant provision of **Rule 25 Sindh Public Procurement Rules 2010 (Amended 2017).**

...lete set of tender inquiry / bidding documents may be purchased from office of the Medical Superintendent, GMMMC Hospital Sukkur on submission of a written application on the letterhead of registered firm / company upon cash payment of non-refundable fee mentioned below from the date of publication of this advertisement in the newspapers.

Description of Stores	Purchase of Plant, Machinery & Equipment	Tender Fee Rs. 3000/-
Date of Sale of Tender Document	From the date of publication of this Tender in newspapers	
Last Date of Sale of Tender	15-03-2018 upto 2:00 PM	
Date of Submission of Tender	17-03-2018 upto 2:00 PM	
Date of Opening	17-03-2018 upto 3:00 PM	
Tender Opening Venue	Office of the Medical Superintendent, GMMMC Hospital Sukkur	

N.B.

- In case, the Chairman, Procurement Committee, is out of Headquarters or any of the members is not available or the Govt announces any public holiday, the tenders will be submitted and opened on the next working day by following all the same terms and conditions.
- All ...rs shall be included government taxes such as Professional Tax, GST and SRB, wherever applicable.
- Information regarding this NIT may also be downloaded from SPPRA website www.pprasindh.gov.pk & Sindh Government Website: www.sindh.gov.pk and the website of GMMMC Hospital.

MEDICAL SUPERINTENDENT
GMMMC HOSPITAL SUKKUR

INF-KRY No. 1081/18 ...ری کے خلاف ہیں۔ Say No to Corruption

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ایسٹ ڈالمیا یونٹ کے جوائنٹ سیکریٹری محمد شبیر عباسی رابطہ سیکریٹری رضوان خان سلیمانی، محمد ریاض ہزاروی، صابر تاج راجپوت، سردار نوشاد احمد، راجہ کالے خان سری والا نے اپنے مشترکہ بیان میں چیئرمین بلدیہ شرقی معید انور، میونسپل کمشنر اختر شیخ ای ای ایم اینڈ ڈی بیبن شیخ کی توجہ ڈالمیاں کی قدیم آبادی بھی پاڑہ نمبر 2 بلاک نمبر 10 میں مین سڑک پر اندھیرا ہوتا ہے بیمار ضعیف خواتین جاتے ہیں اندھیرے میں رہزنی کے ساتھ جان کا بھی خطرہ رہتا ہے۔ اسٹریٹ لائٹس لگانے سے جرائم میں کمی واقع ہو جاتی ہے۔ لہٰذا چیئرمین معید انور ذاتی دلچسپی لے کر بھی پاڑہ نمبر 2 زد بلاک نمبر 10 کی آبادی میں 27 پری اسٹریٹ لائٹ HRS-500N سون لائٹس لگانے کے احکامات صادر کریں یہ ثواب بھی صدقہ جاریہ بھی اور آپ کے فرائض منصبی میں شامل ہے۔

ٹیلی فون نمبر:071-9310213، فیکس:9310119

دفتر میڈیکل سپرنٹنڈنٹ
غلام محمد مہر میڈیکل کالج ہاسپٹل سکھر

312/2015/سکھر/NOMS/GMCHS مورخہ 15-2-2018

نوٹس طلبی ٹینڈر

میڈیکل سپرنٹنڈنٹ GMMMC ہاسپٹل سکھر کو دلچسپی رکھنے والے اہل بولی دہندگان سے جو جی ایم ایم سی ہاسپٹل سکھر کے لئے سندھ پروکیورمنٹ رولز 2010 (ترمیم شدہ 2017) کے تحت پلانٹ مشینری اور فکسچر کی فراہمی کے اہلیتی معیار پر پورا اترتے ہیں سے سربمہر پیشکش مطلوب ہیں۔ پیشکش ٹینڈر کھلنے کی تاریخ جیسا کہ 2:00 بجے سے پہلے تک جمع کرائے جاسکتے ہیں جو کہ سرعام پیشکش دہندگان یا ان کے مجاز نمائندے جو اس وقت 3:00 بجے دفتر میڈیکل سپرنٹنڈنٹ غلام محمد مہر میڈیکل کالج ہاسپٹل سکھر میں موجود ہوں کے کھولے جائیں گے۔ تمام پیشکشوں کے ساتھ کل پیشکش لاگت کا 2 فیصد کے مساوی پیشکش سیکورٹی بصورت پے آرڈر/ بینک گارنٹی لازمی منسلک ہونی چاہئے۔ چیئرمین پروکیورمنٹ کمیٹی سندھ پبلک پروکیورمنٹ رولز 2010 کے رولز 25 (ترمیم شدہ 2017) کے تحت کسی یا تمام پیشکشوں کو منسوخ/ قبول/ مسترد کرنے کا حق محفوظ رکھتی ہے۔ ٹینڈر / انکوائری / بڈنگ دستاویزات کا مکمل سیٹ دفتر میڈیکل سپرنٹنڈنٹ جی ایم ایم سی ہاسپٹل سکھر میں رجسٹرڈ فرم/ کمپنی اپنے لیٹر ہیڈ پر تحریری درخواست کے عوض درج ذیل فیس کی ادائیگی (ناقابل واپسی) کے عوض اخبارات میں اشتہارات کی اشاعت کے بعد خرید سکتے ہیں۔

اسٹور کی تفصیلات	پلانٹ، مشینری اور ایکوپمنٹ کی خریداری
ٹینڈر دستاویزات کی فروخت کی تاریخ	اخبارات میں ٹینڈر کی اشاعت کی تاریخ سے
ٹینڈر کے فروخت کی آخری تاریخ	15-3-2018 کو 2:00 بجے
ٹینڈر جمع کرانے کی تاریخ	17-3-2018 کو 2:00 بجے
کھلنے کی تاریخ	17-3-2018 کو 3:00 بجے
ٹینڈر کھلنے کی جگہ	دفتر میڈیکل سپرنٹنڈنٹ جی ایم ایم سی ہاسپٹل سکھر

این بی:

☆ اگر چیئرمین پروکیورمنٹ کمیٹی ہیڈ کوارٹر سے کسی بھی وجہ سے باہر ہوا یا کوئی ممبر دستیاب نہیں ہوا اگر حکومت کی طرف سے سرکاری تعطیل ہوئی تو ٹینڈرز دوسرے کام والے دن درج ذیل شرائط اور ضوابط کے مطابق جمع کرائے جائیں گے اور کھولے جائیں گے۔

☆ تمام نوٹس طلبی ٹینڈر میں سرکاری ٹیکسز بشمول پیشہ وارانہ ٹیکس، جی ایس ٹی، ایس آر ٹی اور دیگر اگر اطلاق ہوا تو شامل ہونے چاہئیں۔

☆ اس نوٹس طلبی ٹینڈر کی یاددہانی کیلئے SPPRA کی ویب سائٹ www.pprasindh.gov.pk اور سندھ گورنمنٹ کی ویب سائٹ www.sindh.gov.pk اور جی ایم ایم سی ہاسپٹل کی ویب سائٹ سے ڈاؤن لوڈ کئے جاسکتے ہیں۔

دستخط
میڈیکل سپرنٹنڈنٹ
جی ایم ایم سی ہاسپٹل سکھر

INF/KRY 1081/18

Intekhab 23-2-2018

OFFICE OF THE MEDICAL SUPERINTENDENT

GHULAM MUHAMMAD MAHAR MEDICAL COLLEGE HOSPITAL SUKKUR

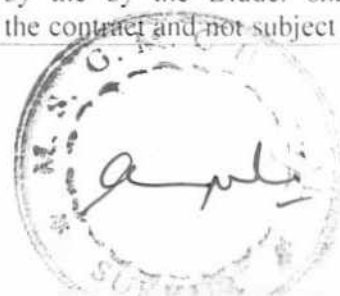
TENDER FOR PURCHASE OF MACHINERY/EQUIPMENT TO BE INSTALLED AT GHULAM MUHAMMAD MAHAR MEDICAL COLLEGE HOSPITAL SUKKUR

NON-ADP SCHEME DUE ON 29-03-2018

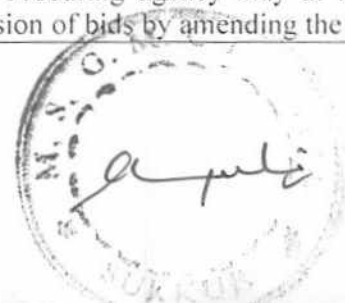
INSTRUCTION TO BIDDERS / PREPARATION OF BID

SCOPE	MEDICAL SUPERINTENDENT, GMMC HOSPITAL SUKKUR intend to Purchase **SUPPLY & INSTALLATION OF MEDICAL EQUIPMENT/INSTRUMENTS MACHINERY &General Items** through National Competitive Bidding.
1. Technical/ Financial Proposal	1.1 Technical and Financial proposal separately, i.e. single stage two envelope procedure. The envelope must contain on the top clearly written at corner for "TECHNICAL PROPOSAL" OR for "FINANCIAL PROPOSAL" in order to avoid any confusion. The tenders shall be submitted with all documents, drawing literature & catalogue (in equipment) in Technical proposal. The name of manufacturer or supplier should be affixed on the face of envelop a the left side. Moreover, financial envelops should contain financial bid each item separately.(Commercial offer must be quoted in each item/ each envelope)The envelopes shall then be sealed in an outer envelope. The inner and outer envelopes shall be addressed and marked to the Procuring agency at the address given in the BDS. Initially envelope marked as "**TECHNICAL PROPOSAL**" shall be retained In the custody of the procuring agency without being opened. 1.2 Tenders must be filled in with blue or black in k in the column provided or on separated letter head duly signed. 1.3 The tenders must be free from erasing, cutting and overwriting. In case of erasing, cutting and over writing, authorized person should sign & stamp it. 1.4 Conditional tenders will be ignored and will not be considered/entertained/accepted. 1.5 The rates of each item should be written in figures as well as in words. In case of discrepancy the price in words will be taken as authenticate and final. 1.6 **Original purchase receipt must been closed with the technical offer.**
2. Ernest Money	2.1 The bid security is required to protect the Procuring agency against the risk of Bidder's conduct, which would warrant the security's forfeiture The bid security shall be denominated in the currency of the of the bid. 2.2 Tender shall be accompanied by Earnest Money@2%of the value of stores quoted by them inform of Bank Guarantee /pay order/demand draft in the name of **MEDICAL SUPERINTENDENT GMMCH SUKKUR.** 2.3 Copy of earnest money (without amount) must be attached along with the technical bid and the original along with financial bid in case of disclosure of price or amount of Earnest Money in the technical bid, the bid will be rejected. 2.4 Bid security shall release to the unsuccessful bidders once the contract has been signed with the successful bidder or the validity period has expired. 2.5 The successful Bidder's bid security shall be discharged upon the Bidder signing the contract, and furnishing the performance security. 2.6 The bid security may be forfeited: a) if a Bidder withdraws its bid during the period of bid validity or b) In the case of a successful Bidder, if the bidder fails: to sign the contract in accordance or to furnish performance security within

	time.
3. Professional Documentation & Conditions	3.3 List of hospitals, name of department, contact numbers of the end users, in which the quoted equipment are installed by bidder who is participating in this tender must be attached. Copy of previous installation report in a reputed Government/Private [Teaching Hospitals/ repair certificate if any, of the similar quoted item from the end user should be attached along with the bid Sole agent certificate for the quoted items from the Manufacturer must be attached by the bidder. Certificate should be valid for three years from the date of issue which should be verifiable by concerned authority. 3.4 The bidder shall furnish General Sales Tax (GST) Registration Certificate of the firm failing which the offer will be ignored. In case the item is exempted from GST either documentary evidence or certificate from competent authority shall be attached with the offer. 3.5 The bidder shall furnish copy of valid Professional Tax Certificate, Income Tax Certificate; Last three years paid income tax Challan and proof of registration with Chamber of Commerce. 3.6 The equipment to be imported comply/certificate of CE/FDA/JIS standards certificate should be attached along with the offer. 3.7 Bidder should submit a fresh bank certificate/ statement showing strong financial capability of firm (Last Three Years). 3.8 Tendrer are required to furnish a detail of technical quotation on their letter head and specify the standard and optional items / accessories as required in the tender specification. Bidder should clearly mention make, model and country of origin of the quoted items. 3.9 No manufacturer shall authorize their distributor/agent/any firm or person to quote the same item which manufacturer quoted it-self in any tender. Failing which offer of the manufacturer will be considered and other shall be rejected.
4. Alternate Offer	Tendrer shall purchase separate tender document and furnish purchase receipt for each alternate offer in case they intend submit alternate offer without separate purchase receipt (original) are supposed to be rejected
5. Bid Validity	5.1 Bids shall remain valid for the period of 90 days after the date of bid opening prescribed by the Procuring agency. A bid valid for a shorter period shall be rejected by the Procuring agency as non responsive. 5.2 In exceptional circumstances, the Procuring agency may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The bid security shall also be suitable, extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will neither be permitted to modify its bid
6. Bid Prices	6.1 Price should be quoted **"FOR"** basis. FOR offer should be quoted on delivery to consignee's end **i.e Medical Superintendent, GMMMCH Sukkur** inclusive of all taxes, stamps, duties, levies, fees and installation and integration charges imposed specified in the schedule of Requirements. No separate payment shall be made of the incidental services. 6.2 The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total bid price of the goods it proposes to supply under the contract. 6.3 Prices quoted by the by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account, unless



	otherwise specified in the Bid Data Sheet.
7. Bid Currency	Prices Shall be quoted in Pak Rupees.
8. Bid Form	The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity, and prices.
9. Documents Establishing Bidder's Eligibility and Qualification	9.1 The Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted. a) that, in the case of a Bidder offering to supply goods under the contract which the bidder did not manufacture or otherwise produce, the bidder has been duly authorized by the good Manufacture or producer to supply the goods in the Islamic Republic of Pakistan. b) that the Bidder has the financial ,technical ,and production capability necessary to perform the contract; that the Bidders meets the qualification criteria listed in the Bid Data Sheet.
10. Documents Establishing Goods' Eligibility and Conformity to Bidding Documents	10.1The documents evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings, and Data, and shall consist of: (a) a detailed description of the essential technical and performance characteristics of the goods; (b) The Bidder shall note that standards for workmanship, material ,and equipment, as well as references to brand names or catalogue numbers designated by the Procuring agency in its Technical Specification are intended to be descriptive only and not restrictive :till stated otherwise in Technical Specifications or Bid Data Sheet .The Bidder may substitute alternative standards, brand names , and /or catalogue numbers in its bid , provided that demonstrates to the Procuring agency's satisfaction that the substitutions ensure substantial equivalence to those designated in the in the Technical Specifications
11. Format and Signing of Bid	11.1The Bidder shall prepare an original and the number of copies of the bid indicated in the Bid Data Sheet, clearly marking each **"ORIGINAL BID"** and **"COPY OF BID"** as appropriate. In the event of any discrepancy between them, the original shall govern. 11.2The original and the copy or copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid. 11.3Any interlineations, erasures, or overwriting shall be valid only if they are initialed by the person or persons signing the bid.
12. Submission of Bids and its Deadline	12.1 If the outer envelope is not sealed and marked as required, the Procuring agency shall assume no responsibility for the bid's misplacement or premature opening 12.2 Bids must be received by the Procuring agency at the address specified in BDS, not later than the time and date specified in Bid Data Sheet. 12.3 The Procuring agency may at its discretion extend the deadline for the submission of bids by amending the bidding documents, in such case all rights



	and obligations of the Procuring agency and bidders.
13. Late Submission of Bid	Any bid received by the Procuring agency after the deadline for submission of bids prescribes by the Procuring agency shall be rejected and returned unopened to the Bidder.
14. Modification and Withdrawal of Bids	14.1 The Bidder may not modify or withdraw its bid after the bid's submission, provided with consent of end user and procuring agency , including substitution or withdrawal of the bids, is received by the Procuring agency. 14.2 Bid may be modified after the deadline of bids as per end users demand and procurement agency. 14.3 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiry of the period of bid validity withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security.
15. Taxes and Duties	Supplier shall be entirely responsible for all taxes, duties (including stamp duty), license fees, etc., incurred until delivery of the contracted Goods to the Procuring agency.
16. Overriding effect of SPPRA RULES 2010 (Amd: 2013)	In case of conflict or primacy of interpretation the provisions of SPP Rules 2010 (amended 2013) shall have an overriding effect notwithstanding anything to the contrary contained in these bidding documents
17. Rights to reserve	Procurement Agency/Committee reserves the rights to reject any bid, which is otherwise sub standard and of low quality or to amend or reject bid/tender at any stage. Bid may be modified after the deadline of bids as per end users demand and procurement agency.
18. Liquidity Damage	If the Supplier fails to deliver the goods or perform the services within the time period(s) specified in the contract, the Purchaser shall, without prejudice to its other remedies under the contract deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.07 percent of the Contract Price for each day of delay until actual delivery or performance, up to a maximum deduction of 10% of the Contract Price. Once the maximum is reached, the purchaser may consider termination of the contract
19.1 Integrity Pack	Procurements exceeding Rs.10 million for goods and works Rs. 2.5 million for services shall be subject to an integrity pact as specified by regulations between the procuring agency and the suppliers or contractors or consultants.

EVALUATION CRITERIA

MANDATORY DOCUMENTS

S. No.	Bidders Eligibility Factor	Requirement	Document Required
1	Registration with Income Tax	Mandatory	Attach Copy of Active NTN certificate
2	Registration with Sales-Tax	Mandatory	Attach Copy Active GST registration Certificate
3	Relevant Experience Minimum of 5 years	Mandatory	Attach copies of Supply Orders with relevant completion certificate or Inspection Report
4	Financial Capacity	Mandatory Annually turnover of PKR. 60 Million for the past 1 year From 1st march 2017 to 28th February 2018	Attach supporting Bank Certificate of Company's Bank Account And bank statement showing end turnover of 60 Million
5	Agreement with all the terms & conditions	Mandatory Must unconditionally agree with all the instructions, terms & conditions specified in the bidding documents & contract agreement	Signature & company seal on every page of the bidding document.
6	Delivery time	Mandatory Must agree to serve the Contract within the stipulated time period	Completion time must be clearly specified in the Technical Bid
7	WEBOC ID	Mandatory This is mandatory for Electro Medical Items.	For imported items company must have to provide copy of WEBOC ID or . Submit Printed online page of ID

NOTE: All above documents are mandatory and bidder failing to submit any of above document treated as non-serious bidder and lead to disqualify his bid and will not consider for further process.

Read and Agreed by M/s_____.

Name _____.

Signature with Stamp_____.

19. DOCUMENTS CHECKLIST

PART II

Please review the following list of all possible documents to be enclosed with the technical proposals.

Sr#	Document Description	Yes	No	Page No.
1.	Tender Purchase Receipt (Original)			
2.	Bid Security (Pay Order/Bank Draft) (Original in Financial offer)			
3.	General & Special Conditions of Contract (Duly filled, Signed & Stamped by bidder each & every page)			
4.	Schedule of Requirements (dully filled, Signed with Stamp)			
5.	Technical Specifications (dully filled, Signed with Stamp)			
6.	Technical Proposal on Bidder's Letterhead			
Bidders Documents				
7.	Manufacturer's Authorization (as per sample form)			
8.	Undertaking (as per sample form)			
9.	Certificate (as per sample form)			
10.	Income Tax & GST Registration Professional Tax Certificate (Sindh)Certificates are mandatory, Bidder's FBR Status should be ACTIVE (For NTN and Sales Tax)			
11.	Valid PNRA registration certificate where applicable			
12.	Company Profile			
13.	Bank certificate/Statement with last three years turnover.			
14.	Income Tax Return (last two years)			
15.	Workshop for after sales services			
16.	Technical Team detail			
17.	The Bidder will ensure provide WEBOC ID of Bidder must be active for Electro Medical Items.			
Original Equipment Manufacturer (OEM or brand quoted)				
18.	CE / FDS / JIS			
19.	References of offered model or brand (in Pakistan preferable in Sindh)			

- Mandatory documents are mentioned in instruction to bidder
- All pages of bid except for un amended printed literature shall be initiated by the bidder

19.1 Bidder's details for notice purpose

Bidder Name	
Company	
Address	
Tel& Fax No.	
Contact Person & Cell No.	
Email Address	

OPENING AND EVALUATION OF BIDS PART II-C

21. Opening of Bids by the Procuring agency	21.1 The Procuring agency shall open all bids in the presence of bidder's representatives who choose to attend, at the time, on the date, and at the place specified in the Bid Data Sheet. The bidders' representatives who are present shall sign a register/attendance sheet evidencing their attendance. 21.2 The bidders' names, bid modifications or withdrawals, bid prices, discounts, and the presences or absence of requisite bid security and such other details as the Procuring agency, at its discretion, may consider appropriate, will be announced at the opening.
22. Clarification of Bids	22.1 During evaluation of the bids, the Procuring agency may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted.
23. Preliminary Examination	23.1 The Procuring agency shall examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. 23.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the correction of the errors, its bid will be rejected, and its bid security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail. 23.3 Prior to the detailed evaluation, the Procuring agency will determine the substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Procuring agency's determination of a bid's responsiveness is to be based on the contents of the bid itself. 23.4 If a bid is not substantially responsive, it will be rejected by the Procuring agency and may not subsequently be made responsive by the Bidder by correction of the nonconformity.
24. Evaluation & Comparison of Bids	24.1 The Procuring agency will evaluate and compare the bids which have been determined to be substantially responsive. 24.2 The Procuring agency's evaluation of a bid will be on delivery to consignee's end inclusive of all taxes, stamps, duties, levies, fees and installation and integration charges imposed till the delivery location and shall exclude any allowance for price adjustment during the period of execution of the contract.
25. Contacting the procuring agency	25.1 No Bidder shall contact the procuring agency on any matter relating to its bid, from the time of bid opening to the time the announcement of Bid Evaluation Report. If the Bidder wishes to bring additional information to the notice of the procuring agency, it should do so in writing. 25.2 Any effort by a Bidder to influence the Procuring agency in its decision on bid evaluation, bid comparison, or contract award may result in the rejection of the Bidder's bid.

26. Post – Qualification	26.1 In the absence of prequalification, the procuring agency may determine to its satisfaction whether that selected Bidder having submitted the lowest evaluation responsive bid is qualified to perform the contract satisfactorily. 26.2 The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Claus-7 as well as such other information as the Procuring agency deems necessary and appropriate. 26.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Procuring agency will proceed to the next lowest evaluated bid to perform satisfactorily.
27. Award Criteria	27.1 The Procuring agency will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.
28. PA Right to Accept any Bid and to Reject any or All Bids	28.1 Subject to relevant provisions of SPP Rules 2010 (Amended 2013), the Procuring agency reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award. 28.2 Pursuant to Rule 45 of SPP Rules 2010 (Amended 2013), Procuring agency shall hoist the evaluation report on Authority's web site within seven days prior to notify the award of contract.
29. Notification of Award	29.1 Prior to the expiration of the period of bid validity, the Procuring agency shall notify the successful Bidder in writing, that its bid has been accepted. 29.2 Upon the successful Bidder's furnishing of the performance security pursuant to Clause 31, the Procuring agency will promptly notify each unsuccessful Bidder and will discharge its bid security.
30. Signing of Contract	30.1 At the same time as the Procuring agency notifies the successful Bidder that its bid has been accepted, the Procuring agency will send the Bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties. 30.2 Within fourteen (14) days, or any other period specified in BDS, of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the Procuring agency.
31. Performance Security	31.1 Within seven **(07)** days, or any other period specified in BDS, of the receipt of notification of award from the Procuring agency, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the bidding documents, or in another form acceptable to the Procuring agency. 31.2 Failure of the successful Bidder to comply with the requirement of Bid data sheet Clause 30 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Procuring agency may make the award to the next lowest evaluated Bidder or call for new bids.

32. fraudulent practices or Used Equipment	32.1 Under no circumstances the bidder shall provide used/repaired/refurbished or defected medical equipment. If such case happened then, the firm concerned will be black listed and earnest money/security deposit will be forfeited. 32.2 The Government of Sindh requires that Procuring agency's (including beneficiaries of donor agencies' loans), as well as Bidders/Suppliers/Contractors under Government-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the SPPRA, in accordance with the SPP Act, 2009 and Rules made there under: (a) **"Corrupt and Fraudulent Practices"** means either one or any combination of the practices given below; (i) "**Coercive Practice**" means any impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence the actions of a party to achieve a wrongful gain or to cause a wrongful loss to another party; (ii) "**Collusive Practice**" means any arrangement between two or more parties to the procurement process or contract execution, designed to achieve with or without the knowledge of the procuring agency to establish prices at artificial, noncompetitive levels for any wrongful gain; (iii) **"Corrupt Practice"** means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the acts of another party for wrongful gain; (iv) "**Fraudulent Practice"** means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation; b) **Obstructive Practice"** means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract or deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements before investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or acts intended to materially impede the exercise of inspection and audit rights provided for under the Rules.

33. DEFINITIONS	33.1 In this Contract, the following terms shall be interpreted as indicated: a) "The Contract" means the agreement entered into between the Procuring agency and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein. b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations. c) "The Goods" means all of the equipment, machinery, and/or other materials, which the Supplier is required to supply to the Procuring agency under the Contract. d) "The Services" means those services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Supplier covered under the Contract. e) "GCC" means the General Conditions of Contract contained in this section. f) "SCC" means the Special Conditions of Contract. g) "The Procuring agency" means the Sindh Public Procurement Regulatory Authority (SPPRA), Government of Sindh. h) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract. i) "SPP Rules 2010" means the Sindh Public Procurement Rules 2010 (Amended 2013). j) "Day" means calendar day.
34. Standards	34.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods' country of origin. Such standards shall be the latest issued by the concerned institution.
35. Patent Rights	35.1 The Supplier shall indemnify the Procuring agency against all third- party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof in the Islamic Republic of Pakistan.
36. Performance Security	36.1 Within seven (07) days, or any other duration as specified in SCC, of receipt of the notification of Contract award, the successful Bidder shall furnish to the Procuring agency the performance security in the amount specified in SCC. 36.2 The proceeds of the performance security shall be payable to the Procuring agency as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract. 36.3 The performance security shall be denominated in the Pak rupees and shall be an unconditional bank guarantee, pay order, call deposit as, provided in the bidding documents or another form acceptable to the Procuring agency; 36.4 The performance security will be discharged by the Procuring agency and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in SCC.
37. Inspections and	37.1 The Procuring agency or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no

Tests	extra cost to the Procuring agency. The Procuring agency shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes. 37.2 Should any inspected or tested Goods fail to conform to the Specifications, the Procuring agency may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Procuring agency. 37.3 The Procuring agency's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the Manufacturer. 37.4 Nothing in GCC Clause 37 shall in any way release the Supplier from any warranty or other obligations under this Contract.
38. Packing	38.1The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage.
39. Warranty & Spare parts	39.10 years free service including warranty from the date of installation and further 02 years free service without parts. Additionally assurance for the availability of spare parts for at least 08 to 10 years may also be confirmed by the bidder 39.2The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Procuring agency's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination. 39.3If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, within a reasonable period, the Procuring agency may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense without prejudice to any other rights which the Procuring agency may have against the Supplier under the Contract 39.4The Supplier should provide any or all of the notifications, and information pertaining to spare parts manufactured or distributed by the Supplier 39.5Free installation along with all accessories including labor charges/demonstration at consignee end must be borne by the bidder. 39.6The supplier will be bound to train nominated technical personnel (inland/outland) to operate/ repair and maintain the supplied equipment 39.7If the **up time percentage** for the measurement period (04months) shall fall short of 95% the following formula will be applied to determine additional days in the warranty / services contract period. a. 100%-95% No Penalty b. 95%- 90% The warranty period will be extendedby2.0 times the number of days as extra downtime c. 90%- 80% The warranty period will be extendedby3.0 timesthenumberof daysas extradowntime 39.8 The firm will be bound to make arrangement for availability of qualified

	technical staff in hospital/ site for prompt execution/coordination of after sale service
40. Delivery and Documents	40.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping/ transportation and/or other documents to be furnished by the Supplier are specified in SCC.
41. Insurance	41.1 The Goods supplied under the Contract shall be delivered consignee's end under which risk is transferred to the Procuring agency after having been delivered; hence insurance coverage is Supplier's responsibility.
42. Transportation	42.1 The Supplier is required under the Contact to transport the Goods to a specified place of destination and shall be arranged by the Supplier, and related costs shall be deemed to have been included in the Contract Price.
43. Incidental Services	43.1 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC: (a) performance or supervision of on-site assembly and/or start-up of the supplied Goods; (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods; (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods; (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract;
44. Payment Method	44.1 The method and conditions of payment to be made to the Supplier under this Contract shall be specified in SCC. 44.2 The Supplier's request(s) for payment shall be made to the Procuring agency in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed, and upon fulfillment of other obligations stipulated in the Contract. 44.3 Payments shall be made promptly by the Procuring agency, but in no case later than thirty (30) days after submission of an invoice or claim by the Supplier. 44.4 The currency of payment is Pak. Rupees.
45. Prices	45. Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.
46. Contract Amendments	46.1 No variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.
47. Delays in the Supplier's Performance	47.1 Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the Procuring agency in the Schedule of Requirements. 47.2 If at any time during performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Procuring agency in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Procuring agency shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.

	47.3 Except as provided under **GCC Clause 48** a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages unless an extension of time is agreed upon pursuant to GCC Clause 47.2 without the application of liquidated damages.
48. Liquidated damages	48.1 Subject to GCC Clause 51, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Procuring agency shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Procuring agency may consider termination of the Contract pursuant to GCC Clause 49.
49. Termination for Default	49.1 The Procuring agency, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part: (a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring agency pursuant to GCC Clause 47; or (b) if the Supplier fails to perform any other obligation(s) under the Contract. (c) if the Supplier, in the judgment of the Procuring agency has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
50. Force Majeure	50.1 Notwithstanding the provisions of GCC Clauses 47, 48 and 49, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. 50.2 Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Procuring agency in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes. 50.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring agency in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring agency in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
51. Resolution of Disputes	51.1 Resolution of dispute shall be through Mechanism for Redressal of Grievances as provided in the rules or through Arbitration Act 1942.
52. Governing Language	52.2 The Contract shall be written in English language all correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.
53. Applicable Law	53.1 The Contract shall be interpreted in accordance with the SPP Rules 2010 (amended 2013).
54. Taxes and Duties	54.1 Supplier shall be entirely responsible for all taxes, duties (including stamp duty), license fees, etc., incurred until delivery of the contracted Goods to the Procuring

	agency.
55. Overriding effect of SPPRules 2010 (Amended 2013)	55.1In case of conflict or primacy of interpretation the provisions of SPP Rules 2010 (amended 2013) shall have an overriding effect not withstanding anything to the contrary contained in these bidding documents

Read and Agreed by M/s_____.

Name _____.

Signature with Stamp_____.

PART-IV

56. BID DATA SHEET

	Introduction
1	**Name of Procuring Agency:** Medical Superintendent , GMMMCH Sukkur
2	**Name of Contract. "Tender for Supply of & Installation of Medical Equipment/Instruments Machinery &GENERAL ITEMS"**
	Bid Price and Currency
3	Prices quoted by the Bidder shall be *"fixed" and in" Pak Rupees"*
	Preparation and Submission of Bids
4	*Selection Criteria / Responsiveness Criteria:* *1. The bidder should be sole agent/exclusive distributor of Manufacturer. Authorization for this tender will not be accepted.* *2. The bidder must have done at least Five (05) Contacts of similar nature. "Similar nature means Supply of equipment etc. (Please submit copy of PO/Contract Agreement/Notification of Award).* *3. The Bidder should not have been barred by any of Provincial or Federal Govt. Deptt., Agency, Organization or autonomous body or Private sector organization anywhere in Pakistan. (Submission of undertaking on 100/- legal stamp paper).* *4. The bidder must have turnover/sales exceeding 60 Million in PKR annually in any of last three years. (Submission of Audited Annual Reports or verifiable Letter or statement from the Bank.* *5. All the proposed products should be well known, well reputed brands and widely used for its quality, performance and reliability.* *6. Latest Income Tax Certificate (NTN), Valid GST Registration Certificate.* *7. Valid PNRA registration certificate (for x-ray items)* *8. Price offered for any item should be for the entire quantity demanded, partial quantity offers shall straight way be rejected.* **Note:** Bidder must provide necessary supporting documents as proof in respect of the selection criteria mentioned above.
5	**Amount of bid security.** 2% of Bid
6	**Bid validity period.** 90 days
6.1	**Bid validity** Clarification may be requested not later than **07 days** before the submission date For **Clarification of bid purposes** only, the Purchaser's address is: Attention: *Medical Superintendent, GMMMCH Sukkur* Address:
7	**Number of copies.** One original One copy
8	**Amount of Performance Guarantee of** @ 2% for Bid successful Bidder
9	**Deadline for bid submission.** 29-03-2018 at 12.00 NOON
10	**Bid Evaluation:** Lowest as best quality evaluated bid

Part-V

57. Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

57.1 Definitions (GCC Clause 33)

GCC 33 (g)—The Procuring Agency is: Office of the Medical Superintendent, Ghulam Muhammad Mahar Medical College Hospital, Sukkur

57.2 Performance Security (GCC Clause 36)

GCC36—The amount of performance security, as a percentage of the Contract Price, shall be: 5%.

57.3 Inspections and Tests (GCC Clause 37)

Representative of Procuring Agency or his nominee shall inspect the procured good and ensure that it meets the tender specifications before its acceptance

57.4 Delivery and Documents (GCC Clause 40)

GCC 42—Supplier shall supply and install the goods within 30 Days after signing the contract and shall submit the following.

(i) Supplier's invoice showing Goods' description, quantity, unit price, and total amount;
(ii) Packing List identifying the contents of Supply;
(iii) Delivery note.
(iv) Warranty and guarantee certificate;

57.5 Warranty (GCC Clause 39)

The equipment shall bear Standard warranty (with free parts & labor) from the date of installation / acceptance. Upon expiration of warranty, Purchaser at its option may enter into a Service Level Maintenance Agreement upon expiry of the warranty period in accordance with terms embodied in Appendix-A hereto

57.6 Payment (GCC Clause 44)

Hundred percent (100%) of the Contract Price shall be paid upon delivery, and satisfactory Installation, integration and testing of the products at the Project site (s), subject to the production of installation and Operational Acceptance certificates duly signed by authorized Representative.

57.7 Liquidated Damages (GCC Clause 48)

If the Supplier fails to deliver the goods or perform the services within the time period(s) specified in the contract, the Purchaser shall, without prejudice to its other remedies under the contract deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.07 percent of the Contract Price for each day of delay until actual delivery or performance, up to a maximum deduction of 10% of the Contract Price. Once the maximum is reached, the purchaser may consider termination of the contract.

57.8 Resolution of Disputes (GCC Clause 51)

In the case of a dispute between the Procuring agency and the Supplier, the dispute shall be referred to the dispute resolution mechanism as defined in rule 31, 32 and 34 of the (SPPRA 2010) Amended 2013

57.9 Applicable Law (GCC Clause 53)

GCC 29.1 Contract shall be interpreted in accordance with the Sindh Public Procurement law of Sindh.

Part-VI

58. SCHEDULE OF REQUIREMENTS

The delivery schedule hereafter expressed the date of delivery required.

S.No.	Product	Items Description	Quantity	Required Delivery Schedule from the Date of Contract Award	Location
1.	Tender for Supply of & Installation of Medical Equipment/Instruments Machinery &General Items				

Note: Specifications of above items are attached below.

59. SAMPLE FORM

TECHNICAL SPECIFICATIONS			
QUANTITY			
Bidder's response column must be filled either YES or NO. Bidders must attach Technical literature for item quoted			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
Items	Specifications	Bidder Compliance	
		Yes/No	If "No" indicate your Offer
Make	Specify		
Model	Specify		
Manufacturers literature	Specify		
Type	Specify		
& Other related specification			

Form-I

59.1 Letter of Acceptance

Date: _____

To:

Medical Superintendent

GMMC Hospital Sukkur

Dear Sir:

Having examined the bidding documents, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver the required item in conformity with the said bidding documents for the sum of *[total bid amount in words and figures]* or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we will obtain the guarantee of a bank in a sum equivalent to Five (5) percent of the Contract Price/Pay order for the due performance of the Contract, in the form prescribed by the Purchaser.

We agree to abide by this Bid for a period of 15days from the date fixed for Bid opening under Clause 5 of the Instructions to Bidders, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this _____ day of _____ 2017_____.

_____ _____

[signature] *[in the capacity of]*

Duly authorized to sign Bid for and on behalf of _____

Form-II

59.2. Price Schedule in Pak. Rupees

Name of Bidder _____ NIT Number _____ Page of _____

1	2	3	4	5		6	7
Item Name	Description	Country of origin	Quantity	Unit price Delivery Duty paid (DDP) / All Taxes		Total	Remarks (if any)
				Words	Figure		

Total Bid amount in words: _____

Total Bid amount in figure: _____

Signature of Bidder _____

Note:

(i) In case of discrepancy between unit price and total, the unit price shall prevail.

(ii) The unit and total prices Delivered at main Medical Store GMMMC Hospital , Sukkur should include the price of incidental services. No separate payment shall be made for the incidental services.

Form-III

59.3. Experience of Similar Supply and Installation

S. No	Assignment Description	Name /Contact Details of Client	Cost	Start Date	End Date	Remarks

(On stamp of 100 with 0.3% stamp duty) Form-IV

59.4. Contract Form

THIS AGREEMENT made the _____ day of _____ 20_____ between *MS GMMMC Hospital, Sukkur.* (hereinafter called "the Procuring agency") of the one part and *[name of Supplier]* of *[city and country of Supplier]* (hereinafter called "the Supplier") of the other part:

WHEREAS the Procuring agency invited bids for certain goods and ancillary services, viz., **Tender for Supply & Installation of Medical Equipment/Instruments Machinery &General Items 2017-18**. And has accepted a bid by the Supplier for the supply of those goods and services in the sum of *[contract price in words and figures]* (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSED AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

(a) the Bid Form and the Price Schedule submitted by the Bidder;
(b) the Schedule of Requirements;
(c) the Technical Specifications.
(d) the General Conditions of Contract;
(e) the Special Conditions of Contract; and
(f) the Procuring agency's Notification of Award.

3. In consideration of the payments to be made by the Procuring agency to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Procuring agency to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract

4. The Procuring agency hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

INWITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by _____ the _____ (for the Procuring agency)

Signed, sealed, delivered by _____ the _____ (for the Supplier)

59.6. Manufacturer's Authorization Form

To:

Medical Superintendent

GMMMC Hospital Sukkur

WHEREAS *[name of the Manufacturer]* who are established and reputable manufacturers of *[name and/or description of the goods]* having factories at *[address of factory]*

Do hereby authorize *[name and address of Agent]* to submit a bid, and subsequently sign the Contract with you against NIT No. *[reference of the Invitation to Bid]* for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per Clause 44 of the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids.

[signature for and on behalf of Manufacturer]

Note: This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.

60. PURCHASER'S RIGHT TO VARY QUANTITIES AT TIME OF AWARD.

The purchaser reserve the right to increase/decrease or delete the quantities of goods etc at the time of award of contract and also reserve the right to enhance the quantity goods and services originally specified in the schedule of requirements without any change in unit price of other terms and conditions of goods at any time during contract period.

61. UNDERTAKING

61.1 That I/We agree whether our tender accepted for total, partial or any single item. I/We also agreed to supply and accept the said item at the rates for the supply of contracted quantity within the stipulated period shown in the contract.

61.2 I/ We understand and confirm the refund of cost different if the same good is/was supplied at lower rates to any other Government/Semi Government Institution in the Province in same fiscal year.

61.3 I/ we undertake that: that If any of the information submitted in accordance to this tender Enquiry found in correct our contract may be cancelled at any stage on our cost and risk.

62. CERTIFICATE

We guarantee to supply the stores exactly in accordance with the requirement specified in the invitation to this tender

Signature& Stamp of Contractor_____

Name_____

Designation_____

Address_____

ITEM NO. 01

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	O.T TABLES FOR GYNE, UROLOGY & GENERAL SURGERY	Qty	03

Radiolucent tabletop.
Built-in X-ray Cassette Channels
Table length 2100mm
Table width 500 mm or more with rails.
Table Height (min) 690 mm to (max) 1040 mm
Lateral tilt - 20 / +20 degree or more
Trendelenburg-25/+25° maximum from horizontal
Reverse Trendelenburg 25° maximum from horizontal
Back rest adjustment up 80°/+12° max
Leg plate adjustment up 10°/100°/100° maximum.
Flex / Reflex 192°/100°
Sliding Table Top Upto310mm
Auto Leveling
Spread of split leg plates 90 degree.
Manual Head plate adjustment -90 / +90 degree.
Patient Weight capacity 200kg or more.
Central Break
Kidney Bridge 120mm height
Manual Over Ride
Complete with : Anesthesia Screen, Arm Boards ,lithotomy pole, drain pen, Basic Straps , Safety Clark Sockets
Complete High Quality S.S Base
Battery backup Up to 4Hrs
OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 02

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	SHOE WRAPPING MACHINE FOR GYNE, UROLOGY & GENERAL SURGERY	Qty	03

Capacity 1000pcs or more
Life 300,000 time or more
Standby time ≤ 80w
Preheating time ≤ 120s
ABS Material
Additional 20 rolls of wrapping
OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 03

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	O.T LIGHT- DOUBLE DOOM SURGICAL LIGHT WITH BATTERY + CAMERA + MONITOR & CAMERA SYSTEM WITH COMPLETE INSTALLATION FOR GYNE, UROLOGY & GENERAL SURGERY	Qty	03

Note : OT LIGHT & CAMERA SYSTEM SHOULD BE QUOTED SEPARATELY

LIGHT -1

- Dimension Cupola: 700mm
- Light Intensity : 160,000 LUX at 1 meter

LIGHT -2

- Dimension Cupola: 500mm
- Light Intensity : 90,000 LUX at 1 meter
  - Color Temp: Adjustable from 3500 to 5000K
  - Color rendering Index: ≥ 93
  - Diameter of light spot: 120-350 MM
  - Illumination Depth: 700-1500 MM
  - LED Service Life: 50000 Hours
  - Control Via LCD
  - Battery Backup: ≥ 2 Hours

CAMERA:

- Resolution: ≥ 200 Megapixel 920 x 1080
- Communication Mode: RS232
- Communication Protocol: HITACHI/SONY/VISCA or Equivalent
- Connector: LVCMOS-36PFPC
- Compatibility: 110/LVDS/30P
- Sensor Type: 1/2.9" CMOS
- Scan Mode: Progressive Scan
- Day and night system: Color/Black and white/Automatic
- Minimum Illumination: Color 0.1 Lux, Black and white: 0.01LUX
- Exposure Mode : A/M
- White Balance: Automatic/Indoor/Manual
- Focus Mode: A/M
- Gain Control: A/M
- Picture Effect: Automatic/Color/Black and white/Negative

Electronic Amplification

- Back Light Compensation: On/OFF

Image Freeze:

- Mirroring Function: Support (Horizontal Mirror + Vertical Mirror)

- Image Rollovers: Support

Generic Specification:

- Dimension: 56(W) x 56 (H) x 110 (L) MM
- Work Temperature And Humidity: -10C ~ 50C, 10% RH ~ 60%
- Storage Temperature and Humidity: -20C ~ 60C, 10%RH ~ 80%RH
- Synchronization Mode: Inter-Sync
- Video Output: Digital Signal
- SNR: ≥ 50DB (AGC OFF)

LENS

:

- IRCUT : IRCUT Double Filter Automatic Switching
- Automatic Diaphragm: Support
- Optical Lenses : 10X, F=5MM
- Field Angle : H: 47 (W) ~ 5.3 (T), V : 35.6 (W) ~ 3.96 (T)

Blank Screen:

- Wide Dynamic : D-WDR
- DNR : 2D-DNR
- Electronic Shutter : 1/30S~1/10,000S

Control Ratio : Adjustable
Anti-Fog Function : Support
Marginal : Support

LCD Monitor

Screen Size : ≥20.5"
Display Area : 475.2mm (W) x 267.3mm(H)
Max Resolution : 1920 x 1080
Display Color : 16.7 M
Pixel Pitch : 0.2475 (H) x .2475 (V)
Luminance : 300 cd / m2
Viewing Angle : 85/85/75/65
Response Time : ≤ 9MS
Field Frequency : 50Hz, 60Hz, 70Hz

OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
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ITEM NO. 04

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ANESTHESIA MACHINE WITH INTEGRATED VENTILATOR AND VAPORIZER FOR GYNE, UROLOGY & GENERAL SURGERY	Qty	03
Standard/Cascade flow tubes. -Cascade flow tubes with with electronic flow display providing numeric representation of gas flow -Virtual flow display (VFD) numeric and graphic -Virtual flow display also provides touch screen control of back lighting			

-03 Gas (O2 / N20 / Air) with ventilator Comprising of:-
Gas (Oxygen / N2O / Air)
Two Vaporisers Mounting
03 Gas Rotameter (O2 + N20 + Air)
Mechanical Anti – Hypoxic Device.
Non – inter changeable pipeline inlets
Pipeline & Cylinder gauges for O2 + N2O+ Air alongwith hoses.
Pin Index cylinder yokes.
Gas Outlet and O2 flush control.
02 Auxiliary 02 power outlets.
Lockable castors.
Monitors Shelf.
Impact resistant & easy to clean frame.
Stainless steel work surface.
Absorber support arm.
03 Gas flowmeter for O2 + N2O + Air.
Sigma Delta Sevoflurane Vaporizer.
Flow and Temperature compensated (Service Free)
Base lockable 6" Drawer unit.
Main power outlet 220 / 240 Vac (IEC X 4)
Writing Shelf / Platform.
Sharp holder.
High suction Controller with receiver jar of
Ltrs complete with connections and fittings.
SPA Carbon Dioxide Absorber with Bag
Vent and By Pass complete with detachable
The system must have built in heater to control moisturizer
Electronic Anesthesia Ventilator MODEL NO: AVS
Inch Large Colour Touch Screen Anesthesia Ventilator
With Built – in Oxygen Monitor,
Ultra – accurate Spirometry
With advance Ventilation (SIMV,SMMV and PSV)
Combines sophistication and ease of use,
Volume and Pressure Ventilation plus SMMV,SIMV,PSV and PEEP
Single / dual waveform display
High quality , multi-option product with flexible specification
Integrated Oxygen Monitor and spirometry
Inverse I:E Ratio capability
Electronic PEEP
Autoclavable Latex free bellows
Oxygen or Air drive gas
Battery Back up
Magills Breathing Circuit
Tidal Volume from 5ml to 1600ml.
Should have 30 minute battery backup

Gas Agent monitoring (Agent Analyzer) and Ende tidal CO2 (EtCO2) monitoring of Same Brand should be quoted as Option.

OR EQUIVALENT
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ITEM NO. 05

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	AIR PURIFIER	Qty	05

Integrated 7" Touch Screen
Multi-functions control panel with LCD touch screen.
-Plug & Play system
- Bactericidal, veridical, fungicidal (including spores) actions and molecular decontamination
Decontamination kinetics CP10(particles 0.5µ)
-Bacteriological class M5/B5
-Particular class ISO 8 / ISO 7 / ISO 6
- microbiological reduction: up to 99.999% in a single pass
- very low sound level: 42 dBA at 900 m3/h
-Device capable of running 24/24hrs, 7/7 days
-Air flow speed adjustable up to 1200 m3/h
-Mobile
-Easy to move by a single person

TECHNICAL CHARATISTICS

Air flow	300 -1200 m3/h (with constant air flow regulation)
Air supply	Via plenum
Mobility	4 wheel
Control panel	Multi-function touch screen
Dimension (LxlxH)	740 x 500 x1550 mm
Weight	100 kg
Air intake filtration	G4 + f7 (low pressure drop filter made of polypropylene)
Air supply filtration	H14 (low pressure drop filter made of polypropylene) – single or double stage
Photo catalysis module	Photo catalysis lamp
Probe VOC, temperature, humidity	Probe E4000 at air intake
Particular Probe	Probe P4000 at air supply
Pressure probe	air intake, air supply , fan
Remote control	touch pad 7"WiFI (optional)
Internal structure	"double skin" galvanized steel panels
External structure	Thermoformed panels
Electrical power	120 -230 V/ 50-60 Hz
Interface language	French / English / Spanish / German / Chinese
Power consumption	450 W

Air flow (day /night/ auto/ manual) in m3/h
Humidity
Temperature
Level of VOCs
Particulate concentration
Alarms on all points (probes, filters, fan...)
Maintenance menu (date of filters changing, or other type of maintenance operation)

Secured information with access code
OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 06

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	BABY INCUBATOR	Qty	06

CONTROL MODULE

Temperature
Manual (air)
Servo controlled (newborn)
Humidity
Passive
Servo-controlled
Removable water reservoir
Fixed water reservoir
Oxygen
Passive

CONTROL MODULE

Control module panel
LCD display (alphanumeric)
Skin temperature sensor (central)
Key board blocking
Heating indicator
Language selection (English / Spanish / Portuguese)
Removable

BABY COMPARTMENT

Baby Compartment
Transparent acrylic (non-toxic and self-extinguishable)
Front door for intensive care
Five oval polycarbonate portholes
One round iris port
Four holes for entrance of sensors and tubes (optional back door)
Opening for nebulizer

BED

Radiolucent plastic structure
Displaceable: the bed may be displace out of the dome, making it easier for access to the patient
Trendelenburg and proculive position high and low horizontal

ACCESSORIES

Double wall

ACCESSORIES

Nebulizer	hood for oxygen-therapy	big drawer
Assistant sockets	monitor support	disinfection tank
Breathing circuit support	adjustable serum support JV pole	assistant temperature sensor
Led phototherapy	small serum support-fixed JV pole	Gel Mattress
Dome with front and back access cap	Electric height adjustment system	Observation lamp
Manual re-animator	System for continuous tiling of the bed	
Y-type oximetry sensor	Double Drawer	

AUDIOVISUAL ALARM

Operation supervision

Temperature

Humidity

MECHANIC SPECIFICAITONS

Carbon-steel external box with anti-ferruginous treatment

Internal box in non-ferrous material

Dimensions without accessories (height X width X length (cm))

Power requirements

Voltage	110/220 Vac (Automatic selection)
Frequency	50/60Hz
Power	V1 380VA – V2/V3.700VA
Protection fuses (F1/F2)	V1: 3A V2/V3: 10A

Control Modules

	Temp air mode	Temp NB mode
Display range	0°C to 50°C	0°C to 50°C
Display resolution	0.1°C	0.1°C
Accuracy	±0.5°C	±0.3°C

Oxygen servo control

Display resolution	1%
O_2display range	0 to 99 %
O_2controlrange	21 to 65%

General specifications

Heating element	Stainless steel heater
Air temperature control mode	20°C to 39°C

NB temperature Control	20°C to 38°C	
Control Modules Humidity		Weight
20 to 100%	0 to 9.999Kg	
1%	1g	
±5%	±5g	

OR EQUIVALENT

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ITEM NO. 07

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PEADS VENTILATOR	Qty	05

Parameters

Monitored parameters
Times constant
Expiratory
I:e
Ti/ttot
Peak inspiratory floe:
(distal&proximal)
Expiratory tidal volume:
(Distal & proximal)
Minute Volume:
(Distal & Proximal)
Compressible volume
FiO_2
Leakage
Respiratory frequency
Peak pressure
Mean pressure
Base pressure (peep)
Inspiratory time
Expiratory time
Tendencies
Alarms log
Inspiratory resistance
Expiratory resistance

PROGRAMMABLE PARAMETERS

FiO_2

Flow wave form:

Square

Sinusoidal

Ascending

Descending

50% descending

Rise time

Inspiratory time

Respiratory frequency

Tidal volume

Pressure control

Pressures support

Peep

Sensibility

Pressure / flow

Apnea time

Inspiratory pause

Sigh

Expiratory sensibility

LUNG MECHANICS

Auto peep

Dynamics compliance

Static compliance

Slow vital capacity

PO.1

Tobin index

Stress index

AUXILIARY FUNCTION

Nebulizer

100% Oxygen

Manual inspiratory Trigger

TGI

ALARMS

Prgrammable

Maximum pressure

Minimum pressure

Max: expired minute volume

Min: expired minute volume

Maximum expired TV

Minimum Expired Tv

Max. respiratory frequency

Apnea

PEEP

FiO_2

AUTOMATIC

Interrupted Cycle

Inverted I:E Ratio

POWER FAILURE

Low Gas supply pressure

Low Battery

Safety system

Internal battery

Automatic gasses compensation

Automatic opening of the pressure regulator values

Automatic notification of the hours of use without locking the equipment

Possibility of operating without the expiratory flow sensor or without the O_2 cell.

OPTIONALS

Volumetric capnography

Inspired CO_2

$ETCO_2$

Heart rate

SpO_2

SpO_2 / FiO_2

OR EQUIVALENT

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ITEM NO. 08

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	SUCTION MACHINE	**Qty**	**20**

Two 2500 ml Autoclavble PC collection jar with over

Flow valve system

5 caster stand with brakes

Antibacterial and hydrophobic filter

1 Vacuum indicator (kPa and bar)

1 Vacuum regulator

Silicone autoclavable tubes

Motor	Oiless and maintenance-free piston pump
Power Feeding	230V-50 Hz
ISO 10079-1Classification	HIGH VACUUM / HIGH FLOW
Max free air flow	40 l/min

rate	
Max Vacuum (adjustable)	-0.80 Bar -80 kPa -600 mmHg
Noise Level	61,5 Db
Power consumption	110 VA
Fuse	1 x F 4 A 250 V
Duty cycle	Non-stop operation
Weight	6,5 Kg
Size	32x99x30 cm

OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 09

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DEFIBRILLATOR	Qty	05

- 360 J energy, Biphasic Waveform Technology
- 7" color graphic TFT LCD display or better.
- Built-in standard 12-lead ECG
- Synchronous or asynchronous mode
- Semi-automatic (AED) or manual control
- Operation from paddles
- Short charging time less than 5 sec or better
- Charging time for fast action start from 2.7 secs to 200 J , 4.5 secs to 360 J
- Alarm functions
- Should have 3-channel high-resolution recorder or better.
- Should have **Pacemaker with** Mode Demand (VVI), Fixed Rate (VVO), Type Transthoracic non-invasive, Waveform Rectilinear, constant current
- Pulse Width 40 msec, Current Amplitude 0 and 20..200 mA, 1 mA resolution
- Rate 30..200 ppm, 1 ppm resolution
- Patient Impedance Range 0..1000 ohms with indicator
- Should have Optional upgradeable for ETCO2 , SpO2, NIBP
- Should have available option any time upgradeable for electrodes for internal defibrillation.
- Battery Capacity More than 5 hours continuous monitoring or 200 shocks at 200J Indicator

5-stage indicator on screen and LED indicator when turned off, Must be Charge time Less than 2 hours for full charge.

- Report Browser Software On PC, from exported USB data

OR EQUIVALENT

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ITEM NO. 10

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ULTRASOUND MACHINE	Qty	01

DIGITAL GENERAL PURPOSE ULTRASOUND MACHINE (PORTABLE)

RADIOLOGY DEPT.

Digital Ultrasound scanner with digital beam former System should be capable to handle multi frequency probes from 3.0 MHz to 12.0 MHz or above.
Display MODES: B, B/B, B/Z , B/M, M
Multi frequency 2 .8, 3.5 up to 5 MHz Convex Probe

Modes: B.M and combination thereof.
B/Z mode.
Image adjustments :
a) B-gain, M-gain 37 to 100db
b) Dynamic Range 36db to 94db
c) γ Correction 5 types (max 10.)
d) sweep speed 5 steps
A. Mode: indicate the intensity of echo signal by easy operation.
Gray scale: 256
Sensitivity time gain: 8-12 steps
Depth: 24 cm or more
Focusing system: 3 steps and dynamic
Adjustable acoustic power (20% to 100%)
Keyboard: Alpha numeric with track ball
Tissue Harmonics: Tissue Harmonic imaging
Cine memory of 64 frames minimum up to 255 frames
Image storage with review facility. USB Port for data transfer
Post processing: Image inversion, edge/echo enhancement correlation / persistence/Dynamic range/Gamma Curve.
Image magnification 4x or more in real time.
Monitor: 12" SVGA Color LCD /TFT
Two probe connectors active or more
Measurements package: Abdominal, Obs , Nt and AFI
Net Wright 11 Kg
Local made mobile fiber top trolley
Accessories:
1. Thermal Printer 256-Gray scale
2. Compatible UPS
3. 50 High Density Rolls.

Optional :
Multi-frequency 5.0,7.5 up to 9 MHZ Endo- cavity Probe

ORIGIN: UK, WESTERN EUROPE, JAPAN/OR EQUIVALENT

ITEM NO. 11

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DIGITAL HIGH END COLOR DOPPLER SYSTEM WITH SHEARWAVE ELASTOGRAPHY AND STRAIN ELASTOGRAPHY	Qty	01

1- Top of the latest color Doppler with more than 1,500,000 receiving / processing channels. Fully digital beam former having 2D/M-Mode and Doppler facilities, (PW, hpra, & color flow imaging) with a high resolution imaging Doppler single quality. Having dicom compatibility and 4D imaging with color flow in convex probe, linear probe and endocavity probe. Machine should be upgradeabe to cw.

B- MODE SPECIFICATION:

A) Sector Scan angle variable in four steps.
B) Viewing depth: 40CM minimum (Both in B& W and color)
C) Frame rate: 1080 F/sec or more.
D) Built in cone loop with ability to vary reverse and slow motion of display; internal memory 512 MB or more.
E) Real time and freeze image magnification at least 8x or more with panning for real, freeze and memorized images.

2. M- MODE SPECIFICATION:

A) Magnification: X2 or More.
B) Sweep speed: slow, Medium, Fast.
C) Color Display

3. D- MODE SPECIFICATION:

A) Pulse- wave Doppler measurable velocity Range.
B) HPRF Doppler.
C) **CONTINUOS-WAVE DOPPLER (OPTIONAL):**
-Measurable velocity rabge: steerable.
-Must have Doppler Beam Streering and BI-Directional Stereo-Audio.
D) Colorized spectrum display.
E) Automatic Baseline and velocity range control.
F) Live measurement for Doppler spectrum.

4. COLOR DOPPLER MODE SPECIFICATIONS:

A) -CW (optional) and PW Doppler Must be continuous Steerable in the color blood flow image with mode in real time.
B) - 2D Image with color, CW (Optional) / PW Doppler.
C) -Windows Based System for easy usage with programmable control panel Keys.
D) -Tissue Harmonic Imaging with 4 thi or more frequency.
E) -Power Doppler.
F) -Triplex mode for simultaneous display of color B/M and D-Mode Displays\
G) -Maximum Detectable velocity range;
H) PWD= 1800CM or more, CWD=2100CM or more
I) -Lowest detectable velocity range; 0.03 CM/s for PWD and 3.2 cm/s for CWD

J) -Sample volume 1-20MM
K) -System dynamic range 300 dB or more.
L) -Independent steering of color box and linear beam +30.

5. **MEASUREMENT PACKAGE:**
To provide comprehensive software package for Measurement of Distance, Circumference, Area, time, depth, velocity, frequency, heart rate, volumes, Nuchal thickness measurement software to be provide as standard.

6. **SYSTEM COMPLETE WITH FOLLOWING FACILITIES AND ACCESSORIES**

A) -21-Inches Minimum TFT/LED color monitor, with resolution 1280 x 1024 pixels Minimum.
B) -Foot-Switch
C) Minimum 4 Transducer connector for transthorasic probes.
D) -DVD/CD Drive for image storage to be built-in to the system.
E) -750GB or more hard disk to be built-in to the system.
F) -Built in dicom compatibility.
G) -Touch command screen control at least 10-inches color LCD/TFT.
H) –Full Dicom (Upgradable)

7. **UPGRADEABILITY:**
-System software must be upgradeable.

8. **STANDARD PROBES :**

A) -2-6 MHZ Multi-frequency Single crystal convex probe for B/M/CDI/PW and shear wave elastography (FDA APPROVED)
B) -5-11 MHZ multi-frequency linear probe for vascular studies.
C) -7-14 MHZ multi- frequency linear probe for B/M/CDI/PW for breast imaging strain elastography and shearwave elastography.
D) -4-9 MHZ multi-frequency multi-frequency intracavity prpbe for prostate.

9. **STANDARD RECORDING DEVICES:**

A) –Thermal paper prnter with fifty rolls of paper (Black & White).
B) –UPS online with 30 minutes back up time for the system (Emerson, APC, Riello, G.E.)
10. Needle tip enhancement software for biopsy needle visualization
11. Tissue Doppler imaging mode.
12. Tissue harmonic imaging without contrast with 4 harmonic frequencies.
13. Pules inversion / differential tissue harmonic imaging to enhance effective wide band frequency range to provide simultaneously spatial resolution, contrast resolution and increased penetration using two transmission pulses at different frequencies simultaneously and reception at harmonic as well as differential component.
14. Auto Image optimization / quick scan imaging for automatic STC / GAIN and Doppler spectrum Adjustment with optimal image quality by using one touch operation.
15. B-Flow / dynamic flow imaging / E-flow.
16. Trapezoid imaging / virtual convex imaging with linear probe.
17. Compound / Aplipure imaging for both frequency compounding and spatial compounding in B/W and color mode.
18. Panoramic / siescape / logic view imaging with measurements.
19. N-Sight / Adaptive suppression / precision imaging / cross beam to enhance B-mode imaging detailed in layers and bound aries and sharpened outlines of the lesions and reduce cluttering.
20. B-flow with color and xdclear -2/micro CPA/Superb MICRO Vascular imaging with fusion 3D color imaging to clearly show blood flow in tiny vessels liver capsula gall bladder wall ETC without using 4D volume probe.
21. Dedicated software to visualize micro calcification in breas imaging.
22. Shearwave Elastography with quantification and adjustable area based minimum 2x3 CM display for body organs specially liver with convex & linear probes to visualize tissue stiffness by generating images through shear wave propagation, speed and elasticity modes (shearwave should be FDA

approved). 3D Elastography also required.

23. Live strain rate elastography with quantification for body organs speaially breast to visualize lesions
24. Contrast Harmonic imaging upgradable
25. Fusion imaging of CT/MRI 3D Volume data to synchronize with ultrasound imaging complete with hardware & software upgradable.
26. System input reqirement :220v-240V, 50-60HZ
27. Upgradable: system should be upgradable to 2D

G) High resolution imaging doppler signal quality.
H) Having dicom compatibility
I) Upgradeable to strain ELASTOGRAPHY, and 4d imaging on convex and ENDOCAVITY probe.

B-MODE SPECIFICATION :

a. Sector scan angle variable in four steps.
b. Viewing depth: 40cm or more (both in B&W and color).
c. Built in cine loop with ability to vary reverse and slow motion of display; internal memory 300mb.
d. Real time and freeze image magnification at least 25x or more with panning for real, freeze.
e. Frame rate: 500 frames minimum

M-MODE SPECIFICATION :

- Sweep speed: slow, medium, fast.
- Color display of m-mode.

D-MODE SPECIFICATION :

- Pulse-wave doppler measurable velocity range.
- Hprf doppler.
- Colorized spectrum display.
- Automatic baseline and velocity range control.
- Live measurements for doppler spectrum.
- Sample gate size: 1 – 20.
- Doppler prf range:
  - Pwd: 0.3khz to 52.0 khz
  - Cwd (option): 1.4khz to 52.0 khz
- Maximum detectable velocity range:
  - Pwd: 1850cm/s
  - Cwd (option) : 2200cm/s
- MINIMUM DETECTABLE VELOCITY RANGE:
  - Pwd: 0.03cm/s
  - Cwd (option): 3.2cm/s

COLOR DOPPLER MODE SPECIFICATIONS :

- Pw doppler must be continuous steerable in the color blood flow image mode in real time.
- 2d image with color, cw (option) wand pw doppler.
- Windows based system for easy usage with programmable control panel keys.
- Tissue harmonic imaging with 4th i frequencies.
- Power doppler.

- Triplex mode for simultaneous display of color b/m and d-mode displays.
- 260 db system dynamic range or more.
- Independent steering of b and color 30^0 separately.

MEASUREMENT PACKAGE :

- To provide comprehensive software package for measurement of distance, circumference, area, time depth, velocity, frequency, heart rate, volume.
- Auto-nuchal thickness measurement software to be provided as standard.

SYSTEM COMPLETE WITH FOLLOWING FACILITIES AND ACCESSORIES:

- Full 19-inches or more display area for diagnostic imaging lcd/tft color monitor.
- Monitor resolution 1280 x 1024 pixels minimum .
- Active transducer connector for transthurasic probes.
- Dvd/cd drive for image storage to be built-in to the system.
- At least 500gb hard disk drive to be built-in to the system.
- Dicom media storage.
- Touch command screen control at least 8-inches color lcd/tft.
- Or more different users presets.

UPGRADEABILITY :

- System software must be upgradeable.

STANDARD PROBES :

- 2-6MHz Multi-Frequency Convex Probe For B/M/Cdi/Pw.
- 5-11MHz Multi-Frequency Linear Probe For B/M/Cdi/Pw.
- 4-10MHz Multi-Frequency ENDOCAVITY Probe For B/M/Cdi/Pw.

TISSUE DOPPLER IMAGING MODE.

- Tissue harmonic imaging with 4 harmonic frequencies.
- Auto image optimization/quick scan imaging for automatic stc / gain and doppler spectrum adjustment with optimal image quality by using one touch operation.
- Trapezoid imaging / wide view imaging.
- Sono ct/compound/aplipure imaging for both frequency compounding and spatial compounding in B/W and color mode.
- Adaptive Suppression Imaging /Precision Imaging To Enhance B-Mode Imaging, Detailed In Layers And Boundaries And Sharpened Outlines Of The Lesions And Reduce Cluttering

ACCESSORIES :

A. B/W Thermal Printer.
B. Compatible UPS (imported).

OPTIONAL (MUST BE QUOTED SEPARATELY. IF IN CASE THESE ARE NOT QUOTED, OFFER WILL NOT BE ENTERTAINED):

A. 7-14 MHZ Multi-Frequency Linear Probe For B/M/Cdi/Pw For Breast Imaging With Strain ELASTOGRAPHY.
B. Shear wave ELASTOGRAPHY with measurement for body organs specially for liver with convex probes to visualize tissue stiffness by generating images through shear wave propagation speed and elasticity modes. Shear wave with

propagation maps.

C. B-flow with color and xdclear-2/micro cpa/ superb micro imaging/vascular enhancement/b flow with color/spectral to clearly show blood flow in tiny vessels.

D. Smart 3d for the acquisition of volume data and display of 3d images in b/w as we as color without using a 4d transducer.

E. Advance dynamic flow with color and spectrum / micro cpa color with Doppler spectrum/color b flow with doppler spectrum to visualize the flow in tiny vessels like gallbladder wall, liver capsula etc.

F. 3-7 mhz multi-frequency 4d volume convex probe for 4d imaging with rendering modes including volume rendering, maximum intensity projection (mip), multiple plane rendering (mpr) and cavity also with multi view (.simultaneous coronal, sagittal and oblique view), and full volume view.

G. Multi frequency 4d volume ENDOCAVITY probe for 4d imaging.

H. Hd imaging / luminance imaging process technology to make 3d/4d images of fetuses and anatomical structures appears more realistic.

5-10MHz Multi frequency Biplane End rectal Probe

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED

USA/EUROPE/JAPAN/UK

ITEM NO. 12

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	LAPROSCOPY COMPLETE SET **(A) LAPROSCOPE =01 FOR ADULT FOR GENERAL SURGERY** **(B) (i) LAPROSCOPE** **(ii) HYSTEROSCOPE** **(iii) COLPOSCOPE** **(GENERAL SURGERY + GYNAE)** **LAPROSCOPE MUST BE COMPATIBLE WITH HYSTEROSCOPE AND COLPOSCOPE**	**Qty**	**01 Set**

Specification

• Telescope, 10 mm, 0°, HD, quick lock, autoclavable	01 Unit
• Light guide, Cable,Plug type 3cmm CF Type	01 Unit
• Trocar tube, 11mm	01 Unit
• Trocar spike, 11mm	01 Unit
• Trocar tube, 5.5 x 80 mm, with stopcock	01 Unit
• Trocar spike, 5.5 x 80 mm, triangular	01 Unit
• Reduction tube, 10-5 mm, insulated	01 Unit
• Needle, acc. to Veress, 150 mm	01 Unit
• Grasping forceps "HiQ+", 5 x 330 mm, Ergo	01 Unit
• Grasping forceps "HiQ+", 5 x 330 mm, fine tooth,	01 Unit
• Grasping forceps "HiQ+", 5 x 330 mm, Johann, single action, Ergo	01 Unit
• Dissection forceps "HiQ+", 5 x 330 mm, Maryland, Ergo	01 Unit
• Grasping forceps "HiQ+", 5 x 330 mm, claw type, Ergo.	01 Unit

• Grasping forceps "HiQ+", 5 x 330 mm, DeBakey, Ergo	01 Unit
• Grasping forceps "HiQ+", 10 x 330 mm, wave type, Ergo	01 Unit
• Biopsy forceps "HiQ+", 5 x 330 mm, severing, Ergo	01 Unit
• Hook scissors "HiQ+", 5 x 330 mm, Ergo	01 Unit
• HF-electrode, hook, with suction channel, 5 x 330 mm	01 Unit
• HF-cable, monopolar, 3.5 m, UES-30, Erbe Intl. and	01 Unit
• Valleylab (new) HF-unit to 3 mm pin surgical instrument	01 Unit
• HF-cable "HiQ+", bipolar, 3.5 m, für Olympus UES HF unit	01 Unit
• Handle, for suction/irrigation tube	01 Unit
• Suction/irrigation tube, 5 mm, for A5796	01 Unit
• Tube, set, for 2 bags,	01 Unit
• Spare cannula, for WA51203A	01 Unit
• Needle, for fascial closure	01 Unit
• Clip applicator, 10 x 330 mm, for clips medium/large A5635	01 Unit
• Scissors "HiQ+", 5 x 330 mm, Metzenbaum, Ergo	01 Unit
• Johan Bipolar Forceps HiQ 5X 330 mm	01 Unit
• Hirsch Bipolar Forceps HiQ 5X 330 mm	01 Unit

Automatic Smoke Evacuation 01 Unit

An automatic smoke evacuation feature is enabled on the UHI-4 when it is coupled with a new or existing energy platfrom

This will help provide a clear and unobstructed view of the surgical filed during laparoscopic procedures.

Adjustable Smoke Evacuation

In order to reduce the amount of CO2 used during surgery, the UHI-4 allows for the smoke evacuation to be independently

set on the fornt panel of the unit. The Smoke evacuation can be toggled between a High and Low function.

Specifications.

Abdominal Pressure Control	3 to 25 mmHg
Flow Rate Setting	45L/min
Cavity Mode	Normal Small
Gas Supply From Wall Pipeline	Connectable
Alarm	Over Pressure of abdominal cavity/Tube clogging/ Insufficient supply of gas
Smoke Evacuation Function	Available (when connected to the below devices) UES-40 Electrosurgical Unit SonoSunrg-G2 Sono Surg Generator
OR Integration	OR Integrated

Video System Center

Rated voltage	100–240 V AC; within ±10%
Power Supply	
Rated frequency	50/60 Hz; within ±1 Hz
Rated input	400 VA
Size	
Dimensions (maximum)	383 (W) × 199 (H) × 506 (D) mm

Weight	19.3 kg
Observation	
Analog signal output	VBS composite and Y/C; simultaneous outputs possible
Digital signal output	HD-SDI (SMPTE292M), DVI (WUXGA,1080 pixels, or SXGA can be selected)
Electronic zoom	The image enlargement level can be selected. 3 modes (1.0×, 1.2×, 1.5×)
	The optical-digital observation can be performed. The endoscope compatible with the optical-digital observation is required
Optical-digital observation	NBI observation
	IR observation
Remote control	The following ancillary equipment can be controlled (specified models only).
	Portable memory / · Video recorder / · Video printer / · Image filing system
Documentation	TIFF: no compression
Recording format and number of recording images in internal memory	
	JPEG (1/5): Approx. 1/5 compression
	JPEG (1/10): Approx. 1/10 compression
	These are the numbers of the recording images when both HDTV and SDTV images are recorded. These numbers vary depending on the images.
Examination lamp	LED
Cooling	Forced-air cooling
Illumination	WLI or NBI observation
Observation mode	IR observation (when connecting to
Automatic brightness adjustment method	LED drive current control
Automatic Brightness Adjustment	Automatic exposure 17 steps
	Auto
	Manual
	Type of protection against Class I Electric shock
Classification (Medical Electrical Equipment)	Degree of protection Depends on applied part. Also refer to applied part (camera
against electric shock of applied part	head or video scope).
Degree of protection	the video system center should be kept away from flammable gases against explosion

Autoclavable Camera Head

Observation	Pickup system CMOS image sensor (3×)
	Magnification ratio Focal length f = 15.9 to 31.3 mm
NBI Observation Mode*	Available
IR Telescopes Observation Mode*	Available

Electronic Shutter Function	Available
Electronic Zoom Function	Available
Cleaning/Disinfection/ Sterilization	Cleaning/disinfection Immiscible in disinfectant solution Sterilization Autoclavable/ETO /Sterrad
Classification (Electro medical Equipment)	Type of protection against electric shock TYPE BF
Degree of protection against explosion	The camera head should be kept away from flammable gases
High Resolution Medical Grade LCD Color Monitor 24" (Sony)	
Type	a-Si TFT Active Matrix
Pixel efficiency	99.99%
Viewing angle (up/down/left/right, controls 89/89/89/89 (typical)	
Scan	Normal 0%Over Scan 20%
Effective picture size	518.4 x 324.0613.2 mm (wh, dia)(201/2 x 127/8.241/4 inches
Resolutions	H.1920 dots V1,200 lines
Aspect ratio	16.1
Input	
Composite	(NISC/PAL)connector, BNC (1), Vp-p ±3 dB sync negative
Y/C	Mini DIN 4-pin (x1) Y: 1.0 Vp-p ±3 dB sync negative, C: 0.286 Vp-p ±3 dB (NTSC burst signal level) 0.3 Vp-p ±3 dB (PAL burst signal level)
RGB, Component	BNC (x3) RGB Input: 0.7 Vp-p ±3 dB (Sync On Green, 0.3 Vp-p sync negative) Component Input: 0.7 Vp-p (75%Chominance standard color bat signal
External sync	BNC (x1)
Connector	0.3 Vp-p to 4.0 Vp-p ±bipolarity ternary or negative polarity binary
HDI 5 Input Connector	D-sub 15-pin (1) R/G/B input 0.7 Vp-p sync positive (Sync On Green 0.3 Vp-p sync negative) Sync: TTL level (polarity free: H/V separate sync) Plug & Play function: corresponds to DDC2B
DVI Input	DVI-D (1)
Remote	Parallel remote Modular connector 8-pin (1)
Out Put	
Composite	BNC (x1), loop-through, with 75 ohms automatic terminal function
Y/C	Mini DIN 4-pin (x1), loop-through, with 75 ohms automatic terminal function
RGB, Component	BNC (x3), loop-through, with 75 ohms automatic terminal function
External sync	BNC (x1), loop-through, with 75 ohms automatic terminal function
General	
Power requirements	DC IN: 24 V 3.5 A 5 V 0.030 A (Supplied from AC adaptor AC IN: 100V TO 240 V 50 Hz/60 Hz 1.53 A-O.58 A DC OUT: 24 V 5.0 A 5 V 0.060 A

Operating temperature	0°C to 35°C (32°F to 95°F)
Recommended temperature	: 20°C to 30°C (68°F to 86°F)
Humidity	30% to 85%
Storage and transport temperature	-20°C to +60°C (-4°F to +140°F)
Storage and transport humidity	0% to 90%
Storage and transport pressure	700 hPa to 1060 hPa
Supplied accessories	AC power cord (1), AC plug holder(AC-100MD) (1) (AC Power cord) (1) AC Plug holder(2) Instructions for Use (1) CD-ROM (1) Using CD-ROM Manual (1) Quick Reference (1)

Local Video Trolley with anti castor and keyboard drawer

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED
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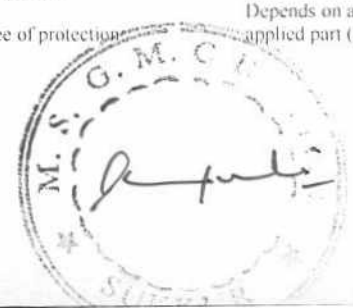
S.NO	DESCRIPTION	
	GYNAE & OBS DEPARTMENT	
1	**HYSTEROSCOPE**	
1	Telescope, 10 mm, 0°, HD, quick lock, autoclavable	
2	Sheath, 4.5 mm, continuous irrigation, 3 Fr. channel	
3	Sheath, 5.5 mm, 5 Fr. channel, continuous irrigation	
4	Grasping forceps, shark teeth, 5 Fr., semiflexible	
5	Scissors, 5 Fr., semiflexible	
6	Biopsy forceps, 3 Fr., semiflexible	
7	Biopsy forceps, 5 Fr., semiflexible	
8	Grasping forceps, mouse tooth, 5 Fr., semiflexible	
9	Palpation probe, hook type, 3.5 mm	
10	Grasping forceps, claw type, 12 mm x 365 mm	
11	Myoma drill, 10 mm x 330 mm	
12	Bipolar Dissecting Electrode Semirigid 5 Fr. Length 36 cm	
13	HF-electrode, needle, 5 Fr., flexible	
14	HF-electrode, button, 7 Fr., flexible	
15	Polypectromy Loop, Monopolar 5 Fr. Length 34cm	
16	Monopolar High Frequency Cord With 4 mm plug length 300cm formodles Erbe type T older models and Ellman	
17	Light guide, Cable,Plug type 3cmm CF Type	
2	**SURGIPUMP FOR LAPAROSCOPIC SURGERY**	
	Technical Data	
	Power	230V
	Frequency	50/60 Hz
	Consisting Of:	

	Surgipump	Suction / Irrigation Pump 230V	
		Suction / Irrigation Tube 4.5mm Channel, 5x330mm	
		Reusable Tubing Irrigation	
		Foot Switch	
		Hand Control Switch	
3a	**Video System Center**		
	Rated voltage	100–240 V AC; within ±10%	
	Power Supply		
	Rated frequency	50/60 Hz; within ±1 Hz	
	Rated input	400 VA	
	Size		
	Dimensions (maximum)	383 (W) × 199 (H) × 506 (D) mm	
	Weight	19.3 kg	
	Observation		
	Analog signal output	VBS composite and Y/C; simultaneous outputs possible	
	Digital signal output	HD-SDI (SMPTE292M), DVI (WUXGA,1080 pixels, or SXGA can be selected)	
	Electronic zoom	The image enlargement level can be selected. 3 modes (1.0×, 1.2×, 1.5×)	
		The optical-digital observation can be performed. The endoscope compatible	
		with the optical-digital observation is required	
	Optical-digita observation	NBI observation	This observation mode uses the narrow-band light.
		IR observation	This observation mode uses the infrared light
	Remote contro	The following ancillary equipment can be controlled (specified models only)	
		Portable memory / · Video recorder / · Video printer / · Image filing system	
	Documentation	TIFF: no compression	Approx. 120 images
	Recording format and number of recording images in internal memory	JPEG (1/5): Approx. 1/5 compression	Approx. 636 images
		JPEG (1/10): Approx. 1/10 compression	Approx. 1108 images
		These are the numbers of the recording images when both HDTV and SDTV images are	
		recorded. These numbers vary depending on the images	
	Examination lamp	LED	
	Cooling	Forced-air cooling	
	Illumination	WLI or NBI observation	
	Observation mode	IR observation (when connecting to	
	Automatic brightness	LED drive current control	
	adjustment method		
	Automatic Brightness Adjustment	Automatic exposure	17 steps
		Auto	
		Manual	
	Classification (Medica Electrical Equipment)	Type of protection against electric shock	Class I
		Degree of protection	Depends on applied part. Also refer to applied part (camera



		against electric shock of applied part	head or videoscope)
		Degree of protection against explosion	The video system center should be kept away from flammable gases
3b	**Autoclavable Camera Head**		
	Observation	Pickup system	CMOS image sensor (3×)
		Magnification ratio	Focal length f = 15.9 to 31.3 mm
	NBI Observation Mode*	Available	
	IR Telescopes Observation Mode*	Available	
	Electronic Shutter Function	Available	
	Electronic Zoom Function	Available	
	Cleaning/Disinfection/ Sterilization	Cleaning/disinfection	Immersible in disinfectant solution
		Sterilization	Autoclavable/ETO/Sterrad
	Classification (Electromedical Equipment)	Type of protection against electric shock TYPE BF	
		Degree of protection against explosion The camera head should be kept away	from flammable gases
4	High Resolution Medical Grade LCD Color Monitor 19" (Sony)		
5	Compact, Ergonomic Trolley Ideal for Any Endoscopic Requirement		
6	**COLPOSCOPE**		
	COLPOSCOPE	**Beyond The Colposcope A Multi-Task Gyne-Imaging Center**	
	Specifications		
	Operating Enviornment	Air Temperature	10 – 40°C (50 – 104°F)
		Humidity	30 – 85 %
		Air Pressure	700 – 1060 hPa (0.7 – 1.1 kg/cm2, 10.2 – 15.4 psia)
	Size	Dimensions	600 mm dia. (Pedestal Base) x 1400 mm (Overall Height)
	Eyepiece	Magnification	10X
		Field Number	22
		Diopter Adjustment	–5 – +5 m-1
	Zooming	Drive System	Manual drive by knob rotation
		Zoom Ratio	1:06
	Focusing	Focus System	Adjustable focal length
		Drive System	Manual drive by knob rotation
		Focus Adjustment Range	220 – 350 mm
	Illumination	System	Light guide
		Filter	Detachable green filter
	Magnifications		WD220: 3.7 – 23.4X
			WD300: 3.0 – 18.8X
			WD350: 2.7 – 16.9X
	Field Of View		WD220: 58.5 – 9.3 mm
			WD300: 73.1 – 11.6 mm
			WD350: 82.4 – 13.1 mm

	Floorstand	Support System	Floorstand
		Balancing System	Pantographic arm balancing using spring
		Balance Adjustment Range	4.0 – 7.0 kg
		Balance Adjustmen	Handle adjusted
		Binocular Tube Tilt	10 degrees upward and 30 degrees downward
		relative to the horizontal observation optical axis	
		Vertical Arm Movement Range	300 mm
		Arm Rotation Range	270°
	Photography/	TV Camera	Connectable using a TV camera adapter (optional)
	Cinematography	Digital Camera	Connectable using a digital camera adapter (optional)
	STANDARD SET OF ACCESSORIES		
	Zoom Microscope Body	Zoom Microscope Body	
	Balance Arm	Balance Arm	
	Horizontal Arm	Horizontal Arm	
	Stand	Stand	
	Floorstand Base	Floorstand Base	
	Small Tray	Small Tray	
	Light Guide	Light Guide	
	Halogen Light Source 150W	Halogen Light Source 150W	
7a	**Video System**		
		Acompact and well-balanced high-resolution video	
		system with high compatibility	
	Power Supply	Voltage	100 to 240v AC
		Frequency	50/60 Hz: within Hz
		Dimensions (WxHxD)	295x69x376mm:312x80x410mm at maximum
	Size	Weight	4.9kg
	Classification (meical electrical equipment)		TYPE BF applied part. Where no classification mark appears, the device is a TYPE BF applied part
		Dagree of Protection against electric shock of applied part	
	Observation		VBS Composite 2, Y/C: 1 (NTSC for 100 to 240 V models VBS Composite 2, Y/C :1 (PAL for 100
		Analog signal output	to 240 V models
		Digital output	DVI :1
		White Balance Adjustment	White balance adjustable is possible using the white balance button the front panel
		Standard color chart output	When the camera head is disconnected, a color bar chart can be display
		Brightness adjustable	Brightness can be adjuctable two modes (HI or LO)
8	**LED Light Source**		
		Powerful Illumination with Advanced LED Technology	

		* Higher brightness compared to conventional halogen light sources. * Constant light intensity over lifetime * Low maintenance costs: No bulb changes required for at least 2,000 hours of operation.
9	* Computer Recording System for Digital Documentation * CPU, LCD Monitor,Color Laser Printer, Key baord, Mouse, Capture Card for still and moving imaging	
10	Local Video Trolley with anticastor and keyboard drawer	
	LAPAROSCOPE	
11	**SET OF HAND INSTRUMENTS FOR LAPAROSCOPIC SURGERY**	
	Telescope, 10 mm, 0°, HD, quick lock, autoclavable	
	Light guide, Cable,Plug type 3cmm CF Type	
	Trocar tube, 11mm	
	Trocar spike, 11mm	
	Trocar tube, 5.5 x 80 mm, with stopcock	
	Trocar spike, 5.5 x 80 mm, triangular	
	Reduction tube, 10-5 mm, insulated	
	Needle, acc. to Veress, 150 mm	
	Rotatable Grasping forceps, 5 x 330 mm,	
	Rotatable Grasping forceps, 5 x 330 mm, fine tooth,	
	Rotatable Grasping forceps, 5 x 330 mm, Johann, single action,	
	Rotatable Dissection forceps, 5 x 330 mm, Maryland,	
	Rotatable Grasping forceps, 5 x 330 mm, claw type,	
	Rotatable Grasping forceps,5 x 330 mm, DeBakey,	
	Rotatable Grasping forceps, 10 x 330 mm, wave type,	
	Rotatable Biopsy forceps, 5 x 330 mm, severing,	
	Hook scissors,5 x 330 mm, Ergo	
	HF-electrode, hook, with suction channel, 5 x 330 mm	
	HF-cable, monopolar, 3.5 m,	
	Valleylab (new) HF-unit to 3 mm pin surgical instrument	
	HF-cable "HiQ+", bipolar, 3.5 mm	
	Handle, for suction/irrigation tube	
	Suction/irrigation tube, 5 mm,	
	Reusable tubing set, for 2 bags,	
	Spare cannula,	
	Needle, for fascial closure	
	Clip applicator, 10 x 330 mm, for clips medium/large	

	Rotatable Scissors, 5 x 330 mm, Metzenbaum, Ergo		
	Johan Bipolar Forceps 5X 330 mm		
	Hirsch Bipolar Forceps 5X 330 mm		
12	**Automatic Smoke Evacuation**		
	An automatic smoke evacuation feature is enabled on the when it is coupled with a new or existing energy platfrom		
	This will help provide a clear and unobstructed view of the surgical filed during laparoscopic procedures.		
	Adjustable Smoke Evacuation		
	In order to reduce the amount of CO2 used during surgery. the allows for the smoke evacuation to be independently		
	set on the fornt panel of the unit. The Smoke evacuation can be toggled between a High and Low function.		
	Specifications.		
	Abdominal Pressure Control	3 to 25 mmHg	
	Flow Rate Setting	45L/min	
	Cavity Mode	Normal Small	
	Gas Supply From Wall Pipeline	Connectable	
	Alarm	OverPressure of obdominal cavity/Tube	
		clogging/Insufficient supply of gas	
	Smoke Evacuation Function	Electronic Co2 insufflator with smoke Evacuation faicility	
13a	**Video System Center**		
	Rated voltage	100–240 V AC; within ±10%	
	Power Supply		
	Rated frequency	50/60 Hz; within ±1 Hz	
	Rated input	400 VA	
	Size		
	Dimensions (maximum)	383 (W) × 199 (H) × 506 (D) mm	
	Weight	19.3 kg	
	Observation		
	Analog signal output	VBS composite and Y/C; simultaneous outputs possible	
	Digital signal output	HD-SDI (SMPTE292M), DVI (WUXGA,1080 pixels, or SXGA can be selected)	
	Electronic zoom	The image enlargement level can be selected. 3 modes (1.0×, 1.2×, 1.5×)	
	Optical-digita observation	The optical-digital observation can be performed. The endoscope compatible	
		with the optical-digital observation is required	
		NBI observation	This observation mode uses the narrow-band light
		IR observation	This observation mode uses the infrared light
	Remote contro	The following ancillary equipment can be controlled (specified models only)	
		Portable memory / · Video recorder / · Video printer / · Image filing system	
	Documentation	TIFF: no compression	

	Recording format and number of recording images in internal memory	JPEG (1/5): Approx. 1/5 compression	
		JPEG (1/10): Approx. 1/10 compression	
		These are the numbers of the recording images when both HDTV and SDTV images are recorded. These numbers vary depending on the images	
	Examination lamp	LED Light	
	Cooling	Forced-air cooling	
	Illumination	WLI or NBI observation	
	Observation mode	IR observation (when connecting to	
	Automatic brightness adjustment method	LED drive current control	
	Automatic Brightness Adjustment	Automatic exposure	17 steps
		Auto	
		Manual	
	Classification (Medica Electrical Equipment)	Type of protection against electric shock	Class I
		Degree of protection against electric shock of applied part	Depends on applied part. Also refer to applied part (camera head or videoscope)
		Degree of protection against explosion	The video system center should be kept away from flammable gases
13b	**Autoclavable Camera Head**		
	Observation	Pickup system	CMOS image sensor (3×)
		Magnification ratio	Focal length f = 15.9 to 31.3 mm
	NBI Observation Mode*	Available	
	IR Telescopes Observation Mode*	Available	
	Electronic Shutter Function	Available	
	Electronic Zoom Function	Available	
	Cleaning/Disinfection/ Sterilization	Cleaning/disinfection	Immersible in disinfectant solution
		Sterilization	Autoclavable/ETO/Sterrad
	Classification (Electromedical Equipment)	Type of protection against electric shock TYPE BF	
		Degree of protection against explosion The camera head should be kept away	from flammable gases
14	High Resolution Medical Grade LCD Color Monitor 24" (Sony)		
	Type	a-Si TFT Active Matrix	
	Pixel efficiency	99.99%	
	Viewing angle (up/down/left/right,controls	89/89/89/89 (typical)	
	Scan	Normal 0%Over Scan 20%	
	Effective picture size	518.4 x 324.0613.2 mm (wh, dia)(201/2 x 127/8 241/4 inches	
	Resolutions	H.1920 dots V1,200 lines	
	Aspect ratio	16:1	
	Input		

Composite	(NISC/PAL)connecror,BNC (1), Vp-p ±3 dB sync negative
Y/C	Mini DIN 4-pin (x1)
	Y: 1.0 Vp-p ±3 dB sync negative,
	C: 0.286 Vp-p ±3 dB (NTSC burst signal level)
	0.3 Vp-p ±3 dB (PAL burst signal level)
RGB, Component	BNC (x3)
	RGB Input: 0.7 Vp-p ±3 dB (Sync On Green, 0.3 Vp-p sync negative)
	Component Input: 0.7 Vp-p (75%Chominance standard color bat signal
External sync	BNC (x1)
	0.3 Vp-p to 4.0 Vp-p ±bipolarity ternary or negative polarity binary
Connector	
HDI 5 Input Connector	D-sub 15-pin (1)
	R/G/B input 0.7 Vp-p sync positive (Sync On Green 0.3 Vp-p sync negative)
	Sync: TTL level (polarity free H/V separade sync)
	Plug & Play fuction corresponds to DDC2B
DVI Input	DVI-D (1)
Remote	Parallel remote
OutPut	
Composite	BNC (x1), loop-through, with 75 ohms automatic terminal fuction
Y/C	Mini DIN 4-pin (x1), loop-through, with 75 ohms automatic terminal fuction
RGB, Component	BNC (x3), loop-through, with 75 ohms automatic terminal fuction
External sync	BNC (x1), loop-through, with 75 ohms automatic terminal fuction
General	
Power requirements	DC IN: 24 V 3.5 A 5 V 0.030 A (Supplied from AC adoptor
	AC IN: 100V TO 240 V 50 Hz/60 Hz 1.53 A-0.58 A
	DC OUT: 24 V 5.0 A 5 V 0.060 A
Operating temperature	0°C to 35°C (32°F to 95°F)
Recommended temperature	20°C to 30°C (68°F to 86°F)
Humidity	30% to 85%
Storage and transport temperature	-20°C to +60°C (-4°F to +140°F)
Storage and transport humidity	0% to 90%
Storage and transport pressure	700 hPa to 1060 hPa
Supplied accessories	AC power cord (1), AC plug holder(AC-100MD) (1) (AC Power cord) (1) AC Plug holder(2)
	Instructions for Use (1) CD-ROM (1) Using CD-ROM Manual (1) Quick Reference (1)

15	Local Video Trolley with anticastor and keyboard drawer

ITEM NO. 13

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PATIENT MONITORS	QTY	10

- **DISPLAY**
- 12.1" Color TFT-LCD TOUCH SCREEN OR MORE
- Resolution 800 X 600 pixels or higher

- **POWER SUPPLY**
- Power Voltage AC 100-240V 50/60Hz
- Power Imput ≤ 85VA
- Fuse: T1.6AL/250V, Φ5X20 (mm)
- Safety class: Category I
- **BATTERY**
- Type: rechargeable Sealed LITHIUM, 12V/2.0AH
- Charge time: ≤ 10 hours (2 batteries for 20 hours)
- Operating time under normal use and full charge:
- ≥ 60 minutes (2 batteries for 120 minutes)
- Operating time after the first alarm if low battery: 5-15 minutes
- **THERMAL RECORD (OPTION)**
- Method: thermal dot array
- Paper width: 50mm (1.97 in)
- Paper Speed: 12.5/25/50 (mm/sec)
- Traces Maximum: 3 tracks
- **SYSTEM OUTPUT**
- Ethernet Network standard RJ45 socket
- RF Wireless LAN: 433MHz, 10mW (option)
- Defibrillation Output: Option
- Video Output: Option
- **ALARM**
- Three Level: Low, medium and high
- Indication: Auditory and visual
- Setup: Default and custom
- Silence: All alarms can be silenced
- Volume: 45~85 dB measured at 1 meter
- **TREND**
- Store & review 168 hours trend data and trend maps
- Parameter option: HR, SpO2, NIBP, PR, Resp, CO2, Temp1,

- Temp2, AA, N2O, O2, IBP1, IBP2, ST.
- Cycle intervals of trend storage 1min, 2min, 3min, 4min, 5min,
- 10min, 15min, 20min, 25min, 30min.

- **STORE & REVIEWING**
- ECG: 30 minutes one important lead's ECG waveform
- Alarm: 1800 groups Alarm events reviewing
- NIBP: 1000 groups NIBP measurement
- Arrhythmia: 128 groups data (8 seconds ECG waveform)
- **ENVIRONMENT**
- Working temperature: 0~+40°C
- Transportation and storage temperature: 20~+55°C
- Relative humidity: Working ≤ 85% Transportation and storage ≤93%
- Atmospheric pressure: Working 860~1060 hPa
- Transportation and storage 500~1060 hPa

- **STANDARD CONFIGURATION:**
- ECG, HR, RESP, NIBP, SpO2, PR, TEMP, Battery Lead-acid

- **OPTION:**
- Litium battery, 2-TEMP, 2-IBP, Recorder, EtCO2 (side stream, main stream),
- Anesthetic Gas, Nellcor SpO2, ICG
- **ECG**
- Mode: 5-leads (standard); 3-leads
- Lead selection: I, II, III, aVR, aVL, aVF, V1~V6 (option)
- Gain: AUTO, 0.25x, 0.5x, 1.0x, 2.0x, 4.0x
- Insulation Breakdown Voltage 4000VAC 50/60Hz
- Sweep speed 12.5mm/s, 25mm/s, 50mm/s
- HR Range: 10~300 bpm
- HR Accuracy ± 1% or ± 1 bpm, whichever is greater
- **ST SEGMENT**
- Measurement Range – 2.0mV~2.0mV
- Resolution 0.01mV
- **RESP**
- Method: Impedance variation between RA-LL (R-F)
- Measurement Range: 0~150 rpm
- Accuracy: ±2 rpm
- Gain: x1, x2, x4
- Sweep speed 6.25mm/s, 12.5mm/s, 25mm/s
- **TEMP**
- Measurement Range: 25.0~50.0°C
- Unit: Celsius (°C), Fahrenheit (°F)
- Accuracy: ±0.1°C (exclusive of probe)

- Connecting cable: Compatible with YSI-400
- **SpO2**
- Measurement Range 0~100%
- Accuracy 70~100%, ±2%
- 0~69%, unspecified
- PR Range 25~250 bpm
- PR Accuracy ±1% or ±1 bpm, whichever is greater
- **NIBP**
- Technique: Automatic oscillometry
- Range: Adult: 10~270 mmHg
- Child: 10~235 mmHg
- Neonate: 10~135 mmHg
- Accuracy: Static ±2% or ±3 mmHg, whichever is greater
- Unit: mmHg, kPa
- Pulse rate range: 40~240 bpm
- Intervals for AUTO measurement: 1,2,3,4,5,10,15,20,30,60,90
- minutes 2,4,8 hours
- **IBP (OPTION)**
- Channel: 2
- Measurement Range: -50~ +300 mmHg
- Unit: mmHg, kPa
- Accuracy: ±2mmHg or 2%, whichever is greater
- **EtCO2 (OPTION, Sidestream, LoFlo)**
- Range 0~19.7% (0 ~ 150 mmHg)
- Unit: %, mmHg, kPa
- Respiration Rate Range 2~150 bpm

- **SIZE AND WEIGHT**
- Size 318mm X 264mm X 152mm
- Weight 4.5kg

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 14

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ETT MACHINE	Qty	01
STRESS System Windows® based • Automatic control of treadmill and ergometers • Leads view in 3, 4, 6 or 12 leads screen formats			

• Storage of all data in the hard drive, allowing access to the original test results at any time for future review or printing
• Arrhythmia detection
• Calculation of average ECG complexes on regular intervals and their superimposition on a reference ECG complex, which highlights ST changes in details
• ST measurements on 12 leads
• Adjustable ST measurement point
• ST, STj, STj+60, STj+80, Heart Rate, Mets, Pressure and ST/HR trends
• Heart frequency dependent ST measurement and analysis
• Automatic storage of rhythm strips at steps changing or manually throughout the test
• Alarms: ST alarm on 12 leads, Heart Rate, pressure and double product
• On line 12 channels average heart cycle configuration
• Blood Pressure entrance and display of trend
• External module for automatic NIBP measurement (optional)
• Preprogrammed protocols, included Bruce, Modified Bruce, Balke, Ellestad
• Modify or add unlimited customized protocols for treadmill or pharmacological stress test reports and print out
• Print out format in 12 leads, 6+6 leads, and 6+6 leads+AVG including average, trend graphs, tabular reports and overview, using A4 color laser printer
• Review full report online immediately after completing the test
• Real time ECG print-out
• Set up analysis, protocols, printing format and final report customizable
• Digital filters LP, HP, antidrift and notch of high quality for the careful recording without artefacts
• Transmission of traces and reports by email or network sharing
• Direct PDF printing for report storage and viewing
• Email ECG results directly from the PC system
• Automatic calculation of Harvard Step Test

MyECG Amplifier

MyECG Amplifier module is a lightweight, portable device that connects your PC to your patient.

Version:

• SMART ECG (USB)

- Isolated preamplifier in accordance with CEI 62-5 (IEC 601-1) and CEI 62-15 (IEC 62D)
- Input impedance > 50 Mohms
- Defibrillator protection
- 12 leads acquisition with 512 sampling rate.
- CMRR > 100 dB
- Frequency 0.05 - 150 Hz
- Standard patient cable with 10 wires.

- Powered by USB port
- Dimensions: 144x94x20 mm.
- Weight: 150 gr
• SMART ECG Plus (Bluetooth)
- Safety Standard in accordance with IEC II/CF
- Input impedance > 50 Mohms
- Defibrillator protection
- 12 leads acquisition with 512 sampling rate.
- CMRR > 100 dB
- Standard patient cable with 10 wires.
- 10m Bluetooth distance
- Powered by 2* AAA battery
- Dimensions: 126mm×68mm×24mm
- Weight: 120 gr

Minimum PC
- Operation system: Windows XP
- CPU: Pentium IV
- RAM: 1 GB
- HDD: 500 GB
- Interface: USB port free

OR EQUIVALENT

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ITEM NO. 15

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	CTG MACHINE	Qty	05

FETAL PARAMETERS

Range	30-240 bpm
Accuracy	<+/- 1bpm
Mode	Pulsed Doppler
Display	FHR values
	Pulse indicator
	Confidence indicator
	Line graph
Print	Line graph
Repetition rate	2.994khz
Frequency	1.0mhz
Pressure	<330kpa

Lob	<1mW/cm^3
ISPTA	<3mW/cm^2
Resolution	16 bits
Safety	Type b protection
Watertight	IPX7 rating

DIRECTOR FETAL ECG

Range	30-240 bpm
Accuracy	<+/- 2bpm
Notch filter	Auto set to 50Hz or 60hz
Display	FHR values
Pulse indicator	
	Confidence indicator
	Line graph
Print	Line graph
Notch filter	50Hz or 60Hz
Input impedance	10M Ohm
Input range	3µV - 5µV peak to peak
DC offset	+/- 2mV common mode
	+/- 300mV Different
Common mode range	+/- 2mV Main frequency
Noice	<10µV peak to peak referred to input
Safety	Type cf protection

ALARM & ALERTS

High heart rate
Low heart rate
Signal loss
Dual rate detection
Poor ECG connection (high impedance)

FETAL MOVEMENT

Recorded with either the maternally sensed event marker, or automatically using actogram.

This records the fetal limb and trunk movements by detecting low frequency Doppler signals through the 1.0MHz ultrasound transducer

EXTERNAL UTERINE ACTIVITY (TOCO)

Range	-100 relative units
Sensitivity	100% FSD equivalent to 125g
offset range	0-*375g
Baseline	Manual and auto zero facility to 0.10 or 20%
Display	TOCO values

	line graph
Print	Line graph
Safety	Type B protection

INTRA-UTERINE ACTIVITY (IUP)

Transducers INTRANplus (or equivalent pre-calibrated transducer)
PRESSURE RANGE 0-100MM Hg/1-13.3kPa (user selectable)
Sensitivity 1 mmHg
Accuracy +/- 5%

Display	IUP values
Line graph	
Print Line graph	
Safety typeCF protection	

MATERNAL VITAL SIGNS

Heart rate & ECG	
Range	30-240 bpm
Accuracy	<+/- 2bpm
Display	HR Values
Print	Line graph

DISPLAY

Hardware

Technology	Full colourtft liquid crystal display
Size	8.4in diagonal 4:3 aspect ratio
Resolution	SVGA , 800 X 600
Viewing angle	Better than 160°

CONTROLS

Touch screen

Apart from the power on / off touch sensitive button. All of the control of the sonicaid team 3 is through the integrated touch screen. This presents buttons, touch areas, dialogues and keypads for entering data and selecting the required configuration of the fetal monitor.
Feedback is accomplished through an audio tick which can be turned off if required.

BATTERY

Capacity	4400mAh
Use	4 hours without printing and reduced display
brightness	
Charging time	Approx..4 hours

ENVIRONMENTAL	
Operating temp	+10°C - +35°C (50°F – 96°F)
Storage temp	-20°C - +60°C (-4°F – 140°F)
Storage pressure	68 to 106 kPa (680 to 1060mB)
Relative humidity	10 -90 % non-condensing
PHYSICAL	
Height	18.6 cm (7.3) without printer
23.4 cm (9.2 in0 with printer	
Width	32.0 cm (12.6 in)
Length	23.0 cm (9.0 in)
Weight	6 kg (13.5 lbs) Max

OR EQUIVALENT

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ITEM NO. 16

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	VITAL SIGN MONITOR	Qty	10

TECHNICAL SPECIFICATION	
Size	125x299x130mm
Weight	1.25kg
Display type / size	LED 100 x 120mm
Power voltage	100 -240VAC
Power frequency	50/60 Hz
Input current	0.15-.03A
Battery type / capacity	lithium ion, 11.1V, 2200 mAh
Thermometer battery type/ capacity	LR03 (AAA x 2) 1.5 VDC
Patient groups	Adult, Paediatric& Neonate
NiBP	Oscillometric
SpO_2	0% to 100%, 1% resolution
Temperature (option)	Tympanic, 34°C to 42.2°C (93.2°F to 107.6°F)

OR EQUIVALENT
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ITEM NO. 17

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PROTECTED ENVIRONMENT TRANSPORT CHAMBER	Qty	03

Technical date

Battery autonomy	h	4
Positive pressure		yes
Positive pressure at ground level	Pa	(+)60
Negative pressure		yes
Negative pressure at ground level	Pa	(+)50
Intake filtration		H14
Output filtration		H14
Air renewal rate	vol/h	99.995%
Electrical connections		12 V DC 110-230 V AC 50-60 Hz
External dimensions	W x D x H,	2150 x 650 x 650
Internal dimensions	W x D x H mm	2000 x 600
Weight	KG	40
Panoramic glass		yes
Double body with inside rounded angles		yes
Harness to maintain the patient		yes
Manipulation gloves		6
Sealed port for medical appliance connections		1 that is 6 connections
Maternal input hose		No
Waste output hose		No
Control board with LCD screen		yes
On board monitoring		no

OPTIONS

- 3 point lifting trolley according to regulation EN 1789 and 1865
- Ambulance / airplane fixation systems

OR EQUIVALENT

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ITEM NO. 18

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DIATHERMY MACHINE	Qty	06

Output of 400 to 500w in continuous mode and 800 to 1100 w in pulse mode pulse repetition frequency of 20 to 200 Hz adjustable in 10 steps LCD Screen display of parameter Treatment timer with all standard accessories condenser pad with cable Dis electrodes with arms and cables. Patient safety switch

4.

System configuration Accessories spares and consumables

As specified

5.

Environmental factors

5.1 Enviromental factors to be complied

1. Shall meet IEC-606-1-1-:2001 (or Equivalent BIS) General Requirements of safety for Electromagnetic compatibility or should comply with 89/366 EEC, EMCdi

2. The unit shall be can able of being stored continuously in ambient temperature of 0-50 deg C and relative humidity of 15-90%

3. The unit shall be capable of operating continuously in ambient temperature of 10-40 deg C and relative humidity of 15-90%

6.

Power Supply

6.1 1. Power input to be 220-240 VAC, 50Hz fitted with Indian Plug

2. UPS of suitable rating with voltage regulation and spike protection for

OR EQUIVALENT

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ITEM NO. 19

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	BED SIDE PATIENT MONITOR	Qty	15

- **DISPLAY**
- 12.1" Color TFT-LCD TOUCH SCREEN OR MORE
- Resolution 800 X 600 pixels or higher

- **POWER SUPPLY**
- Power Voltage AC 100-240V 50/60Hz
- Power Imput ≤ 85VA
- Fuse: T1.6AL/250V, Φ5X20 (mm)
- Safety class: Category I

- **BATTERY**
- Type: rechargeable Sealed LITHIUM, 12V/2.0AH
- Charge time: ≤ 10 hours (2 batteries for 20 hours)
- Operating time under normal use and full charge:
- ≥ 60 minutes (2 batteries for 120 minutes)
- Operating time after the first alarm if low battery: 5-15 minutes

- **THERMAL RECORD (OPTION)**
- Method: thermal dot array
- Paper width: 50mm (1.97 in)
- Paper Speed: 12.5/25/50 (mm/sec)
- Traces Maximum: 3 tracks

- **SYSTEM OUTPUT**
- Ethernet Network standard RJ45 socket
- RF Wireless LAN: 433MHz, 10mW (option)
- Defibrillation Output: Option
- Video Output: Option

- **ALARM**
- Three Level: Low, medium and high
- Indication: Auditory and visual
- Setup: Default and custom
- Silence: All alarms can be silenced
- Volume: 45~85 dB measured at 1 meter

- **TREND**
- Store & review 168 hours trend data and trend maps
- Parameter option: HR, SpO2, NIBP, PR, Resp, CO2, Temp1,
- Temp2, AA, N2O, O2, IBP1, IBP2, ST.
- Cycle intervals of trend storage 1min, 2min, 3min, 4min, 5min,
- 10min, 15min, 20min, 25min, 30min.

- **STORE & REVIEWING**
- ECG: 30 minutes one important lead's ECG waveform
- Alarm: 1800 groups Alarm events reviewing
- NIBP: 1000 groups NIBP measurement
- Arrhythmia: 128 groups data (8 seconds ECG waveform)

- **ENVIRONMENT**
- Working temperature: 0~+40°C
- Transportation and storage temperature: 20~+55°C
- Relative humidity: Working ≤ 85% Transportation and storage ≤93%

- Atmospheric pressure: Working 860~1060 hPa
- Transportation and storage 500~1060 hPa

- **STANDARD CONFIGURATION:**
- ECG, HR, RESP, NIBP, SpO2, PR, TEMP, Battery Lead-acid

- **OPTION:**
- Litium battery, 2-TEMP, 2-IBP, Recorder, EtCO2 (side stream, main stream),
- Anesthetic Gas, Nellcor SpO2, ICG

- **ECG**
- Mode: 5-leads (standard); 3-leads
- Lead selection: I, II, III, aVR, aVL, aVF, V1~V6 (option)
- Gain: AUTO, 0.25x, 0.5x, 1.0x, 2.0x, 4.0x
- Insulation Breakdown Voltage 4000VAC 50/60Hz
- Sweep speed 12.5mm/s, 25mm/s, 50mm/s
- HR Range: 10~300 bpm
- HR Accuracy ± 1% or ± 1 bpm, whichever is greater

- **ST SEGMENT**
- Measurement Range – 2.0mV~2.0mV
- Resolution 0.01mV

- **RESP**
- Method: Impedance variation between RA-LL (R-F)
- Measurement Range: 0~150 rpm
- Accuracy: ±2 rpm
- Gain: x1, x2, x4
- Sweep speed 6.25mm/s, 12.5mm/s, 25mm/s

- **TEMP**
- Measurement Range: 25.0~50.0°C
- Unit: Celsius (°C), Fahrenheit (°F)
- Accuracy: ±0.1°C (exclusive of probe)
- Connecting cable: Compatible with YSI-400

- **SpO2**
- Measurement Range 0~100%
- Accuracy 70~100%, ±2%
- 0~69%, unspecified
- PR Range 25~250 bpm
- PR Accuracy ±1% or ±1 bpm, whichever is greater

- **NIBP**
- Technique: Automatic oscillometry
- Range: Adult: 10~270 mmHg
- Child: 10~235 mmHg
- Neonate: 10~135 mmHg
- Accuracy: Static ±2% or ±3 mmHg, whichever is greater
- Unit: mmHg, kPa
- Pulse rate range: 40~240 bpm
- Intervals for AUTO measurement: 1,2,3,4,5,10,15,20,30,60,90
- minutes 2,4,8 hours

- **IBP (OPTION)**
- Channel: 2
- Measurement Range: -50~ +300 mmHg
- Unit: mmHg, kPa
- Accuracy: ±2mmHg or 2%, whichever is greater

- **EtCO2 (OPTION, Sidestream, LoFlo)**
- Range 0~19.7% (0 ~ 150 mmHg)
- Unit: %, mmHg, kPa
- Respiration Rate Range 2~150 bpm

- **SIZE AND WEIGHT**
- Size 318mm X 264mm X 152mm
- Weight 4.5kg

OR EQUIVALENT

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ITEM NO. 20

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	SPIROMETER	Qty	01

Flow/volume sensor Bi-directional turbine
Temperature sensor semiconductor (0-45°C)
Method of detection Infra-red interruption
Maximum volume measured 10 L
Flow rate +/- 16 L/s
Volume accuracy +/- 3% or 50 mL
Flow accuracy +/- 5% or 200 mL/s

Dynamic resistance at 12 L/s <0.5 cmH2O/L/s

OXIMETER SPECIFICATION

Method of detection Red and infra-red light absorption
Measuring range of %SpO2 0 – 99% (with 1% increments)
Resolution of SpO2 1%
Accuracy of %SpO2 +/- 2% between 70-99% SpO2
Number of beats for calculating the median SpO2 % 8 beats
Pulse rate measuring range 18 – 300 BPM
Resolution of pulse rate 1 BPM
Pulse rate accuracy +/- 2 BPM or 2% of highest value
Interval for calculating median pulse rate 8 seconds
Signal quality 0 - 8 display segments

OR EQUIVALENT
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ITEM NO. 21

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PULSE OXIMETER	Qty	25

For Adult / Paediatric/ Neonate
Desk Stand with integrated Charging port
4xAA NiMH rechargeable cells
Wall cube/power supply
Reusable sensor
Multi lingual instruction for use CD

OR EQUIVALENT
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ITEM NO. 22

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	CRYOTHERAPY UNIT	Qty	01

- Slender, fingertip trigger for maximum control
- rotates easily for left-hand users.
- Patented Safety Auto vent maximizes safety internal pressure to gradually vent as the cap is

unscrewed.

- Streamlined relief valve for consistent and accurate freezing.
- Polypropylene Cover and Collar insulates the user's hand.
- Stainless steel and brass construction
- Polypropylene base for extra stability

including:

- **Cryo Unit** with set of **06** spray tips.
- **Dewar 20 liters**
- **Withdrawal Device 01**
- **Cryoplate 01**

All Standard Accessories

OR EQUIVALENT
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ITEM NO. 22

TECHNICAL SPECIFICATIONS	
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS	
Austin Moore Standard /Narrow (Full Set) Narrow (38-39-40-41-42-43-44-45-46-47-48-49-50-51-52) Standard(38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54)	32
Bone Cement 40g	100
Narrow DCP 7/100 8/100 9/100 10/50 12/50	400
Broad DCP 8/200 9/200 10/300 12/100 14/50 16/50 18/50	950
DHS Plate 4/200 5/50 6/50 8/25 10/25	350
Lag Screw (All Sizes 50 to 105)	700
Mini DCP 6/100 7/300 8/100 9/100 10/100	700
1/3rd Tubular Plate (6/100 7/100 8/100 9/100)	400
Cortical Screw 3.5 mm	5000
Cortical Screw 4.5 mm	6000
Femoral Inter Locking Titanium (All Sizes)	200
Tibial Interlocking Plate Titanium (All Sizes)	100
Broad Locking Plate Titanium	400

8/50 9/50 10/100 12/100 14/50 16/50	
Distill Femoral Locking Plate 5/50 7/100 9/50 11/50 13/50	400
Locking Screw (All Sizes)	7000
External Fixator (A.O) 5.0 mm 12/50 14/100	150
External Fixator (N.A) 5.0 mm 12/50 14/200 16/50	300
K. Wire 1.5/100 1.8/100 2.0/3000 2.5/3000 3.0/1000	7200
Drill Bit 2.5/500 3.0/500 3.2 /500 3.4/500 3.5 /500	2500
K. Nail Titanium (All Sizes)	200
Illizarov (Full Set)	100
T Adjustment Clamp (All Sizes)	300
Cancellous Screw (All Sizes)	200
Giggle Wire (All Sizes)	300
Suture Wire (All Sizes)	100
Malleolar Screw (All Sizes)	100
Stemming Pin . Skeleton Traction	100
Pop Cutter Machine Saw	04
Dynaguase Cutter	04

ITEM NO. 23

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	UROLOGY DEMAND	Qty	
URO FLOWMETRY	01		
Turp Reset Scope with Optical lens 30 degree 0 degree working	01		
Lithotriate for lithortripsy	01		
Cystoscopy Paeds size No. 09 Fr.	01		
Cystoscopy Adult size No. 17 Fr.	01		

Biopsy Punch Forcep	01
OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/JAPAN/UK	

ITEM NO. 24

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	COMPLETE SURGICAL SET FOR GENERAL OPERATION THEATOR	Qty	03
COMPLETE SET FOR GENERAL SURGERY OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/JAPAN/UK/EUROPE/PAKISTAN			

ITEM NO. 25

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	COMPLETE SURGICAL SET FOR UROLOGY	Qty	03
COMPLETE SET FOR UROLOGY OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/JAPAN/UK/EUROPE/PAKISTAN			

ITEM NO. 26

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PEADS BRONCHOSCOPE	Qty	03
OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/JAPAN/UK/EUROPE			

ITEM NO. 27

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ADULT BRONCHOSCHOPE	Qty	03
OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/JAPAN/UK/EUROPE/			

ITEM NO. 28

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PEADS LYRNGOSCOPE 0 AND 01 STARIGHT	Qty	02
OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/JAPAN/UK/EUROPE/			

ITEM NO. 29

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	B.P APPARATUS MURCURY	Qty	25
OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/JAPAN/UK/EUROPE/			

ITEM NO. 30

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DIGITAL BLOOD PRESURE MONITOR	Qty	25
COMPLETE SET FOR GENERAL SURGERY OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/JAPAN/UK/EUROPE/			

ITEM NO. 31

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	BLOOD SUGAR METER	Qty	100

BLOOD SUGAR METER 100 Units

Strips for Meters 10000 Strips

OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/JAPAN/UK/EUROPE/

MEDICAL SUPERINTENDENT

GHULAM MUHAMMAD MAHAR MEDICAL COLLEGE HOSPITAL SUKKUR

TENDER FOR PURCHASE OF MACHINERY/EQUIPMENT TO BE INSTALLED AT GHULAM MUHAMMAD MAHAR MEDICAL COLLEGE HOSPITAL SUKKUR

ADP SCHEME DUE ON 29-03-2018

INSTRUCTION TO BIDDERS / PREPARATION OF BID

SCOPE	MEDICAL SUPERINTENDENT, GMMC HOSPITAL SUKKUR intend to Purchase **SUPPLY & INSTALLATION OF MEDICAL EQUIPMENT/INSTRUMENTS MACHINERY &General Items** through National Competitive Bidding.
1. Technical/ Financial Proposal	1.1 Technical and Financial proposal separately, i.e. single stage two envelope procedure. The envelope must contain on the top clearly written at corner for "TECHNICAL PROPOSAL" OR for "FINANCIAL PROPOSAL" in order to avoid any confusion. The tenders shall be submitted with all documents, drawing literature & catalogue (in equipment) in Technical proposal. The name of manufacturer or supplier should be affixed on the face of envelop a the left side. Moreover, financial envelops should contain financial bid each item separately.(Commercial offer must be quoted in each item/ each envelope)The envelopes shall then be sealed in an outer envelope. The inner and outer envelopes shall be addressed and marked to the Procuring agency at the address given in the BDS, Initially envelope marked as "**TECHNICAL PROPOSAL"** shall be retained In the custody of the procuring agency without being opened. 1.2 Tenders must be filled in with blue or black in k in the column provided or on separated letter head duly signed. 1.3 The tenders must be free from erasing, cutting and overwriting. In case of erasing, cutting and over writing, authorized person should sign & stamp it. 1.4 Conditional tenders will be ignored and will not be considered/entertained/accepted. 1.5 The rates of each item should be written in figures as well as in words. In case of discrepancy the price in words will be taken as authenticate and final. 1.6 **Original purchase receipt must been closed with the technical offer**.
2. Ernest Money	2.1 The bid security is required to protect the Procuring agency against the risk of Bidder's conduct, which would warrant the security's forfeiture The bid security shall be denominated in the currency of the of the bid. 2.2 Tender shall be accompanied by Earnest Money@2%of the value of stores quoted by them inform of Bank Guarantee /pay order/demand draft in the name of **MEDICAL SUPERINTENDENT GMMCH SUKKUR.** 2.3 Copy of earnest money (without amount) must be attached along with the technical bid and the original along with financial bid in case of disclosure of price or amount of Earnest Money in the technical bid, the bid will be rejected. 2.4 Bid security shall release to the unsuccessful bidders once the contract has been signed with the successful bidder or the validity period has expired. 2.5 The successful Bidder's bid security shall be discharged upon the Bidder signing the contract, and furnishing the performance security. 2.6 The bid security may be forfeited: a) if a Bidder withdraws its bid during the period of bid validity or b) In the case of a successful Bidder, if the bidder fails: to sign the contract in accordance or to furnish performance security within

	time.
3. Professional Documentation & Conditions	3.3 List of hospitals, name of department, contact numbers of the end users, in which the quoted equipment are installed by bidder who is participating in this tender must be attached. Copy of previous installation report in a reputed Government/Private [Teaching Hospitals/ repair certificate if any, of the similar quoted item from the end user should be attached along with the bid Sole agent certificate for the quoted items from the Manufacturer must be attached by the bidder. Certificate should be valid for three years from the date of issue which should be verifiable by concerned authority. 3.4 The bidder shall furnish General Sales Tax (GST) Registration Certificate of the firm failing which the offer will be ignored. In case the item is exempted from GST either documentary evidence or certificate from competent authority shall be attached with the offer. 3.5 The bidder shall furnish copy of valid Professional Tax Certificate, Income Tax Certificate; Last three years paid income tax Challan and proof of registration with Chamber of Commerce. 3.6 The equipment to be imported comply/certificate of CE/FDA/JIS standards certificate should be attached along with the offer. 3.7 Bidder should submit a fresh bank certificate/ statement showing strong financial capability of firm (Last Three Years). 3.8 Tendrer are required to furnish a detail of technical quotation on their letter head and specify the standard and optional items / accessories as required in the tender specification. Bidder should clearly mention make, model and country of origin of the quoted items. 3.9 No manufacturer shall authorize their distributor/agent/any firm or person to quote the same item which manufacturer quoted it-self in any tender. Failing which offer of the manufacturer will be considered and other shall be rejected.
4. Alternate Offer	Tendrer shall purchase separate tender document and furnish purchase receipt for each alternate offer in case they intend submit alternate offer without separate purchase receipt (original) are supposed to be rejected
5. Bid Validity	5.1 Bids shall remain valid for the period of 90 days after the date of bid opening prescribed by the Procuring agency. A bid valid for a shorter period shall be rejected by the Procuring agency as non responsive. 5.2 In exceptional circumstances, the Procuring agency may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The bid security shall also be suitable, extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will neither be permitted to modify its bid
6. Bid Prices	6.1 Price should be quoted **"FOR"** basis. FOR offer should be quoted on delivery to consignee's end **i.e Medical Superintendent, GMMMCH Sukkur** inclusive of all taxes, stamps, duties, levies, fees and installation and integration charges imposed specified in the schedule of Requirements. No separate payment shall be made of the incidental services. 6.2 The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total bid price of the goods it proposes to supply under the contract. 6.3 Prices quoted by the by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account, unless

	otherwise specified in the Bid Data Sheet.
7. Bid Currency	Prices Shall be quoted in Pak Rupees.
8. Bid Form	The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity, and prices.
9. Documents Establishing Bidder's Eligibility and Qualification	9.1 The Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted. a) that, in the case of a Bidder offering to supply goods under the contract which the bidder did not manufacture or otherwise produce, the bidder has been duly authorized by the good Manufacture or producer to supply the goods in the Islamic Republic of Pakistan. b) that the Bidder has the financial ,technical ,and production capability necessary to perform the contract; that the Bidders meets the qualification criteria listed in the Bid Data Sheet.
10. Documents Establishing Goods' Eligibility and Conformity to Bidding Documents	10.1The documents evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings, and Data, and shall consist of: (a) a detailed description of the essential technical and performance characteristics of the goods; (b) The Bidder shall note that standards for workmanship, material ,and equipment, as well as references to brand names or catalogue numbers designated by the Procuring agency in its Technical Specification are intended to be descriptive only and not restrictive :till stated otherwise in Technical Specifications or Bid Data Sheet .The Bidder may substitute alternative standards, brand names , and /or catalogue numbers in its bid , provided that demonstrates to the Procuring agency's satisfaction that the substitutions ensure substantial equivalence to those designated in the in the Technical Specifications
11. Format and Signing of Bid	11.1The Bidder shall prepare an original and the number of copies of the bid indicated in the Bid Data Sheet, clearly marking each **"ORIGINAL BID"** and **"COPY OF BID"** as appropriate. In the event of any discrepancy between them, the original shall govern. 11.2The original and the copy or copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid. 11.3Any interlineations, erasures, or overwriting shall be valid only if they are initialed by the person or persons signing the bid.
12. Submission of Bids and its Deadline	12.1 If the outer envelope is not sealed and marked as required, the Procuring agency shall assume no responsibility for the bid's misplacement or premature opening 12.2 Bids must be received by the Procuring agency at the address specified in BDS, not later than the time and date specified in Bid Data Sheet. 12.3 The Procuring agency may at its discretion extend the deadline for the submission of bids by amending the bidding documents, in such case all rights

	and obligations of the Procuring agency and bidders.
13. Late Submission of Bid	Any bid received by the Procuring agency after the deadline for submission of bids prescribes by the Procuring agency shall be rejected and returned unopened to the Bidder.
14. Modification and Withdrawal of Bids	14.1 The Bidder may not modify or withdraw its bid after the bid's submission, provided with consent of end user and procuring agency , including substitution or withdrawal of the bids, is received by the Procuring agency. 14.2 Bid may be modified after the deadline of bids as per end users demand and procurement agency. 14.3 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiry of the period of bid validity withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security.
15. Taxes and Duties	Supplier shall be entirely responsible for all taxes, duties (including stamp duty), license fees, etc., incurred until delivery of the contracted Goods to the Procuring agency.
16. Overriding effect of SPPRA RULES 2010 (Amd: 2013)	In case of conflict or primacy of interpretation the provisions of SPP Rules 2010 (amended 2013) shall have an overriding effect notwithstanding anything to the contrary contained in these bidding documents
17. Rights to reserve	Procurement Agency/Committee reserves the rights to reject any bid, which is otherwise sub standard and of low quality or to amend or reject bid/tender at any stage. Bid may be modified after the deadline of bids as per end users demand and procurement agency.
18. Liquidity Damage	If the Supplier fails to deliver the goods or perform the services within the time period(s) specified in the contract, the Purchaser shall, without prejudice to its other remedies under the contract deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.07 percent of the Contract Price for each day of delay until actual delivery or performance, up to a maximum deduction of 10% of the Contract Price. Once the maximum is reached, the purchaser may consider termination of the contract
19.1 Integrity Pack	Procurements exceeding Rs.10 million for goods and works Rs. 2.5 million for services shall be subject to an integrity pact as specified by regulations between the procuring agency and the suppliers or contractors or consultants.

EVALUATION CRITERIA

MANDATORY DOCUMENTS

S. No.	Bidders Eligibility Factor	Requirement	Document Required
1	Registration with Income Tax	Mandatory	Attach Copy of Active NTN certificate
2	Registration with Sales-Tax	Mandatory	Attach Copy Active GST registration Certificate
3	Relevant Experience Minimum of 5 years	Mandatory	Attach copies of Supply Orders with relevant completion certificate or Inspection Report
4	Financial Capacity	Mandatory Annually turnover of PKR. 60 Million for the past 1 year From 1st march 2017 to 28th February 2018	Attach supporting Bank Certificate of Company's Bank Account And bank statement showing end turnover of 60 Million
5	Agreement with all the terms & conditions	Mandatory Must unconditionally agree with all the instructions, terms & conditions specified in the bidding documents & contract agreement	Signature & company seal on every page of the bidding document.
6	Delivery time	Mandatory Must agree to serve the Contract within the stipulated time period	Completion time must be clearly specified in the Technical Bid
7	WEBOC ID	Mandatory This is mandatory for Electro Medical Items.	For imported items company must have to provide copy of WEBOC ID or Submit Printed online page of ID

NOTE: All above documents are mandatory and bidder failing to submit any of above document treated as non-serious bidder and lead to disqualify his bid and will not consider for further process.

Read and Agreed by M/s_____.

Name _____.

Signature with Stamp_____.

19. DOCUMENTS CHECKLIST

PART II

Please review the following list of all possible documents to be enclosed with the technical proposals.

Sr#	Document Description	Yes	No	Page No.
1.	Tender Purchase Receipt (Original)			
2.	Bid Security (Pay Order/Bank Draft) (Original in Financial offer)			
3.	General & Special Conditions of Contract (Duly filled, Signed & Stamped by bidder each & every page)			
4.	Schedule of Requirements (dully filled, Signed with Stamp)			
5.	Technical Specifications (dully filled, Signed with Stamp)			
6.	Technical Proposal on Bidder's Letterhead			
Bidders Documents				
7.	Manufacturer's Authorization (as per sample form)			
8.	Undertaking (as per sample form)			
9.	Certificate (as per sample form)			
10.	Income Tax & GST Registration Professional Tax Certificate (Sindh)Certificates are mandatory, Bidder's FBR Status should be ACTIVE (For NTN and Sales Tax)			
11.	Valid PNRA registration certificate where applicable			
12.	Company Profile			
13.	Bank certificate/Statement with last three years turnover.			
14.	Income Tax Return (last two years)			
15.	Workshop for after sales services			
16.	Technical Team detail			
17.	The Bidder will ensure provide WEBOC ID of Bidder must be active for Electro Medical Items.			
Original Equipment Manufacturer (OEM or brand quoted)				
18.	CE / FDS / JIS			
19.	References of offered model or brand (in Pakistan preferable in Sindh)			

- Mandatory documents are mentioned in instruction to bidder
- All pages of bid except for un amended printed literature shall be initiated by the bidder

19.1 Bidder's details for notice purpose

Bidder Name	
Company	
Address	
Tel& Fax No.	
Contact Person & Cell No.	
Email Address	

OPENING AND EVALUATION OF BIDS PART II-C

21. Opening of Bids by the Procuring agency	21.1 The Procuring agency shall open all bids in the presence of bidder's representatives who choose to attend, at the time, on the date, and at the place specified in the Bid Data Sheet. The bidders' representatives who are present shall sign a register/attendance sheet evidencing their attendance. 21.2 The bidders' names, bid modifications or withdrawals, bid prices, discounts, and the presences or absence of requisite bid security and such other details as the Procuring agency, at its discretion, may consider appropriate, will be announced at the opening.
22. Clarification of Bids	22.1 During evaluation of the bids, the Procuring agency may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted.
23. Preliminary Examination	23.1 The Procuring agency shall examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. 23.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the correction of the errors, its bid will be rejected, and its bid security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail. 23.3 Prior to the detailed evaluation, the Procuring agency will determine the substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Procuring agency's determination of a bid's responsiveness is to be based on the contents of the bid itself. 23.4 If a bid is not substantially responsive, it will be rejected by the Procuring agency and may not subsequently be made responsive by the Bidder by correction of the nonconformity.
24. Evaluation & Comparison of Bids	24.1 The Procuring agency will evaluate and compare the bids which have been determined to be substantially responsive. 24.2 The Procuring agency's evaluation of a bid will be on delivery to consignee's end inclusive of all taxes, stamps, duties, levies, fees and installation and integration charges imposed till the delivery location and shall exclude any allowance for price adjustment during the period of execution of the contract.
25. Contacting the procuring agency	25.1 No Bidder shall contact the procuring agency on any matter relating to its bid, from the time of bid opening to the time the announcement of Bid Evaluation Report. If the Bidder wishes to bring additional information to the notice of the procuring agency, it should do so in writing. 25.2 Any effort by a Bidder to influence the Procuring agency in its decision on bid evaluation, bid comparison, or contract award may result in the rejection of the Bidder's bid.

26. Post – Qualification	26.1In the absence of prequalification, the procuring agency may determine to its satisfaction whether that selected Bidder having submitted the lowest evaluation responsive bid is qualified to perform the contract satisfactorily. 26.2The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Claus-7 as well as such other information as the Procuring agency deems necessary and appropriate. 26.3An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Procuring agency will proceed to the next lowest evaluated bid to perform satisfactorily.
27. Award Criteria	27.1The Procuring agency will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.
28. PA Right to Accept any Bid and to Reject any or All Bids	28.1 Subject to relevant provisions of SPP Rules 2010 (Amended 2013), the Procuring agency reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award. 28.2 Pursuant to Rule 45 of SPP Rules 2010 (Amended 2013), Procuring agency shall hoist the evaluation report on Authority's web site within seven days prior to notify the award of contract.
29. Notification of Award	29.1 Prior to the expiration of the period of bid validity, the Procuring agency shall notify the successful Bidder in writing, that its bid has been accepted. 29.2 Upon the successful Bidder's furnishing of the performance security pursuant to Clause 31, the Procuring agency will promptly notify each unsuccessful Bidder and will discharge its bid security.
30. Signing of Contract	30.1 At the same time as the Procuring agency notifies the successful Bidder that its bid has been accepted, the Procuring agency will send the Bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties. 30.2 Within fourteen (14) days, or any other period specified in BDS, of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the Procuring agency.
31. Performance Security	31.1Within seven **(07)** days, or any other period specified in BDS, of the receipt of notification of award from the Procuring agency, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the bidding documents, or in another form acceptable to the Procuring agency. 31.2Failure of the successful Bidder to comply with the requirement of Bid data sheet Clause 30 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Procuring agency may make the award to the next lowest evaluated Bidder or call for new bids.

32. fraudulent practices or Used Equipment	32.1 Under no circumstances the bidder shall provide used/repaired/refurbished or defected medical equipment. If such case happened then, the firm concerned will be black listed and earnest money/security deposit will be forfeited. 32.2 The Government of Sindh requires that Procuring agency's (including beneficiaries of donor agencies' loans), as well as Bidders/Suppliers/Contractors under Government-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the SPPRA, in accordance with the SPP Act, 2009 and Rules made there under: (a) **"Corrupt and Fraudulent Practices"** means either one or any combination of the practices given below; (i) "**Coercive Practice**" means any impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence the actions of a party to achieve a wrongful gain or to cause a wrongful loss to another party; (ii) "**Collusive Practice**" means any arrangement between two or more parties to the procurement process or contract execution, designed to achieve with or without the knowledge of the procuring agency to establish prices at artificial, noncompetitive levels for any wrongful gain; (iii) **"Corrupt Practice"** means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the acts of another party for wrongful gain; (iv) **"Fraudulent Practice"** means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation; b) **Obstructive Practice"** means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract or deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements before investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or acts intended to materially impede the exercise of inspection and audit rights provided for under the Rules.

33. DEFINITIONS	33.1 In this Contract, the following terms shall be interpreted as indicated: a) "The Contract" means the agreement entered into between the Procuring agency and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein. b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations. c) "The Goods" means all of the equipment, machinery, and/or other materials, which the Supplier is required to supply to the Procuring agency under the Contract. d) "The Services" means those services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Supplier covered under the Contract. e) "GCC" means the General Conditions of Contract contained in this section. f) "SCC" means the Special Conditions of Contract. g) "The Procuring agency" means the Sindh Public Procurement Regulatory Authority (SPPRA), Government of Sindh. h) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract. i) "SPP Rules 2010" means the Sindh Public Procurement Rules 2010 (Amended 2013). j) "Day" means calendar day.
34. Standards	34.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods' country of origin. Such standards shall be the latest issued by the concerned institution.
35. Patent Rights	35.1 The Supplier shall indemnify the Procuring agency against all third- party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof in the Islamic Republic of Pakistan.
36. Performance Security	36.1 Within seven (07) days, or any other duration as specified in SCC, of receipt of the notification of Contract award, the successful Bidder shall furnish to the Procuring agency the performance security in the amount specified in SCC. 36.2 The proceeds of the performance security shall be payable to the Procuring agency as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract. 36.3 The performance security shall be denominated in the Pak rupees and shall be an unconditional bank guarantee, pay order, call deposit as, provided in the bidding documents or another form acceptable to the Procuring agency; 36.4 The performance security will be discharged by the Procuring agency and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in SCC.
37. Inspections and	37.1 The Procuring agency or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no

Tests	extra cost to the Procuring agency. The Procuring agency shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes. 37.2 Should any inspected or tested Goods fail to conform to the Specifications, the Procuring agency may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Procuring agency. 37.3 The Procuring agency's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the Manufacturer. 37.4 Nothing in GCC Clause 37 shall in any way release the Supplier from any warranty or other obligations under this Contract.
38. Packing	38.1The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage.
39. Warranty & Spare parts	39.10 years free service including warranty from the date of installation and further 02 years free service without parts. Additionally assurance for the availability of spare parts for at least 08 to 10 years may also be confirmed by the bidder 39.2The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Procuring agency's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination. 39.3If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, within a reasonable period, the Procuring agency may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense without prejudice to any other rights which the Procuring agency may have against the Supplier under the Contract 39.4The Supplier should provide any or all of the notifications, and information pertaining to spare parts manufactured or distributed by the Supplier 39.5Free installation along with all accessories including labor charges/demonstration at consignee end must be borne by the bidder. 39.6The supplier will be bound to train nominated technical personnel (inland/outland) to operate/ repair and maintain the supplied equipment 39.7If the **up time percentage** for the measurement period (04months) shall fall short of 95% the following formula will be applied to determine additional days in the warranty / services contract period. a. 100%-95% No Penalty b. 95%- 90% The warranty period will be extendedby2.0 times the number of days as extra downtime c. 90%- 80% The warranty period will be extendedby3.0 timesthenumberof daysas extradowntime 39.8 The firm will be bound to make arrangement for availability of qualified

	technical staff in hospital/ site for prompt execution/coordination of after sale service
40. Delivery and Documents	40.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping/ transportation and/or other documents to be furnished by the Supplier are specified in SCC.
41. Insurance	41.1 The Goods supplied under the Contract shall be delivered consignee's end under which risk is transferred to the Procuring agency after having been delivered: hence insurance coverage is Supplier's responsibility.
42. Transportation	42.1 The Supplier is required under the Contact to transport the Goods to a specified place of destination and shall be arranged by the Supplier, and related costs shall be deemed to have been included in the Contract Price.
43. Incidental Services	43.1 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC: (a) performance or supervision of on-site assembly and/or start-up of the supplied Goods; (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods; (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods; (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract;
44. Payment Method	44.1 The method and conditions of payment to be made to the Supplier under this Contract shall be specified in SCC. 44.2 The Supplier's request(s) for payment shall be made to the Procuring agency in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed, and upon fulfillment of other obligations stipulated in the Contract. 44.3 Payments shall be made promptly by the Procuring agency, but in no case later than thirty (30) days after submission of an invoice or claim by the Supplier. 44.4 The currency of payment is Pak. Rupees.
45. Prices	45. Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid,
46. Contract Amendments	46.1 No variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.
47. Delays in the Supplier's Performance	47.1 Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the Procuring agency in the Schedule of Requirements. 47.2 If at any time during performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Procuring agency in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Procuring agency shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.

	47.3 Except as provided under **GCC Clause 48** a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages unless an extension of time is agreed upon pursuant to GCC Clause 47.2 without the application of liquidated damages.
48. Liquidated damages	48.1 Subject to GCC Clause 51, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Procuring agency shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Procuring agency may consider termination of the Contract pursuant to GCC Clause 49.
49. Termination for Default	49.1 The Procuring agency, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part: (a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring agency pursuant to GCC Clause 47; or (b) if the Supplier fails to perform any other obligation(s) under the Contract. (c) if the Supplier, in the judgment of the Procuring agency has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
50. Force Majeure	50.1 Notwithstanding the provisions of GCC Clauses 47, 48 and 49, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. 50.2 Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Procuring agency in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes. 50.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring agency in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring agency in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
51. Resolution of Disputes	51.1 Resolution of dispute shall be through Mechanism for Redressal of Grievances as provided in the rules or through Arbitration Act 1942.
52. Governing Language	52.2 The Contract shall be written in English language all correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.
53. Applicable Law	53.1 The Contract shall be interpreted in accordance with the SPP Rules 2010 (amended 2013).
54. Taxes and Duties	54.1 Supplier shall be entirely responsible for all taxes, duties (including stamp duty), license fees, etc., incurred until delivery of the contracted Goods to the Procuring

	agency.
55. Overriding effect of SPPRules 2010 (Amended 2013)	55.1In case of conflict or primacy of interpretation the provisions of SPP Rules 2010 (amended 2013) shall have an overriding effect not withstanding anything to the contrary contained in these bidding documents

Read and Agreed by M/s_____.

Name _____.

Signature with Stamp_____.

PART-IV

56. BID DATA SHEET

	Introduction
1	**Name of Procuring Agency:** Medical Superintendent , GMMMCH Sukkur
2	**Name of Contract. "Tender for Supply of & Installation of Medical Equipment/Instruments Machinery &GENERAL ITEMS"**
	Bid Price and Currency
3	Prices quoted by the Bidder shall be *"fixed" and in" Pak Rupees"*
	Preparation and Submission of Bids
4	*Selection Criteria / Responsiveness Criteria:* *1. The bidder should be sole agent/exclusive distributor of Manufacturer. Authorization for this tender will not be accepted.* *2. The bidder must have done at least Five (05) Contacts of similar nature. "Similar nature means Supply of equipment etc. (Please submit copy of PO/Contract Agreement/Notification of Award).* *3. The Bidder should not have been barred by any of Provincial or Federal Govt. Deptt., Agency, Organization or autonomous body or Private sector organization anywhere in Pakistan. (Submission of undertaking on 100/- legal stamp paper).* *4. The bidder must have turnover/sales exceeding 60 Million in PKR annually in any of last three years. (Submission of Audited Annual Reports or verifiable Letter or statement from the Bank.* *5. All the proposed products should be well known, well reputed brands and widely used for its quality, performance and reliability.* *6. Latest Income Tax Certificate (NTN), Valid GST Registration Certificate.* *7. Valid PNRA registration certificate (for x-ray items)* *8. Price offered for any item should be for the entire quantity demanded, partial quantity offers shall straight way be rejected.* **Note:** Bidder must provide necessary supporting documents as proof in respect of the selection criteria mentioned above.
5	**Amount of bid security.** 2% of Bid
6	**Bid validity period.** 90 days
6.1	**Bid validity** Clarification may be requested not later than **07 days** before the submission date For **Clarification of bid purposes** only, the Purchaser's address is: Attention: ***Medical Superintendent, GMMMCH Sukkur*** Address:
7	**Number of copies.** One original One copy
8	**Amount of Performance Guarantee of** @ 2% for Bid successful Bidder
9	**Deadline for bid submission.** 29-03-2018 at 12.00 NOON
10	**Bid Evaluation:** Lowest as best quality evaluated bid

Part-V

57. Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

57.1 Definitions (GCC Clause 33)

GCC 33 (g)—The Procuring Agency is: Office of the Medical Superintendent, Ghulam Muhammad Mahar Medical College Hospital, Sukkur

57.2 Performance Security (GCC Clause 36)

GCC36—The amount of performance security, as a percentage of the Contract Price, shall be: 5%.

57.3 Inspections and Tests (GCC Clause 37)

Representative of Procuring Agency or his nominee shall inspect the procured good and ensure that it meets the tender specifications before its acceptance

57.4 Delivery and Documents (GCC Clause 40)

GCC 42—Supplier shall supply and install the goods within 30 Days after signing the contract and shall submit the following.

(i) Supplier's invoice showing Goods' description, quantity, unit price, and total amount;
(ii) Packing List identifying the contents of Supply;
(iii) Delivery note.
(iv) Warranty and guarantee certificate;

57.5 Warranty (GCC Clause 39)

The equipment shall bear Standard warranty (with free parts & labor) from the date of installation / acceptance. Upon expiration of warranty, Purchaser at its option may enter into a Service Level Maintenance Agreement upon expiry of the warranty period in accordance with terms embodied in Appendix-A hereto

57.6 Payment (GCC Clause 44)

Hundred percent (100%) of the Contract Price shall be paid upon delivery, and satisfactory Installation, integration and testing of the products at the Project site (s), subject to the production of installation and Operational Acceptance certificates duly signed by authorized Representative.

57.7 Liquidated Damages (GCC Clause 48)

If the Supplier fails to deliver the goods or perform the services within the time period(s) specified in the contract, the Purchaser shall, without prejudice to its other remedies under the contract deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.07 percent of the Contract Price for each day of delay until actual delivery or performance, up to a maximum deduction of 10% of the Contract Price. Once the maximum is reached, the purchaser may consider termination of the contract.

57.8 Resolution of Disputes (GCC Clause 51)

In the case of a dispute between the Procuring agency and the Supplier, the dispute shall be referred to the dispute resolution mechanism as defined in rule 31, 32 and 34 of the (SPPRA 2010) Amended 2013

57.9 Applicable Law (GCC Clause 53)

GCC 29.1 Contract shall be interpreted in accordance with the Sindh Public Procurement law of Sindh.

Part-VI

58. SCHEDULE OF REQUIREMENTS

The delivery schedule hereafter expressed the date of delivery required.

S.No.	Product	Items Description	Quantity	Required Delivery Schedule from the Date of Contract Award	Location
1.	**Tender for Supply of & Installation of Medical Equipment/Instruments Machinery &General Items**				

Note: Specifications of above items are attached below.

Part-VII

59. SAMPLE FORM

TECHNICAL SPECIFICATIONS		
QUANTITY		
Bidder's response column must be filled either YES or NO. Bidders must attach Technical literature for item quoted		
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS		
Items	Specifications	Bidder Compliance
		Yes/No / If "No" indicate your Offer
Make	Specify	
Model	Specify	
Manufacturers literature	Specify	
Type	Specify	
& Other related specification		

Form-I

59.1 Letter of Acceptance

Date: _____

To:

Medical Superintendent

GMMC Hospital Sukkur

Dear Sir:

Having examined the bidding documents, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver the required item in conformity with the said bidding documents for the sum of *[total bid amount in words and figures]* or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we will obtain the guarantee of a bank in a sum equivalent to Five (5) percent of the Contract Price/Pay order for the due performance of the Contract, in the form prescribed by the Purchaser.

We agree to abide by this Bid for a period of 15days from the date fixed for Bid opening under Clause 5 of the Instructions to Bidders, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this _____ day of _____ 2017_____.

_____ _____

[signature] *[in the capacity of]*

Duly authorized to sign Bid for and on behalf of _____

Form-II

59.2. Price Schedule in Pak. Rupees

Name of Bidder _____ NIT Number _____ Page of _____

1	2	3	4	5		6	7
Item Name	Description	Country of origin	Quantity	Unit price Delivery Duty paid (DDP) / All Taxes		Total	Remarks (if any)
				Words	Figure		

Total Bid amount in words: _____

Total Bid amount in figure: _____

Signature of Bidder _____

Note:

(i) In case of discrepancy between unit price and total, the unit price shall prevail.

(ii) The unit and total prices Delivered at main Medical Store GMMMC Hospital , Sukkur should include the price of incidental services. No separate payment shall be made for the incidental services.

Form-III

59.3. Experience of Similar Supply and Installation

S. No	Assignment Description	Name /Contact Details of Client	Cost	Start Date	End Date	Remarks

(On stamp of 100 with 0.3% stamp duty) Form-IV

59.4. Contract Form

THIS AGREEMENT made the _____ day of _____ 20_____ between *MS GMMMC Hospital, Sukkur.* (hereinafter called "the Procuring agency") of the one part and *[name of Supplier]* of *[city and country of Supplier]* (hereinafter called "the Supplier") of the other part:

WHEREAS the Procuring agency invited bids for certain goods and ancillary services, viz., **Tender for Supply & Installation of Medical Equipment/Instruments Machinery &General Items 2017-18**. And has accepted a bid by the Supplier for the supply of those goods and services in the sum of *[contract price in words and figures]* (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSED AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

(a) the Bid Form and the Price Schedule submitted by the Bidder;
(b) the Schedule of Requirements;
(c) the Technical Specifications.
(d) the General Conditions of Contract;
(e) the Special Conditions of Contract; and
(f) the Procuring agency's Notification of Award.

3. In consideration of the payments to be made by the Procuring agency to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Procuring agency to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract

4. The Procuring agency hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

INWITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by _____ the _____ (for the Procuring agency)

Signed, sealed, delivered by _____ the _____ (for the Supplier)

59.6. Manufacturer's Authorization Form

To:

Medical Superintendent

GMMMC Hospital Sukkur

WHEREAS *[name of the Manufacturer]* who are established and reputable manufacturers of *[name and/or description of the goods]* having factories at *[address of factory]*

Do hereby authorize *[name and address of Agent]* to submit a bid. and subsequently sign the Contract with you against NIT No. *[reference of the Invitation to Bid]* for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per Clause 44 of the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids.

[signature for and on behalf of Manufacturer]

Note: This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.

60. **PURCHASER'S RIGHT TO VARY QUANTITIES AT TIME OF AWARD.**

The purchaser reserve the right to increase/decrease or delete the quantities of goods etc at the time of award of contract and also reserve the right to enhance the quantity goods and services originally specified in the schedule of requirements without any change in unit price of other terms and conditions of goods at any time during contract period.

61. **UNDERTAKING**

61.1 That I/We agree whether our tender accepted for total, partial or any single item. I/We also agreed to supply and accept the said item at the rates for the supply of contracted quantity within the stipulated period shown in the contract.

61.2 I/ We understand and confirm the refund of cost different if the same good is/was supplied at lower rates to any other Government/Semi Government Institution in the Province in same fiscal year.

61.3 I/ we undertake that: that If any of the information submitted in accordance to this tender Enquiry found in correct our contract may be cancelled at any stage on our cost and risk.

62. **CERTIFICATE**

We guarantee to supply the stores exactly in accordance with the requirement specified in the invitation to this tender

Signature& Stamp of Contractor_____

Name_____

Designation_____

Address_____

LIST OF MACHINERY AND EQUIPMENT FOR ESTABLISHMENT OF 24 BEDDED MEDICAL ICU AT GMC HOSPITAL SUKKUR

ANNEXURE (A)

ITEM NO. 01

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ICU VENTILATOR	Qty	12

SPECIFICATION:

ICU Ventilator for Medical ICU with advance servo controlled.
Suitable for Adult and Pediatric patients.
Invasive and non-invasive technology.
10 to 15 inch or more touch screen display with internal turbine system
Turbine life should 7 to 8 years
Battery backup support for 120 minutes or more.
Should have real time monitoring.
Modes of Ventilation: Assisted Control Mandatory Ventilation (CMV).
Synchronized Intermittent Mandatory Ventilation (SIMV)
Spontaneous Ventilation.
Body Weight Calculator for set the tidal volume and other ventilator parameters.
Volume-controlled.
Pressure-controlled.
Volume Targeted Pressure-controlled
Dual Level PEEP (SPAP)
Auto Control
Apnea back-up ventilation.
Active Exhalation Valve
Automatic Leak Compensation (up to 60 Lpm or more).
Auto set alarm feature up to 1000 or more Event log.
Tidal volume: 5 ~ 2000 ml or better.
Respiratory rate: 1 ~ 120 bpm or better.
Pressure control: 10 ~ 80 cmH^2O or better.
Pressure support: 0 ~ 80 cmH^2O or better.
Peak flow: 1 ~ 120 lpm or better.
Inspiratory Time: 0.2 ~ 8 sec or better.
Oxygen concentration: 21 ~ 100%
Display parameter: Delivered oxygen concentrations 21 - 100%.
Trend Data up to 72 hours or more
More than 35 monitoring parameters.
Real Time Graphics, Volume vs Time, Pressure vs Time, Flow vs Time, Flow Volume Loops, Pressure Volume Loops.
Capable of providing adaptive support system
Humidification Selection (HME, Humidifier, and None)
To be supplied with all standard accessories.
OR EQUIVALENT
FDA AND CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 02

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	MULTIPARAMETER MONITOR	Qty	25

- **DISPLAY**
- 12.1" Color TFT-LCD TOUCH SCREEN OR MORE
- Resolution 800 X 600 pixels or higher

- **POWER SUPPLY**
- Power Voltage AC 100-240V 50/60Hz
- Power Imput ≤ 85VA
- Fuse: T1.6AL/250V, Φ5X20 (mm)
- Safety class: Category I

- **BATTERY**
- Type: rechargeable Sealed LITHIUM, 12V/2.0AH
- Charge time: ≤ 10 hours (2 batteries for 20 hours)
- Operating time under normal use and full charge:
- ≥ 60 minutes (2 batteries for 120 minutes)
- Operating time after the first alarm if low battery: 5-15 minutes

- **THERMAL RECORD (OPTION)**
- Method: thermal dot array
- Paper width: 50mm (1.97 in)
- Paper Speed: 12.5/25/50 (mm/sec)
- Traces Maximum: 3 tracks

- **SYSTEM OUTPUT**
- Ethernet Network standard RJ45 socket
- RF Wireless LAN: 433MHz, 10mW (option)
- Defibrillation Output: Option
- Video Output: Option

- **ALARM**
- Three Level: Low, medium and high
- Indication: Auditory and visual
- Setup: Default and custom
- Silence: All alarms can be silenced
- Volume: 45~85 dB measured at 1 meter

- **TREND**

- Store & review 168 hours trend data and trend maps
- Parameter option: HR, SpO2, NIBP, PR, Resp, CO2, Temp1,
- Temp2, AA, N2O, O2, IBP1, IBP2, ST.
- Cycle intervals of trend storage 1min, 2min, 3min, 4min, 5min,
- 10min, 15min, 20min, 25min, 30min.

- **STORE & REVIEWING**
- ECG: 30 minutes one important lead's ECG waveform
- Alarm: 1800 groups Alarm events reviewing
- NIBP: 1000 groups NIBP measurement
- Arrhythmia: 128 groups data (8 seconds ECG waveform)

- **ENVIRONMENT**
- Working temperature: 0~+40°C
- Transportation and storage temperature: 20~+55°C
- Relative humidity: Working ≤ 85% Transportation and storage ≤93%
- Atmospheric pressure: Working 860~1060 hPa
- Transportation and storage 500~1060 hPa

- **STANDARD CONFIGURATION:**
- ECG, HR, RESP, NIBP, SpO2, PR, TEMP, Battery Lead-acid

- **OPTION:**
- Litium battery, 2-TEMP, 2-IBP, Recorder, EtCO2 (side stream, main stream),
- Anesthetic Gas, Nellcor SpO2, ICG

- **ECG**
- Mode: 5-leads (standard); 3-leads
- Lead selection: I, II, III, aVR, aVL, aVF, V1~V6 (option)
- Gain: AUTO, 0.25x, 0.5x, 1.0x, 2.0x, 4.0x
- Insulation Breakdown Voltage 4000VAC 50/60Hz
- Sweep speed 12.5mm/s, 25mm/s, 50mm/s
- HR Range: 10~300 bpm
- HR Accuracy ± 1% or ± 1 bpm, whichever is greater

- **ST SEGMENT**
- Measurement Range – 2.0mV~2.0mV
- Resolution 0.01mV

- **RESP**
- Method: Impedance variation between RA-LL (R-F)
- Measurement Range: 0~150 rpm
- Accuracy: ±2 rpm

- Gain: x1, x2, x4
- Sweep speed 6.25mm/s, 12.5mm/s, 25mm/s

- **TEMP**
- Measurement Range: 25.0~50.0°C
- Unit: Celsius (°C), Fahrenheit (°F)
- Accuracy: ±0.1°C (exclusive of probe)
- Connecting cable: Compatible with YSI-400

- **SpO2**
- Measurement Range 0~100%
- Accuracy 70~100%, ±2%
- 0~69%, unspecified
- PR Range 25~250 bpm
- PR Accuracy ±1% or ±1 bpm, whichever is greater

- **NIBP**
- Technique: Automatic oscillometry
- Range: Adult: 10~270 mmHg
- Child: 10~235 mmHg
- Neonate: 10~135 mmHg
- Accuracy: Static ±2% or ±3 mmHg, whichever is greater
- Unit: mmHg, kPa
- Pulse rate range: 40~240 bpm
- Intervals for AUTO measurement: 1,2,3,4,5,10,15,20,30,60,90
- minutes 2,4,8 hours

- **IBP (OPTION)**
- Channel: 2
- Measurement Range: -50~ +300 mmHg
- Unit: mmHg, kPa
- Accuracy: ±2mmHg or 2%, whichever is greater

- **EtCO2 (OPTION, Sidestream, LoFlo)**
- Range 0~19.7% (0 ~ 150 mmHg)
- Unit: %, mmHg, kPa
- Respiration Rate Range 2~150 bpm

- **SIZE AND WEIGHT**
- Size 318mm X 264mm X 152mm
- Weight 4.5kg

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 03

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DEFIBRILLATOR	**Qty**	**06**

- 360 J energy, Biphasic Waveform Technology
- 7" color graphic TFT LCD display or better.
- Built-in standard 12-lead ECG
- Synchronous or asynchronous mode
- Semi-automatic (AED) or manual control
- Operation from paddles
- Short charging time less than 5 sec or better
- Charging time for fast action start from 2.7 secs to 200 J , 4.5 secs to 360 J
- Alarm functions
- Should have 3-channel high-resolution recorder or better.
- Should have **Pacemaker with** Mode Demand (VVI), Fixed Rate (VVO), Type Transthoracic non-invasive, Waveform Rectilinear, constant current
- Pulse Width 40 msec, Current Amplitude 0 and 20..200 mA, 1 mA resolution
- Rate 30..200 ppm, 1 ppm resolution
- Patient Impedance Range 0..1000 ohms with indicator
- Should have Optional upgradeable for ETCO2 , SpO2, NIBP
- Should have available option any time upgradeable for electrodes for internal defibrillation.
- Battery Capacity More than 5 hours continuous monitoring or 200 shocks at 200J Indicator 5-stage indicator on screen and LED indicator when turned off, Must be Charge time Less than 2 hours for full charge.
- Report Browser Software On PC, from exported USB data

OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 04

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	INFUSION PUMP	Qty	25

SPECIFICATION

Display: 4.3" LCD TFT touch screen, 10 levels display brightness contrast

Infusion mode: 7 modes available: ml/h, body weight, drip, loading dose, ramp, sequence and

relay mode

Micro mode: 100 ml to 1200ml programmable

Infusion rate range: 0.01 – 1200 ml/h with min. increment 0.01 ml/h

System Accuracy: ≥1ml/h,±5%

KVO Rate: 0.01 - 5.00ml/h, default value is 1 ml/h

Minimum flow rate increment: 0.01ml/h

Bolus: Manual bolus and programmable bolus, anti-bolus support

Bolus volume: Minimum 0.1ml, max 50ml

VTBI (volume to be infused): 0-9999ml, minimum step is 0.01ml

Total Volume Infused: 0.01-9999.99ml, minimum step is 0.01ml

Time Range: 1min-99hrs59min

Purge: 1200 ml/h

Air detection: 7 levels, sensitivity 20μl

Occlusion levels: 12 levels, upstream and downstream occlusion

History records: More than 5000 records

Other functions: Nurse call, RS232, data export

Interface: Mini USB

Dimensions: 234(W)*99(D)*120(H) mm

Weight: 1.8kg

Power Supply

AC power supply: AC 110/240V, 50/60 Hz

Input power: 50 VA

DC power supply: DC 15V lithium battery

Specification: 11.1V 2600mAh

Charging time: 5h (under OFF state)

Working time: ≥9h (after completely charging the new battery, when the environment temperature is 25°C and flow rate is 25ml/h, the constantly working time)

Alarm

Visual and audible alarms information: VTBI near end, VTBI infused, Pressure high, Check upstream, Battery nearly empty, Battery empty, No battery inserted, No power supply, Reminder alarm, Standby time expired, KVO finished, Drop sensor connection, Drop error, Air bubble, Door Open

Environment

Operating: temperature: 5-40° C

humidity: 20-90%, non-condensable

atmospheric pressure: 86-106kPa

Transport & Storage: temperature: -20-60° C

humidity: 10-95%, non-condensable

atmospheric pressure: 50-106kPa

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED

USA/EUROPE/JAPAN/UK

ITEM NO. 05

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ABG MACHINE	Qty	01

- Display: 5.4'' LCD-display, illuminated, 15-lines, 30 characters
- Measured Parameters: pCO2 , pO2 , K+ , Na+ , Li+ , Cl- , Ca++, pH, Glu, Lac, tHb, barometric pressure
- Calculated Parameters: HCO3 -A, HCO3 -S, BE, BEecf (SBE), TCO2 , BB, O2 sat, O2 CT, P50, AaDO2 , Hct, H+ , AGAP, SHUNT, Acid-Base Status
- Throughput: Up to 80 tests/hour depending on configuration
- Sampling Method: Aspiration system adapted for both capillary and syringes, cleaned with Rinse Solution automatically
- Sample Volume: 50-200 µl depending on measured parameters
- Sample Types: Whole Blood, Arterial Blood, Urine, Serum, Plasma,Respiration Gas
- Calibration: 2-Point calibration in standard and economy modes suited to your working hours.
- Measurement Temperature of Electrodes and Sensors: Electrodes and Sensor temperature automatically adjusted to 37.0°C ± 0.2 during measurements.
- Data Capacity: 2 GB SD Card, 32000 measurements and QC data sets
- Built in printer

OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 06

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ULTRASOUND MACHINE WITH PROBE	Qty	01

General Specification

Main Applications: general applications, abdomen, OB, GYN, peripheral vessel, small part, musculoskeletal system, urology, rectal, vaginal, pediatrics, cardiac and interventional ultrasound applications, support quantitative analysis.

Monitor: LCD 19'' high resolution non-interlaced monitor, special for medical imaging, support up and down, left and right rotation, LCD 10.4" touchscreen (optional 15" monitor)

Probe Connectors: 4, all activated, automatic recognition.

Power: AC 220V±10%, 50Hz±1Hz

Mean Features

Beam Processing: full-digital Beam Former, more than 1536 digital processing channels, Continuous Dynamic Focus, Real-time Dynamic Aperture, Dynamic Beam Apodization, Dynamic filtering.

Gray Scale: Imaging Digital Two-dimensional Gray Scale Imaging Unit
Spectral: Digital Spectral Doppler Display and Analytic Unit
Color Doppler Imaging: Digital Color Doppler Imaging Unit, including CFM, CDE, Dir. CDE, pulsed Wave Doppler, Continuous Wave Doppler.
Doppler Measurement: manual, automatic, quantitative, semi-quantitative calculation, automatic and real-time Doppler spectral envelop.
2D Deflection: left/right deflection imaging (linear probe), deflection angle: -20° +20°, multi-level adjustable.
Real-time Contrast of imaging of 2D and color Doppler: real-time contrast and observation of two dimensional image and color doppler image.
Harmonic Imaging: Digital Harmonic Imaging, Turning (one button optimizing) &TDI.
Duplex & Triplex Imaging Panoramic Trapezoid: support.
Wide View Imaging: support.
Integration of three-dimensional imaging: support 3D and 4D.
Probe Specifications
Probes:
Convex (2.0/6.0 MHz)
Linear (6.5/16.0 MHz)
Endocavity (4.0/8.0 MHz)
Phased Array (2.0/6.0 MHz)
Micro-convex
Electronic 4D probe
Probe Characters: Super Broadband Multi-frequency Probe
Biopsy Guide: support
2D image parameters
2D Working Frequency: broadband frequency conversion point≥5.
Frequency Range: 2.0MHz - 16.0 Mhz. 2D working frequency can be displayed by figure and adjusted separately.
Display Mode: B, B/B, 4B, B/M, M mode in real-time and freeze state.
Gray Scale: 256.
Resolution: lateral resolution ≤ 1 mm, axial resolution ≤ 1 mm, (under 3.5MHz, depth ≥ 80mm circumstance).
Dynamic Range: 160db, 40db~160db is visible and adjustable.
THI: 6 groups THI (two each on convex probe, linear probe and phased array probe)
Scan Line Control of M type: M mode scanning line capable of rotating 360°around any point on the scanning line.
Gain Adjustment: B/M, B/D can be adjusted separately.
TGC: 8 bands
Zoom: real-time partial magnification, position removable, 10 times magnification, 16 levels adjustable. Max. Display Depth ≥30cm.
Spectral Doppler
Mode: PW, CW/TDI

Blood Flow Rate: PWD: Max. Measurable velocity ≥ 8m/s, CWD: Max. Measurable velocity ≥ 8m/s, Min. Measurable Velocity ≤ 2mm/s (Non-noise signal.
Display Mode: B/D, M/D, D, B/CFM/D
Sampling Width: 1mm - 25mm
Display Control: reverse display (left/right, up/down), Baseline adjustable up and down, D Extension, B/D Extension, partial magnification.
Color Doppler
Display Mode: speed, Energy, Speed+Direction, B/CFM B/CFM/PW B/CFM/M B/CFM/CW
Display Angle: ≥85°
Frame Rate: detectable depth 24cm, full angle, Max 200frame/s
Display Control: baseline adjustable in 16 levels, B/CFM contrast.
Others
Cineloop: Image retrieval, cineloop playback ≥ 1536 frames, playback time ≥ 100s.
RTDT: Real-time dynamic transfer of images and videos.
SVVR: Super volume video recording up to 1 hr.
Archiving and Record: Management System ≥250GHDD, DVD-RW, USB Disk storage, Built-in ultrasound workstation system (create, store, modify, inquire and print the patient report., which also has expert thesaurus, report templates, etc. Display, store and play image or cine.
Bodymark: ≥95 types, with probe location
Acoustic Power: ≥32 levels adjustable
Interface: different languages (English, French), Hospital Name, Patient ID, Name, Gender, Age, Date, Time, Probe Model, Probe Frequency, Focus, Gain, Depth.
Data Communication: DICOM3.0, Dual USB2.0, DVD-RW
Signal Input and output: AV, S-video, RGB, USB digital signal, VGA, ECG, RS-232. Support PAL, NTSC video standard. Support nearly all printers, including laser printer, digital video printer, analog video printer.
Software: powerful Measurement Software Package, Integrated Ultrasound Workstation, Specialized Software for 3D/4D.
OR EQUIVALENT
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ITEM NO. 07

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DOUBLE OXYGEN LINE	Qty	01
	Supplying / Installation of complete Medical Engineering System Comprising		

of: -

COPPER PIPE

- Imported Copper Pipe 18 Swg.
  de – Oxidised, de – greased, half – hard,
  solid drawn with required copper fittings
  as follows: -

Size	1"	-	Rft.
	3/4"	-	Rft.
	1/2"	-	Rft.

- **OUTLET POINTS**
  Medical Gases Outlet Points,
  Surface Type, wall – mounted
  In accordance with the Healthcare
  Technical Memorandum
  HTM 2022
  - Oxygen Outlet
  - Air Outlet – 4 bar
  - Nitrous Oxide
  - Vacuum Outlet Points
  - Air Outlet 7 bar

  (U.K/U.S.A/JAPAN)

- **ISOLATION VALVES**

  Isolation Valves with adaptor.

Size	3/8"
	1/2"
	3/4"
	1"

  (U.K/U.S.A/JAPAN)

- **MEDICAL AIR PLANT SYSTEM**
  Oil Free Air Compressor System
  Comprising of: -
  I) 02 Nos. Air Compressor Sysetm
  15 HP (One in use and other stand by)
  II) 02 Nos. Refrigerated Air Dryers
  III) 02 Nos. Pre- Air Filter (5 Micron)
  IV) 02 Nos. After Air Filter (1 Micron)

  (U.K/U.S.A/TAIWAN/KOREA/JAPAN)

- **BY PASS SYSTEM**

By pass system with
Network of pipeline system and
Isolation Valves to connect the stand
By Compressor and refrigeration dryer
In case of emergency. (LOCAL)

- **CONTROL PANEL**
  Change over electric control panel
  Complete with installation for
  Compressor and Dryer.
  (LOCAL)

- **OXYGEN SUPPLY MANIFOLD**
  The Manifold is a to switch from bank in use to reserve
  Bank without fluctuation in delivery supply line pressure
  and without the need for external power. After the switch-over
  the "reserve" bank becomes the "bank in use" and the bank in
  use becomes the reserve bank.
  The system is able maintain continuous supply 1500LPM
  Capacity (2 x 10) with capacity of 180 M3/H set of connection
  for cylinders/Hp. Valves , discharging valves, tell pipe
  Make: Local with Imported parts

- **NITROUS OXIDE MANIFOLD (LOCAL)**
  The Manifold is a to switch from bank in use to reserve
  Bank without fluctuation in delivery supply line pressure
  and without the need for external power. After the switch-over
  the "reserve" bank becomes the "bank in use" and the bank in
  use becomes the reserve bank.
  The system is able maintain continuous supply 1500LPM
  Capacity (2 x 4) with capacity of 50 M3/H set of conection
  for cylinders/Hp. Valves , discharging valves, tell pipe
  Make: Local with Imported parts

- **ZONE SERVICE UNITS (LOCAL)**
  Zone Service Unit complete box
  With Imported Isolation Valve and adaptor.

- **MEDICAL GAS ALARM**
  Supplying and installation of Alarm
  System of different Gases
  With mute / test facility, gives
  Sound and flash light whenever
  The pressure in line decreases
  The set pressure for individual

Gas i.e
- Oxygen -
- Medical Air 4 bar -
(LOCAL)

- **FLOWMETER SET**
  Oxygen Flowmeter O – 15 LPM
  Complete with Humidifier and probe
  (U.K/U.S.A/JAPAN)

- **SUCTION INJECTOR UNIT**
  Complete with 02 Ltrs (2000ml)
  Collection jar and probe
  (U.K/U.S.A/JAPAN)

OR EQUIVALENT

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ITEM NO. 08

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DOUBLE VACCUM SYSTEM	Qty	01

Compatible to central oxygen system)

-THE SYSTEM SHOULD BE JOINT WITH SURGICAL ICU.

OR EQUIVALENT

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ITEM NO. 09

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	CRASH TROLLEY	Qty	04

- Should be made in steel painted with epoxy resin with four castors with brakes.
- Should have four drawers of 310 x 400 x 470 mm.
- Should have tray with size of 400 x 400 mm or better support 25 kg or better.
- Should have two side rails.
- Oxygen and suction regulator, flowmeter 0-15 L/min or better.
- Venturi suction device (60 cmHg – 600 mbar) or more

- Collection jar 1 liter or more.
- Manual resuscitator for adults with two face masks (adult and child).
- One IV Pole which can be placed at both sides of the cart.
- Should have cardiac massage board.
- Dimensions: 1400 x 470 x 680 mm.

OR EQUIVALENT
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ITEM NO. 10

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PORTABLE X RAY MACHINE 100MA	Qty	01

- High frequency X-Ray inverter type Generator
- Having output power of 4kW or more
- X-Ray tube protections, KVP range: 40-110kV or more
- MA Range: 10-100mA or better, mAS range: 1.0-200mAs or better
- Centering light indicator
- Standard power supply cable,
- X-ray exposure switch cable,
- Vertical movement of the Arm to lower or raise the tube collimator assembly
- Rotation of the Collimator with reference to the power module (+/- 90deg) or better.

OR EQUIVALENT
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ITEM NO. 11

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	LARYNGO SCOPE	Qty	02 SETS

UltraSafeTM Standard
UltraSafeTM Mini
UltraSafeTM Paediatric
UltraSafeTM Stubby
Batteries
C
AA
N
AA
OR EQUIVALENT

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ITEM NO. 12

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	AMBO BAG SILICON	Qty	05
Bag volume: Adult (1475 ml), Pediatric (635 ml), Neonate (220 ml) Dimensions: Adult (295x127 mm), Pediatric (234x99 mm), Neonate (165x70 mm) Weight: Adult (350 g), Pediatric (230 g), Neonate (112 g) (including reservoir and mask) Additional detailed specification can be found in the datasheets OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 13

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	B.P APPRATUS	Qty	20
The maximum number of cuff inflations for each SP in the mercury measurement is **five,** counting all MIL attempts and blood pressure attempts. The rationale for this is twofold: to minimize the discomfort to the SP of frequent cuff inflations and to accomplish data collection for this measurement within the time allowed. OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 14

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	FOOD TROLLEY	Qty	05
• Latest Technology • Good quality • Standard Size • State of the art manufacturing • Brochure must be provided • Must be portable easily with Trolley tyres Breakfast, Lunch and Dinner Oriented OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 15

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	BIPAP VENTILATORS	Qty	04

- Environmental operating Temperature from 5 °C to 35 °C or more and storage temperature capacity from -20 °C to °C or more and non-condensing capability.
- Standard physical dimension.
- Atmospheric pressure from 101 to 77 kPa or more.
- General requirements for safety of Medical and electrical equipment.
- Electromagnetic compatibility RTCA / DO -160F
- Protection against electric shock type BF
- Auto pressure accuracy Bi-level I Bi-level pressure.
- With Full Face Mask, software CD, Data storage and review facility and more
- Modes should be CPAP, Spontaneous, Spontaneous/Timed, Timed, Pressure Control with average volume assured pressure support feature.
- Features of average volume assured pressure support to automatically adapt to disease progression and changing patient needs on desire.
- Displayed parameters like Patient pressure, leak, tidal volume, minute ventilation, and respiratory rate.
- Patient alarms like Patient Disconnection, Apnea, Low Minute Ventilation, Low Tidal Volume - option for Heated Humidification.
- Inspiratory time 0.5 to 3.0 seconds
- IPAP 4 to 30 cmH2O
- EPAP 4 to 25 cmH2O
- Target tidal volume 200 - 1500 ml
- Breath rate 0 - 30 bpm

OR EQUIVALENT
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ITEM NO. 16

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	WARMER	Qty	02

- Blood warmer with display
- Control to Monitor and manage transfusion (blood) temperature.
- Automatically Cutoff/Stop, Audible & Visual Alarms for low/ overheating
- Should Heat liquids without risk of contamination
- Self-tests and error display
- Setting of temperature from 37 °C to 41 °C in 0.5 °C increments
- Automatic adaption of the heating control system
- Should meet AABB Guidelines for use of blood warming device
- Current : 6 A
- Protection against electric shock and ingress of liquids

- Should have multiple independent cut- off from 42°C

OR EQUIVALENT
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ITEM NO. 17

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	BLOOD WARMER	Qty	02

- Blood warmer with display
- Control to Monitor and manage transfusion (blood) temperature.
- Automatically Cutoff/Stop, Audible & Visual Alarms for low/ overheating
- Should Heat liquids without risk of contamination
- Self-tests and error display
- Setting of temperature from 37 °C to 41 °C in 0.5 °C increments
- Automatic adaption of the heating control system
- Should meet AABB Guidelines for use of blood warming device
- Current : 6 A
- Protection against against electric shock and ingress of liquids
- Should have multiple independent cut- off from 42°C

OR EQUIVALENT

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ITEM NO. 18

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	NEUBILIZER MACHINE	Qty	12

- Latest and state of art
- Ultrasonic energy for uniform and highly dense 1 - 5 microns or more.
- More than 96% of 0.3 micron or larger air borne dust particles is effectively shut out with the air filter to provide purified air for aerosol nebulization. Medication cup with replaceable diaphragm.
- Easily detachable fan cover and pneumoclean (Air filter).
- Made of highly resistant sterilizable resin.
- Stand with solution bottle for safety.
- Nebulizing rate: 4 ml/min or greater.
- Mist particle size: approx. 1 – 5 microns.

- Nebulizing times setting: 1 – 30 min& continuous
- Medication cup capacity: 150 ml.
- Accessories:
- Tray set for nebulizer with tray track and pole mount fitting.

OR EQUIVALENT

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ITEM NO. 20

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ECG MACHINE 6 CHANNEL	Qty	02

- One time record : 3/6 channels
- Width of record : 112mm
- Outside USB printer : printout A4 (210x297)
- Record speed : 5/10/25/50 mm/s
- Sensitivity : 2,5/5/10/20 mm/mV
- Digital filtration of disturbances : 25,35,50,60 Hz
- Display : 5,7" graphic, color TFT 320x240
- Analysis and interpretation : HES compliant with EN 60601-2-51
- Internal memory : >300 tests
- Alphanumeric keyboard
- Detection of stimulator impulses (pacemaker)
- Automatic regulation of isoelectric line
- Constant measurement of heart action (HR)
- Acoustic signalization of detected stimulations
- Paper easy-load
- Record of test copy on PENDRIVE, in standard EN1064 (ECG-SCP)
- Signalization of wrong connection with particular electrodes
- Available versions in national languages
- CMMR : >100dB
- Sampling Frequency : 1000 Hz
- Converter : 12bit
- Resolution : 0,25uV/bit
- Input impedance : >10 MΩ
- Dynamic range : 10mVpp
- Frequency band : 0,05-150 Hz
- Leads : 12 standard/ Cabrera
- Input channels : floating, protected from impulse defibrillating CF
- Power : 90-240V, 50/60Hz
- Inside rechargeable battery: Li-ion 7,2V; 2200mAh Li-ion

- Power consumption : <30VA
- Dimensions: 260W x52H x220D mm
- Weight : < 1,8 Kg
- Fulfilled standards : EN 60601-1, EN 60601-1-2, EN 60601-2-25,
- EN 60601-2-51
- Safety : protection type CF (EN60601-1) Class I
- Class / Group : Class A / Group 1 (CISPR-11)
- Operating environmental conditions :
  - Temperature +10 to +40 °C
  - Relative humidity 25 to 95% (non-condensing)
- Patient cable
- Electrodes set
- Gel flacon - Paper roll
- Power cable
- User manual
- PC software for data management
- Carryng case

OR EQUIVALENT

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ITEM NO. 21

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	VITAL SIGN MONITORS	Qty	20

TECHNICAL SPECIFICATION	
Size	125x299x130mm
Weight	1.25kg
Displaytype / size	LED 100 x 120mm
Power voltage	100 -240VAC
Power frequency	50/60 Hz
Input current	0.15-.03A
Battery type / capacity	lithium ion, 11.1V, 2200 mAh
Thermometer battery type/ capacity	LR03 (AAA x 2) 1.5 VDC
Patient groups	Adult, Paediatric& Neonate
NiBP	Oscillometric
SpO_2	0% to 100%, 1% resolution
Temperature (option)	Tympanic, 34°C to 42.2°C (93.2°F to 107.6°F)

OR EQUIVALENT
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ITEM NO. 22

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	AIR MATTRESS	Qty	05
Latest technology Commodity Size 1940*840*80 mm Packing Size 1940*900*80 mm CBM 0.13 Material: waterproof, mold proof, ventilate cover, sponge ,palm fiber OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 23

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	UV LIGHTS	Qty	08
• Latest Technology • Good quality • Standard Size • State of the art manufacturing • Brochure must be provided • Must he portable • As used worldwide mostly in the field of Hospitals OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 24

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	X-RAY ILLIMINATOR	Qty	04
• Latest Technology • Good quality • Standard Size • State of the art manufacturing • Brochure must he provided • 2 in 1 Horizontally or more • Must be Digital latest LED lights. OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 25

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ELECTROLYTE ANALYZER	Qty	01

Measuring Method: ISE
Measuring Test: Serum K^+, Na^+, Cl^-, Ca^{++}, pH
Measuring Units: mmol/L

K^+: 0.50-15.00 0.01; CV≤1.0%
Na^+: 30.0-200.0 0.1; CV≤1.0%
Cl^- : 30.0-200.0 0.1; CV≤1.0%
Ca^{++}: 0.10-50.00 0.01; CV≤1.0%
pH: 6.0-9.0 0.01; CV≤1.0%

Measuring Time: Less than 30 sec
Sample Size: 100µL
Communication Interface: RS-232
Display: LCD
Printer: Built in Thermal
Power Supply: 220 -240 VAC 50/60Hz
Calibration: Automatic or On Demand

OR EQUIVALENT

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ITEM NO. 26

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	STEAMER	Qty	04

- Base ø 55 cm - Arm 50 cm
- Height 105-130 cm
- Material ABS
- 220 – 240 V 700W 50/60 Hz. The Viso steamer is ideal for performing deep cleansing facial treatments.
- The unit takes advantage of the dilating effect of stream, which can also be supplemented with ozone.
- The stream delivery nozzle on the arm can be positioned as desired, and the rolling stand allows the unit to be moved effortlessly.
- Also equipped with a timer and a safety system that shuts off the unit if it runs out of water or if the thermostat fails.

OR EQUIVALENT

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MACHINERY EQUIPMENT FOR ESTABLISHMENT OF 24 BEDDED SURGICAL ICU AT GMC HOSPITAL SUKKUR

(B)

ITEM NO. 01

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ICU VENTILATOR	Qty	06

SPECIFICATION:

ICU Ventilator for Medical ICU with advance servo controlled.
Suitable for Adult and Pediatric patients.
Invasive and non-invasive technology.
10 to 15 inch or more touch screen display with internal turbine system
Turbine life should 7 to 8 years
Battery backup support for 120 minutes or more.
Should have real time monitoring.
Modes of Ventilation: Assisted Control Mandatory Ventilation (CMV).
Synchronized Intermittent Mandatory Ventilation (SIMV)
Spontaneous Ventilation.
Body Weight Calculator for set the tidal volume and other ventilator parameters.
Volume-controlled.
Pressure-controlled.
Volume Targeted Pressure-controlled
Dual Level PEEP (SPAP)
Auto Control
Apnea back-up ventilation.
Active Exhalation Valve
Automatic Leak Compensation (up to 60 Lpm or more).
Auto set alarm feature up to 1000 or more Event log.
Tidal volume: 5 ~ 2000 ml or better.
Respiratory rate: 1 ~ 120 bpm or better.
Pressure control: 10 ~ 80 cmH^2O or better.
Pressure support: 0 ~ 80 cmH^2O or better.
Peak flow: 1 ~ 120 lpm or better.
Inspiratory Time: 0.2 ~ 8 sec or better.
Oxygen concentration: 21 ~ 100%
Display parameter: Delivered oxygen concentrations 21 - 100%.
Trend Data up to 72 hours or more
More than 35 monitoring parameters.
Real Time Graphics, Volume vs Time, Pressure vs Time, Flow vs Time, Flow Volume Loops, Pressure Volume Loops.
Capable of providing adaptive support system
Humidification Selection (HME, Humidifier, and None)
To be supplied with all standard accessories.
OR EQUIVALENT
FDA AND CE/JIS APPROVED
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ITEM NO. 02

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	MULTIPARAMETER MONITOR	Qty	25

- **DISPLAY**
- 12.1" Color TFT-LCD TOUCH SCREEN OR MORE
- Resolution 800 X 600 pixels or higher

- **POWER SUPPLY**
- Power Voltage AC 100-240V 50/60Hz
- Power Imput ≤ 85VA
- Fuse: T1.6AL/250V, Φ5X20 (mm)
- Safety class: Category I

- **BATTERY**
- Type: rechargeable Sealed LITHIUM, 12V/2.0AH
- Charge time: ≤ 10 hours (2 batteries for 20 hours)
- Operating time under normal use and full charge:
- ≥ 60 minutes (2 batteries for 120 minutes)
- Operating time after the first alarm if low battery: 5-15 minutes

- **THERMAL RECORD (OPTION)**
- Method: thermal dot array
- Paper width: 50mm (1.97 in)
- Paper Speed: 12.5/25/50 (mm/sec)
- Traces Maximum: 3 tracks

- **SYSTEM OUTPUT**
- Ethernet Network standard RJ45 socket
- RF Wireless LAN: 433MHz, 10mW (option)
- Defibrillation Output: Option
- Video Output: Option

- **ALARM**
- Three Level: Low, medium and high
- Indication: Auditory and visual
- Setup: Default and custom
- Silence: All alarms can be silenced
- Volume: 45~85 dB measured at 1 meter

- **TREND**

- Store & review 168 hours trend data and trend maps
- Parameter option: HR, SpO2, NIBP, PR, Resp, CO2, Temp1,
- Temp2, AA, N2O, O2, IBP1, IBP2, ST.
- Cycle intervals of trend storage 1min, 2min, 3min, 4min, 5min,
- 10min, 15min, 20min, 25min, 30min.

- **STORE & REVIEWING**
- ECG: 30 minutes one important lead's ECG waveform
- Alarm: 1800 groups Alarm events reviewing
- NIBP: 1000 groups NIBP measurement
- Arrhythmia: 128 groups data (8 seconds ECG waveform)

- **ENVIRONMENT**
- Working temperature: 0~+40°C
- Transportation and storage temperature: 20~+55°C
- Relative humidity: Working ≤ 85% Transportation and storage ≤93%
- Atmospheric pressure: Working 860~1060 hPa
- Transportation and storage 500~1060 hPa

- **STANDARD CONFIGURATION:**
- ECG, HR, RESP, NIBP, SpO2, PR, TEMP, Battery Lead-acid

- **OPTION:**
- Litium battery, 2-TEMP, 2-IBP, Recorder, EtCO2 (side stream, main stream),
- Anesthetic Gas, Nellcor SpO2, ICG

- **ECG**
- Mode: 5-leads (standard); 3-leads
- Lead selection: I, II, III, aVR, aVL, aVF, V1~V6 (option)
- Gain: AUTO, 0.25x, 0.5x, 1.0x, 2.0x, 4.0x
- Insulation Breakdown Voltage 4000VAC 50/60Hz
- Sweep speed 12.5mm/s, 25mm/s, 50mm/s
- HR Range: 10~300 bpm
- HR Accuracy ± 1% or ± 1 bpm, whichever is greater

- **ST SEGMENT**
- Measurement Range – 2.0mV~2.0mV
- Resolution 0.01mV

- **RESP**
- Method: Impedance variation between RA-LL (R-F)
- Measurement Range: 0~150 rpm
- Accuracy: ±2 rpm

- Gain: x1, x2, x4
- Sweep speed 6.25mm/s, 12.5mm/s, 25mm/s

- **TEMP**
- Measurement Range: 25.0~50.0°C
- Unit: Celsius (°C), Fahrenheit (°F)
- Accuracy: ±0.1°C (exclusive of probe)
- Connecting cable: Compatible with YSI-400

- **SpO2**
- Measurement Range 0~100%
- Accuracy 70~100%, ±2%
- 0~69%, unspecified
- PR Range 25~250 bpm
- PR Accuracy ±1% or ±1 bpm, whichever is greater

- **NIBP**
- Technique: Automatic oscillometry
- Range: Adult: 10~270 mmHg
- Child: 10~235 mmHg
- Neonate: 10~135 mmHg
- Accuracy: Static ±2% or ±3 mmHg, whichever is greater
- Unit: mmHg, kPa
- Pulse rate range: 40~240 bpm
- Intervals for AUTO measurement: 1,2,3,4,5,10,15,20,30,60,90
- minutes 2,4,8 hours

- **IBP (OPTION)**
- Channel: 2
- Measurement Range: -50~ +300 mmHg
- Unit: mmHg, kPa
- Accuracy: ±2mmHg or 2%, whichever is greater

- **EtCO2 (OPTION, Sidestream, LoFlo)**
- Range 0~19.7% (0 ~ 150 mmHg)
- Unit: %, mmHg, kPa
- Respiration Rate Range 2~150 bpm
- **SIZE AND WEIGHT**
- Size 318mm X 264mm X 152mm
- Weight 4.5kg

OR EQUIVALENT
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USA/EUROPE/JAPAN/UK

ITEM NO. 03

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DEFIBRILLATOR	Qty	02

- 360 J energy, Biphasic Waveform Technology
- 7" color graphic TFT LCD display or better.
- Built-in standard 12-lead ECG
- Synchronous or asynchronous mode
- Semi-automatic (AED) or manual control
- Operation from paddles
- Short charging time less than 5 sec or better
- Charging time for fast action start from 2.7 secs to 200 J , 4.5 secs to 360 J
- Alarm functions
- Should have 3-channel high-resolution recorder or better.
- Should have **Pacemaker with** Mode Demand (VVI), Fixed Rate (VVO), Type Transthoracic non-invasive, Waveform Rectilinear, constant current
- Pulse Width 40 msec, Current Amplitude 0 and 20..200 mA, 1 mA resolution
- Rate 30..200 ppm, 1 ppm resolution
- Patient Impedance Range 0..1000 ohms with indicator
- Should have Optional upgradeable for ETCO2 , SpO2, NIBP
- Should have available option any time upgradeable for electrodes for internal defibrillation.
- Battery Capacity More than 5 hours continuous monitoring or 200 shocks at 200J Indicator 5-stage indicator on screen and LED indicator when turned off, Must be Charge time Less than 2 hours for full charge.
- Report Browser Software On PC, from exported USB data

OR EQUIVALENT

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ITEM NO. 04

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	INFUSION PUMP	Qty	04

SPECIFICATION

Display: 4.3" LCD TFT touch screen, 10 levels display brightness contrast
Infusion mode: 7 modes available: ml/h, body weight, drip, loading dose, ramp, sequence and relay mode
Micro mode: 100 ml to 1200ml programmable
Infusion rate range: 0.01 – 1200 ml/h with min. increment 0.01 ml/h

System Accuracy: ≥1ml/h,±5%
KVO Rate: 0.01 - 5.00ml/h, default value is 1 ml/h
Minimum flow rate increment: 0.01ml/h
Bolus: Manual bolus and programmable bolus, anti-bolus support
Bolus volume: Minimum 0.1ml, max 50ml
VTBI (volume to be infused): 0-9999ml, minimum step is 0.01ml
Total Volume Infused: 0.01-9999.99ml, minimum step is 0.01ml
Time Range: 1min-99hrs59min
Purge: 1200 ml/h
Air detection: 7 levels, sensitivity 20μl
Occlusion levels: 12 levels, upstream and downstream occlusion
History records: More than 5000 records
Other functions: Nurse call, RS232, data export
Interface: Mini USB
Dimensions: 234(W)*99(D)*120(H) mm
Weight: 1.8kg

Power Supply

AC power supply: AC 110/240V, 50/60 Hz
Input power: 50 VA
DC power supply: DC 15V lithium battery
Specification: 11.1V 2600mAh
Charging time: 5h (under OFF state)
Working time: ≥9h (after completely charging the new battery, when the environment temperature is 25°C and flow rate is 25ml/h, the constantly working time)

Alarm

Visual and audible alarms information: VTBI near end, VTBI infused, Pressure high, Check upstream, Battery nearly empty, Battery empty, No battery inserted, No power supply, Reminder alarm, Standby time expired, KVO finished, Drop sensor connection, Drop error, Air bubble, Door Open

Environment

Operating: temperature: 5-40° C
humidity: 20-90%, non-condensable
atmospheric pressure: 86-106kPa
Transport & Storage: temperature: -20-60° C
humidity: 10-95%, non-condensable
atmospheric pressure: 50-106kPa

Optionals

IrDA, WIFI, drop sensor, docking station and intravenous central station.
OR EQUIVALENT

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ITEM NO. 05

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ABG MACHINE	Qty	01

- Display: 5.4" LCD-display, illuminated, 15-lines, 30 characters
- Measured Parameters: pCO2 , pO2 , K+ , Na+ , Li+ , Cl- , Ca++, pH, Glu, Lac, tHb, barometric pressure
- Calculated Parameters: HCO3 -A, HCO3 -S, BE, BEecf (SBE), TCO2 , BB, O2 sat, O2 CT, P50, AaDO2 , Hct, H+ , AGAP, SHUNT, Acid-Base Status
- Throughput: Up to 80 tests/hour depending on configuration
- Sampling Method: Aspiration system adapted for both capillary and syringes, cleaned with Rinse Solution automatically
- Sample Volume: 50-200 µl depending on measured parameters
- Sample Types: Whole Blood, Arterial Blood, Urine, Serum, Plasma,Respiration Gas
- Calibration: 2-Point calibration in standard and economy modes suited to your working hours.
- Measurement Temperature of Electrodes and Sensors: Electrodes and Sensor temperature automatically adjusted to 37.0°C ± 0.2 during measurements.
- Data Capacity: 2 GB SD Card, 32000 measurements and QC data sets

OR EQUIVALENT

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ITEM NO. 06

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DOUBLE OXYGEN LINE	Qty	01

Supplying / Installation of complete
Medical Engineering System Comprising
of: -

COPPER PIPE

- Imported Copper Pipe 18 Swg.
  de – Oxidised, de – greased, half – hard,
  solid drawn with required copper fittings
  as follows: -

Size	1"	-	Rft.
	3/4"	-	Rft.
	1/2"	-	Rft.

- **OUTLET POINTS**

Medical Gases Outlet Points,
Surface Type, wall – mounted
In accordance with the Healthcare
Technical Memorandum
HTM 2022
- Oxygen Outlet
- Air Outlet – 4 bar
- Nitrous Oxide
- Vacuum Outlet Points
- Air Outlet 7 bar

(U.K/U.S.A/JAPAN)

- **ISOLATION VALVES**

Isolation Valves with adaptor.

Size 3/8"
1/2"
3/4"
1"

(U.K/U.S.A/JAPAN)

- **MEDICAL AIR PLANT SYSTEM**

Oil Free Air Compressor System
Comprising of: -

V) 02 Nos. Air Compressor Sysetm
15 HP (One in use and other stand by)
VI) 02 Nos. Refrigerated Air Dryers
VII) 02 Nos. Pre- Air Filter (5 Micron)
VIII) 02 Nos. After Air Filter (1 Micron)

(U.K/U.S.A/TAIWAN/KOREA/JAPAN)

- **BY PASS SYSTEM**

By pass system with
Network of pipeline system and
Isolation Valves to connect the stand
By Compressor and refrigeration dryer
In case of emergency. (LOCAL)

- **CONTROL PANEL**

Change over electric control panel
Complete with installation for
Compressor and Dryer.
(LOCAL)

- **OXYGEN SUPPLY MANIFOLD**

The Manifold is a to switch from bank in use to reserve
Bank without fluctuation in delivery supply line pressure

and without the need for external power. After the switch-over the "reserve" bank becomes the "bank in use" and the bank in use becomes the reserve bank.
The system is able maintain continuous supply 1500LPM Capacity (2 x 10) with capacity of 180 M3/H set of conection for cylinders/Hp. Valves , discharging valves, tell pipe
Make: Local with Imported parts

- NITROUS OXIDE MANIFOLD (LOCAL)

The Manifold is a to switch from bank in use to reserve Bank without fluctuation in delivery supply line pressure and without the need for external power. After the switch-over the "reserve" bank becomes the "bank in use" and the bank in use becomes the reserve bank.
The system is able maintain continuous supply 1500LPM Capacity (2 x 4) with capacity of 50 M3/H set of conection for cylinders/Hp. Valves , discharging valves, tell pipe
Make: Local with Imported parts

- ZONE SERVICE UNITS (LOCAL)

Zone Service Unit complete box
With Imported Isolation Valve and adaptor.

- MEDICAL GAS ALARM

Supplying and installation of Alarm System of different Gases
With mute / test facility, gives
Sound and flash light whenever
The pressure in line decreases
The set pressure for individual
Gas i.e
- Oxygen -
- Medical Air 4 bar -
(LOCAL)

- FLOWMETER SET

Oxygen Flowmeter O – 15 LPM
Complete with Humidifier and probe
(U.K/U.S.A/JAPAN)

- SUCTION INJECTOR UNIT

Complete with 02 Ltrs (2000ml) Collection jar and probe
(U.K/U.S.A/JAPAN)

OR EQUIVALENT
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ITEM NO. 07

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DOUBLE VACCUM SYSTEM	Qty	01
Compatible to central oxygen system) -THE SYSTEM SHOULD BE JOINT WITH SURGICAL ICU. OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 08

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	CRASH TROLLEY	Qty	04
• Should be made in steel painted with epoxy resin with four castors with brakes. • Should have four drawers of 310 x 400 x 470 mm. • Should have tray with size of 400 x 400 mm or better support 25 kg or better. • Should have two side rails. • Oxygen and suction regulator, flowmeter 0-15 L/min or better. • Venturi suction device (60 cmHg – 600 mbar) or more • Collection jar 1 liter or more. • Manual resuscitator for adults with two face masks (adult and child). • One IV Pole which can be placed at both sides of the cart. • Should have cardiac massage board. • Dimensions: 1400 x 470 x 680 mm. OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 09

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	LARYNGO SCOPE	Qty	03 SETS
UltraSafeTM Standard UltraSafeTM Mini UltraSafeTM Paediatric UltraSafeTM Stubby			

Batteries C AA N AA OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK

ITEM NO. 10

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	AMBO BAG	Qty	10
Bag volume: Adult (1475 ml), Pediatric (635 ml), Neonate (220 ml) Dimensions: Adult (295x127 mm), Pediatric (234x99 mm), Neonate (165x70 mm) Weight: Adult (350 g), Pediatric (230 g), Neonate (112 g) (including reservoir and mask) Additional detailed specification can be found in the datasheets OR EQUIVALENT OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 11

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	B.P APPRATUS	Qty	10
The maximum number of cuff inflations for each SP in the mercury measurement is **five,** counting all MIL attempts and blood pressure attempts. The rationale for this is twofold: to minimize the discomfort to the SP of frequent cuff inflations and to accomplish data collection for this measurement within the time allowed. OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 12

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	BIPEP VENTILATORS	**Qty**	**04**

- Environmental operating Temperature from 5 °C to 35 °C or more and storage temperature capacity from -20 °C to °C or more and non-condensing capability.
- Standard physical dimension.
- Atmospheric pressure from 101 to 77 kPa or more.
- General requirements for safety of Medical and electrical equipment.
- Electromagnetic compatibility RTCA / DO -160F
- Protection against electric shock type BF
- Auto pressure accuracy Bi-level I Bi-level pressure.
- With Full Face Mask, software CD, Data storage and review facility and more
- Modes should be CPAP, Spontaneous, Spontaneous/Timed, Timed, Pressure Control with average volume assured pressure support feature.
- Features of average volume assured pressure support to automatically adapt to disease progression and changing patient needs on desire.
- Displayed parameters like Patient pressure, leak, tidal volume, minute ventilation, and respiratory rate.
- Patient alarms like Patient Disconnection, Apnea, Low Minute Ventilation, Low Tidal Volume - option for Heated Humidification.
- Inspiratory time 0.5 to 3.0 seconds
- IPAP 4 to 30 cmH2O
- EPAP 4 to 25 cmH2O
- Target tidal volume 200 - 1500 ml
- Breath rate 0 - 30 bpm

OR EQUIVALENT

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ITEM NO. 13

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	BLOOD WARMER	**Qty**	**05**

- Blood warmer with display
- Control to Monitor and manage transfusion (blood) temperature.
- Automatically Cutoff/Stop, Audible & Visual Alarms for low/ overheating
- Should Heat liquids without risk of contamination
- Self-tests and error display
- Setting of temperature from 37 °C to 41 °C in 0.5 °C increments
- Automatic adaption of the heating control system
- Should meet AABB Guidelines for use of blood warming device

- Current : 6 A
- Protection against against electric shock and ingress of liquids
- Should have multiple independent cut- off from 42°C

OR EQUIVALENT
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ITEM NO. 14

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	NEUBILIZER MACHINE	Qty	12

- Latest and state of art
- Ultrasonic energy for uniform and highly dense 1 - 5 microns or more.
- More than 96% of 0.3 micron or larger air borne dust particles is effectively shut out with the air filter to provide purified air for aerosol nebulization. Medication cup with replaceable diaphragm.
- Easily detachable fan cover and pneumoclean (Air filter).
- Made of highly resistant sterilizable resin.
- Stand with solution bottle for safety.
- Nebulizing rate: 4 ml/min or greater.
- Mist particle size: approx. 1 – 5 microns.
- Nebulizing times setting: 1 – 30 min& continuous
- Medication cup capacity: 150 ml.
- Accessories:
- Tray set for nebulizer with tray track and pole mount fitting.

OR EQUIVALENT
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ITEM NO. 15

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ECG MACHINE 6 CHANNEL	Qty	02

- One time record : 3/6 channels
- Width of record : 112mm
- Outside USB printer : printout A4 (210x297)
- Record speed : 5/10/25/50 mm/s
- Sensitivity : 2,5/5/10/20 mm/mV
- Digital filtration of disturbances : 25,35,50,60 Hz
- Display : 5,7" graphic, color TFT 320x240
- Analysis and interpretation : HES compliant with EN 60601-2-51
- Internal memory : >300 tests
- Alphanumeric keyboard

- Detection of stimulator impulses (pacemaker)
- Automatic regulation of isoelectric line
- Constant measurement of heart action (HR)
- Acoustic signalization of detected stimulations
- Paper easy-load
- Record of test copy on PENDRIVE, in standard EN1064 (ECG-SCP)
- Signalization of wrong connection with particular electrodes
- Available versions in national languages
- CMMR : >100dB
- Sampling Frequency : 1000 Hz
- Converter : 12bit
- Resolution : 0,25uV/bit
- Input impedance : >10 MΩ
- Dynamic range : 10mVpp
- Frequency band : 0,05-150 Hz
- Leads : 12 standard/ Cabrera
- Input channels : floating, protected from impulse defibrillating CF
- Power : 90-240V, 50/60Hz
- Inside rechargeable battery: Li-ion 7,2V; 2200mAh Li-ion
- Power consumption : <30VA
- Dimensions: 260W x52H x220D mm
- Weight : < 1,8 Kg
- Fulfilled standards : EN 60601-1, EN 60601-1-2, EN 60601-2-25,
- EN 60601-2-51
- Safety : protection type CF (EN60601-1) Class I
- Class / Group : Class A / Group 1 (CISPR-11)
- Operating environmental conditions :
    - Temperature +10 to +40 °C
    - Relative humidity 25 to 95% (non-condensing)
- Patient cable
- Electrodes set
- Gel flacon - Paper roll
- Power cable
- User manual
- PC software for data management
- Carryng case

OR EQUIVALENT

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ITEM NO. 16

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	VITAL SIGN MONITORS	Qty	20

TECHNICAL SPECIFICATION

Size	125x299x130mm
Weight	1.25kg
Displaytype / size	LED 100 x 120mm
Power voltage	100 -240VAC
Power frequency	50/60 Hz
Input current	0.15-.03A
Battery type / capacity	lithium ion, 11.1V, 2200 mAh
Thermometer battery type/ capacity	LR03 (AAA x 2) 1.5 VDC
Patient groups	Adult, Paediatric& Neonate
NiBP	Oscillometric
SpO_2	0% to 100%, 1% resolution
Temperature (option)	Tympanic, 34°C to 42.2°C (93.2°F to 107.6°F)

OR EQUIVALENT

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ITEM NO. 17

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	AIR MATTRESS	Qty	05

Latest technology
Commodity Size 1940*840*80 mm
Packing Size 1940*900*80 mm
CBM 0.13
Material: waterproof, mold proof, ventilate cover, sponge ,palm fiber
OR EQUIVALENT
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ITEM NO. 18

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	UV LIGHTS	Qty	08

- Latest Technology
- Good quality

- Standard Size
- State of the art manufacturing
- Brochure must be provided
- Must he portable
- As used worldwide mostly in the field of Hospitals

OR EQUIVALENT

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ITEM NO. 19

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	X-RAY ILLIMINATOR	Qty	04

- Latest Technology
- Good quality
- Standard Size
- State of the art manufacturing
- Brochure must he provided
- 2 in 1 Horizontally or more
- Must be Digital latest LED lights.

OR EQUIVALENT
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ITEM NO. 20

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	STEAMER	Qty	02

- Base ø 55 cm - Arm 50 cm
- Height 105-130 cm
- Material ABS
- 220 – 240 V 700W 50/60 Hz. The Viso steamer is ideal for performing deep cleansing facial treatments.
- The unit takes advantage of the dilating effect of stream, which can also be supplemented with ozone.
- The stream delivery nozzle on the arm can be positioned as desired, and the rolling stand allows the unit to be moved effortlessly.
- Also equipped with a timer and a safety system that shuts off the unit if it runs out of water or if the thermostat fails.

OR EQUIVALENT

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ITEM NO. 21

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	CENTRAL MONITOR	Qty	02

Features
Central Monitoring System is kind of intelligent central multi-bed and multi-physiological parameter monitoring system, connected by network with beside units, suitable for performing continuous monitoring of several patients in CCU and ICU wards simultaneously.
Large storage capacity
96 hours holographic ECG waveform storage and Replay
240 hours trend graph review
1.000 alarm record
30.000 patient historical data
Alarm data saves all physiological parameters and waveforms
12 seconds before and after the alarm
Strong printing function
Support various kinds of printers
Can print case reports at any time so as to timely master the patient's info
Copy screen print for single bed, with 13 channels of waveform at most
Data review print including the trend graph review, trend list replay, ECG review and alarm incident review
Easy and convenient operation
Large font screen
Provide indication of probe detachment
Provide detailed notes to facilitate operation
Can record, search and classify the abnormal ECG events
Bi-directional communication with bedside unit
Central Unit able to remotely control the bedside unit to measure BP
Technical specifications
In accordance with IEC60601 standard
Power supply: AC 100-120 / 200-240V, 50/60 Hz
Minimum system requirements
Intel Pentium IV 2.4GHz CPU or above
256MB RAM or above
Windows 2000+SP4 or Windows XP + SP2 system
80GB Hard disk or above
40X CD-ROM or above
17" TFT, Resolution: 1280 x 1024, 75Hz (4:3) non-interlaced scanning

Computer configuration could be defined and updated
Network management
Wire connect:
- TCP/IP protocol
- 10/100 Base-T Ethernet
- Connected to
- Connected bedside unit number: up to 66 bedside monitors
- Connection can use the available network system of the Hospital
Wireless connect:
- Working frequency band is 433.92MHz
- The reliable clear view distance indoor is 30 meters in semi diameter, with relay station reaches above 1000 meters
- Can collect and display several physiological parameters and Show 3 waveforms measured by bedside unit
- Connected bedside unit number: up to 16 bedside monitors
Performance
Waveform: ECG (I, II, III, aVR, aVL, aVF, V1-V6) RESP, Co2, IBP1, IBP2, SpO2
Parameter: HR,RR, NIBP, IBP, SpO2, PR, TEMP, CO2 (EtCO2, FiCO2), Anesthetic Gas (O2, N2O, 5AA)
Sweep speed: 12.5mm/s, 25mm/s, 50mm/s user –adjustable
View bed: Up to 66 waveforms for 32 bedside monitors (dual-screen display)
Possible to select required beds and automatically align the screen windows
All waveform presentation for one patient
Oxy CRG display
7-leads or 12-leads ECG waveform display
Waveform frozen
Remote Monitor Control
Bi-directional communication
Central Unit able to remotely control the bedside unit to measure BP
Alarm
Alarm limits can be set up for all parameters
Sound and indicator light alarms are provide for exceeding the limit of: HR / RESP / SPO2 / PULSE / BP / TEMP / Co2
Alarm waveform saves all the physiological parameters and Waveforms before and after the alarm
Arrhythmia alarm
Support input and output alarm data
Review information
96 hours holographic ECG waveform storage and replay
240 hours trend data storage and replay for each bedside unit

1.000 records of alarm messages storage and replay for each bedside unit
30.000 history patient monitoring information
Calculations
Drug calculation and titration table
17 types of arrhythmia analysis

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ITEM NO. 22

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	AMBULATORY HOLTER WITH BLOOD PRESURE MONITORING SYSTEM	Qty	02

Specifications/ Feature:

- Fast record analysis
- Should have FDA 510K certificate
- Simple, user friendly software with multiple functions
- Precise QRS classification and rhythm analysis
- QRS template classification
- Arrhythmia analysis, arrhythmia overview
- Color coded graphs
- ST level and slope analysis
- QT analysis
- Heart Rate Variability analysis (Time and frequency domain)
- Heart Rate Turbulence analysis
- Atrial Fibrillation analysis
- Microvolt T
- Pacemaker analysis
- BP record analysis using multiple computed parameters and graphs
- Various Holter reports
- GDT
- Local, network operation
- Export, import functions
- Full-disclosure ambulatory ECG records
- 2 independent channels
- Compact size, lightweight, graphic LCD display
- Wireless (Bluetooth) communication with PC
- Patient event
- Recording duration: 24, 48, 72 hours
- PC connection: Bluetooth, USB
- Sampling rate: 128, 256, 512, 1024 Hz

- Recording rate: 128, 256, 512, 1024 Hz
- ADC resolution: 16 bit
- Dynamic range: +/- 20 mV
- Power supply: 1 X 1.2 V AAA

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ITEM NO. 23

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	SUCTION MACHINE	**Qty**	**05**

Two 2500 ml Autoclavble PC collection jar with over
Flow valve system
5 caster stand with brakes
Antibacterial and hydrophobic filter
1 Vacuum indicator (kPa and bar)
1 Vacuum regulator
Silicone autoclavable tubes

Motor	Oiless and maintenance-free piston pump
Power Feeding	230V-50 Hz
ISO 10079-1Classification	HIGH VACUUM / HIGH FLOW
Max free air flow rate	40 l/min
Max Vacuum (adjustable)	-0.80 Bar -80 kPa -600 mmHg
Noise Level	61,5 dB
Power consumption	110 VA
Fuse	1 x F 4 A 250 V
Duty cycle	Non-stop operation
Weight	6,5 Kg

Size	32x99x30 cm

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ITEM NO. 24

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	AUTOCLAVE BENCH TOP	Qty	01

Smart with multi safety protection Functions
Built-in printer
24Litre7. Six-procedure and Automatic process
Integrated Self-contained Steam Generator (Better Steam Infusion)
Six-procedure and Automatic process
Intelligent Vacuum Drying
Double water pumps
Double condensers
Double fans,
Detachable Rear Panel

OR EQUIVALENT

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ITEM NO. 25

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	BLANKET WARMER	Qty	01

Woolen Made 6x6 Blankets Washable With Complete Stitching Side Coving.

OR EQUIVALENT

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ITEM NO. 26

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PULSE OXIMETER	Qty	25

For Adult / Paediatric/ Neonate
Desk Stand with integrated Charging port

4xAA NiMH rechargeable cells Wall cube/power supply Reusable sensor Multi lingual instruction for use CD OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK

ITEM NO. 27

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	OESOPHAGAL STETHOSCOPE	Qty	10
Length: 27" (69 cm) Weight: .4079 lbs (185 g) Binaural Construction: Single lumen Chestpiece Finish: Chrome Chestpiece Technology: Single sided Diaphragm Diameter: 2.0" (51 cm) Diaphragm Material: Polyurethane-Coated Silicone Diaphragm Type: Digital Electronic Filtering - Ambient Noise Reduction (ANR) Eartip Type: Soft Sealing Extra Eartips: No Headset Material: Wide diameter aerospace alloy / Anodized aluminum Patient: Adult, Infant, Pediatric Performance: 10+ Special Adaptors: No Tube Color: Black Model: 3MTM Littmann® Electronic Stethoscope Electronic 3200 Applications: Cardiology/High Performance OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 28

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	MINI TRACHEOSTOMY SET	Qty	02
30pcs Instruments Set With Instrument Tray OR EQUIVALENT ISO AND FDA/CE/JIS APPROVED USA/EUROPE/JAPAN/UK			

ITEM NO. 29

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	OPERATION TABLE WITH BATTERY BACKUP	Qty	02

Radiolucent tabletop.
Built-in X-ray Cassette Channels
Table length 2100mm
Table width 500 mm or more with rails.
Table Height (min) 690 mm to (max) 1040 mm
Lateral tilt - 20 / +20 degree or more
Trendelenburg-25/+25° maximum from horizontal
Reverse Trendelenburg 25° maximum from horizontal
Back rest adjustment up 80°/+12° max
Leg plate adjustment up 10°/100°/100° maximum.
Flex / Reflex 192°/100°
Sliding Table Top Upto310mm
Auto Leveling
Spread of split leg plates 90 degree.
Manual Head plate adjustment -90 / +90 degree.
Patient Weight capacity 200kg or more.
Central Break
Kidney Bridge 120mm height
Manual Over Ride
Complete with : Anesthesia Screen, Arm Boards ,lithotomy pole, drain pen, Basic Straps , Safety Clark Sockets
Complete High Quality S.S Base
Battery backup Up to 4Hrs

OR EQUIVALENT
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ITEM NO. 30

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	O.T LIGHT- DOUBLE DOOM SURGICAL LIGHT WITH BATTERY + CAMERA + MONITOR & CAMERA SYSTEM WITH COMPLETE INSTALLATION	Qty	02

Note : OT LIGHT & CAMERA SYSTEM SHOULD BE QUOTED SEPARATELY

LIGHT -1

- Dimension Cupola: 700mm
- Light Intensity : 160,000 LUX at 1 meter

LIGHT -2

- Dimension Cupola: 500mm
- Light Intensity : 90,000 LUX at 1 meter

- Color Temp: Adjustable from 3500 to 5000K
- Color rendering Index: ≥ 93
- Diameter of light spot: 120-350 MM
- Illumination Depth: 700-1500 MM
- LED Service Life: 50000 Hours
- Control Via LCD
- Battery Backup: ≥ 2 Hours

CAMERA:

- Resolution: ≥ 200 Megapixel 920 x 1080
- Communication Mode: RS232
- Communication Protocol: HITACHI/SONY/VISCA or Equivalent
- Connector: LVCMOS-36PFPC
- Compatibility: 110/LVDS/30P
- Sensor Type: 1/2.9" CMOS
- Scan Mode: Progressive Scan
- Day and night system: Color/Black and white/Automatic
- Minimum Illumination: Color 0.1 Lux, Black and white: 0.01LUX
- Exposure Mode : A/M
- White Balance: Automatic/Indoor/Manual
- Focus Mode: A/M
- Gain Control: A/M
- Picture Effect: Automatic/Color/Black and white/Negative

Electronic Amplification

- Back Light Compensation: On/OFF

Image Freeze:

- Mirroring Function: Support (Horizontal Mirror + Vertical Mirror)
- Image Rollovers: Support

Generic Specification:

- Dimension: 56(W) x 56 (H) x 110 (L) MM
- Work Temperature And Humidity: -10C ~ 50C, 10% RH ~ 60%
- Storage Temperature and Humidity: -20C ~ 60C, 10%RH ~ 80%RH
- Synchronization Mode: Inter-Sync
- Video Output: Digital Signal
- SNR: ≥ 50DB (AGC OFF)

LENS

:

- IRCUT : IRCUT Double Filter Automatic Switching
- Automatic Diaphragm: Support
- Optical Lenses : 10X, F=5MM
- Field Angle : H: 47 (W) ~ 5.3 (T), V : 35.6 (W) ~ 3.96 (T)

Blank Screen:

- Wide Dynamic : D-WDR
- DNR : 2D-DNR
- Electronic Shutter : 1/30S~1/10,000S

Control Ratio : Adjustable
Anti-Fog Function : Support
Marginal : Support

LCD Monitor

Screen Size : ≥20.5"
Display Area : 475.2mm (W) x 267.3mm(H)
Max Resolution : 1920 x 1080
Display Color : 16.7 M
Pixel Pitch : 0.2475 (H) x .2475 (V)
Luminance : 300 cd / m2
Viewing Angle : 85/85/75/65
Response Time : ≤ 9MS
Field Frequency : 50Hz, 60Hz, 70Hz

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 31

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ANESTHESIA MACHINE WITH INTEGRATED VENTILATOR AND VAPORIZER	**Qty**	**02**

Standard/Cascade flow tubes.
-Cascade flow tubes with with electronic flow display providing numeric representation of gas flow
-Virtual flow display (VFD) numeric and graphic

-Virtual flow display also provides touch screen control of back lighting
-03 Gas (O2 / N20 / Air) with ventilator Comprising of:-
Gas (Oxygen / N2O / Air)
Two Vaporisers Mounting
03 Gas Rotameter (O2 + N20 + Air)
Mechanical Anti – Hypoxic Device.
Non – inter changeable pipeline inlets
Pipeline & Cylinder gauges for O2 + N2O+ Air alongwith hoses.
Pin Index cylinder yokes.
Gas Outlet and O2 flush control.

02 Auxiliary 02 power outlets.
Lockable castors.
Monitors Shelf.
Impact resistant & easy to clean frame.
Stainless steel work surface.
Absorber support arm.
03 Gas flowmeter for O2 + N2O + Air.
Sigma Delta Sevoflurane Vaporizer.
Flow and Temperature compensated (Service Free)
Base lockable 6" Drawer unit.
Main power outlet 220 / 240 Vac (IEC X 4)
Writing Shelf / Platform.
Sharp holder.
High suction Controller with receiver jar of
Ltrs complete with connections and fittings.
SPA Carbon Dioxide Absorber with Bag
Vent and By Pass complete with detachable
The system must have built in heater to control moisturizer
Electronic Anesthesia Ventilator MODEL NO: AVS
Inch Large Colour Touch Screen Anesthesia Ventilator
With Built – in Oxygen Monitor,
Ultra – accurate Spirometry
With advance Ventilation (SIMV,SMMV and PSV)
Combines sophistication and ease of use,
Volume and Pressure Ventilation plus SMMV,SIMV,PSV and PEEP
Single / dual waveform display
High quality , multi-option product with flexible specification
Integrated Oxygen Monitor and spirometry
Inverse I:E Ratio capability
Electronic PEEP
Autoclavable Latex free bellows
Oxygen or Air drive gas

Battery Back up
Magills Breathing Circuit
Tidal Volume from 5ml to 1600ml.
Should have 30 minute battery backup

Gas Agent monitoring (Agent Analyzer) and Ende tidal CO2 (EtCO2) monitoring of Same Brand should be quoted as Option.
OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/JAPAN/UK

OFFICE OF THE MEDICAL SUPERINTENDENT

GHULAM MUHAMMAD MAHAR MEDICAL COLLEGE HOSPITAL SUKKUR

TENDER FOR PURCHASE OF MACHINERY/EQUIPMENT TO BE INSTALLED AT GHULAM MUHAMMAD MAHAR MEDICAL COLLEGE HOSPITAL SUKKUR

NON-ADP SCHEME DUE ON 29-03-2018

INSTRUCTION TO BIDDERS / PREPARATION OF BID

SCOPE	MEDICAL SUPERINTENDENT, GMMC HOSPITAL SUKKUR intend to Purchase **SUPPLY & INSTALLATION OF MEDICAL EQUIPMENT/INSTRUMENTS MACHINERY &General Items** through National Competitive Bidding.
1. Technical/ Financial Proposal	1.1 Technical and Financial proposal separately, i.e. single stage two envelope procedure. The envelope must contain on the top clearly written at corner for "TECHNICAL PROPOSAL" OR for "FINANCIAL PROPOSAL" in order to avoid any confusion. The tenders shall be submitted with all documents, drawing literature & catalogue (in equipment) in Technical proposal. The name of manufacturer or supplier should be affixed on the face of envelop a the left side. Moreover, financial envelops should contain financial bid each item separately.(Commercial offer must be quoted in each item/ each envelope)The envelopes shall then be sealed in an outer envelope. The inner and outer envelopes shall be addressed and marked to the Procuring agency at the address given in the BDS, Initially envelope marked as "**TECHNICAL PROPOSAL**" shall be retained In the custody of the procuring agency without being opened. 1.2 Tenders must be filled in with blue or black in k in the column provided or on separated letter head duly signed. 1.3 The tenders must be free from erasing, cutting and overwriting. In case of erasing, cutting and over writing, authorized person should sign & stamp it. 1.4 Conditional tenders will be ignored and will not be considered/entertained/accepted. 1.5 The rates of each item should be written in figures as well as in words. In case of discrepancy the price in words will be taken as authenticate and final. 1.6 **Original purchase receipt must been closed with the technical offer**.
2. Ernest Money	2.1 The bid security is required to protect the Procuring agency against the risk of Bidder's conduct, which would warrant the security's forfeiture The bid security shall be denominated in the currency of the of the bid. 2.2 Tender shall be accompanied by Earnest Money@2%of the value of stores quoted by them inform of Bank Guarantee /pay order/demand draft in the name of **MEDICAL SUPERINTENDENT GMMCH SUKKUR.** 2.3 Copy of earnest money (without amount) must be attached along with the technical bid and the original along with financial bid in case of disclosure of price or amount of Earnest Money in the technical bid, the bid will be rejected. 2.4 Bid security shall release to the unsuccessful bidders once the contract has been signed with the successful bidder or the validity period has expired. 2.5 The successful Bidder's bid security shall be discharged upon the Bidder signing the contract, and furnishing the performance security. 2.6 The bid security may be forfeited: a) if a Bidder withdraws its bid during the period of bid validity or b) In the case of a successful Bidder, if the bidder fails: to sign the contract in accordance or to furnish performance security within

	time.
3. Professional Documentation & Conditions	3.3 List of hospitals, name of department, contact numbers of the end users, in which the quoted equipment are installed by bidder who is participating in this tender must be attached. Copy of previous installation report in a reputed Government/Private |Teaching Hospitals/ repair certificate if any, of the similar quoted item from the end user should be attached along with the bid Sole agent certificate for the quoted items from the Manufacturer must be attached by the bidder. Certificate should be valid for three years from the date of issue which should be verifiable by concerned authority. 3.4 The bidder shall furnish General Sales Tax (GST) Registration Certificate of the firm failing which the offer will be ignored. In case the item is exempted from GST either documentary evidence or certificate from competent authority shall be attached with the offer. 3.5 The bidder shall furnish copy of valid Professional Tax Certificate, Income Tax Certificate; Last three years paid income tax Challan and proof of registration with Chamber of Commerce. 3.6 The equipment to be imported comply/certificate of CE/FDA/JIS standards certificate should be attached along with the offer. 3.7 Bidder should submit a fresh bank certificate/ statement showing strong financial capability of firm (Last Three Years). 3.8 Tendrer are required to furnish a detail of technical quotation on their letter head and specify the standard and optional items / accessories as required in the tender specification. Bidder should clearly mention make, model and country of origin of the quoted items. 3.9 No manufacturer shall authorize their distributor/agent/any firm or person to quote the same item which manufacturer quoted it-self in any tender. Failing which offer of the manufacturer will be considered and other shall be rejected.
4. Alternate Offer	Tendrer shall purchase separate tender document and furnish purchase receipt for each alternate offer in case they intend submit alternate offer without separate purchase receipt (original) are supposed to be rejected
5. Bid Validity	5.1 Bids shall remain valid for the period of 90 days after the date of bid opening prescribed by the Procuring agency. A bid valid for a shorter period shall be rejected by the Procuring agency as non responsive. 5.2 In exceptional circumstances, the Procuring agency may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The bid security shall also be suitable, extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will neither be permitted to modify its bid
6. Bid Prices	6.1 Price should be quoted **"FOR"** basis. FOR offer should be quoted on delivery to consignee's end **i.e Medical Superintendent, GMMMCH Sukkur** inclusive of all taxes, stamps, duties, levies, fees and installation and integration charges imposed specified in the schedule of Requirements. No separate payment shall be made of the incidental services. 6.2 The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total bid price of the goods it proposes to supply under the contract. 6.3 Prices quoted by the by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account, unless

	otherwise specified in the Bid Data Sheet.
7. Bid Currency	Prices Shall be quoted in Pak Rupees.
8. Bid Form	The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity, and prices.
9. Documents Establishing Bidder's Eligibility and Qualification	9.1 The Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted. a) that, in the case of a Bidder offering to supply goods under the contract which the bidder did not manufacture or otherwise produce, the bidder has been duly authorized by the good Manufacture or producer to supply the goods in the Islamic Republic of Pakistan. b) that the Bidder has the financial ,technical ,and production capability necessary to perform the contract; that the Bidders meets the qualification criteria listed in the Bid Data Sheet.
10. Documents Establishing Goods' Eligibility and Conformity to Bidding Documents	10.1The documents evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings, and Data, and shall consist of: (a) a detailed description of the essential technical and performance characteristics of the goods; (b) The Bidder shall note that standards for workmanship, material ,and equipment, as well as references to brand names or catalogue numbers designated by the Procuring agency in its Technical Specification are intended to be descriptive only and not restrictive :till stated otherwise in Technical Specifications or Bid Data Sheet .The Bidder may substitute alternative standards, brand names , and /or catalogue numbers in its bid , provided that demonstrates to the Procuring agency's satisfaction that the substitutions ensure substantial equivalence to those designated in the in the Technical Specifications
11. Format and Signing of Bid	11.1The Bidder shall prepare an original and the number of copies of the bid indicated in the Bid Data Sheet, clearly marking each **"ORIGINAL BID"** and **"COPY OF BID"** as appropriate. In the event of any discrepancy between them, the original shall govern. 11.2The original and the copy or copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid. 11.3Any interlineations, erasures, or overwriting shall be valid only if they are initialed by the person or persons signing the bid.
12. Submission of Bids and its Deadline	12.1 If the outer envelope is not sealed and marked as required, the Procuring agency shall assume no responsibility for the bid's misplacement or premature opening 12.2 Bids must be received by the Procuring agency at the address specified in BDS, not later than the time and date specified in Bid Data Sheet. 12.3 The Procuring agency may at its discretion extend the deadline for the submission of bids by amending the bidding documents, in such case all rights

	and obligations of the Procuring agency and bidders.
13. Late Submission of Bid	Any bid received by the Procuring agency after the deadline for submission of bids prescribes by the Procuring agency shall be rejected and returned unopened to the Bidder.
14. Modification and Withdrawal of Bids	14.1 The Bidder may not modify or withdraw its bid after the bid's submission, provided with consent of end user and procuring agency , including substitution or withdrawal of the bids, is received by the Procuring agency. 14.2 Bid may be modified after the deadline of bids as per end users demand and procurement agency. 14.3 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiry of the period of bid validity withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security.
15. Taxes and Duties	Supplier shall be entirely responsible for all taxes, duties (including stamp duty), license fees, etc., incurred until delivery of the contracted Goods to the Procuring agency.
16. Overriding effect of SPPRA RULES 2010 (Amd: 2013)	In case of conflict or primacy of interpretation the provisions of SPP Rules 2010 (amended 2013) shall have an overriding effect notwithstanding anything to the contrary contained in these bidding documents
17. Rights to reserve	Procurement Agency/Committee reserves the rights to reject any bid, which is otherwise sub standard and of low quality or to amend or reject bid/tender at any stage. Bid may be modified after the deadline of bids as per end users demand and procurement agency.
18. Liquidity Damage	If the Supplier fails to deliver the goods or perform the services within the time period(s) specified in the contract, the Purchaser shall, without prejudice to its other remedies under the contract deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.07 percent of the Contract Price for each day of delay until actual delivery or performance, up to a maximum deduction of 10% of the Contract Price. Once the maximum is reached, the purchaser may consider termination of the contract
19.1 Integrity Pack	Procurements exceeding Rs.10 million for goods and works Rs. 2.5 million for services shall be subject to an integrity pact as specified by regulations between the procuring agency and the suppliers or contractors or consultants.

EVALUATION CRITERIA

MANDATORY DOCUMENTS

S. No.	Bidders Eligibility Factor	Requirement	Document Required
1	Registration with Income Tax	Mandatory	Attach Copy of Active NTN certificate
2	Registration with Sales-Tax	Mandatory	Attach Copy Active GST registration Certificate
3	Relevant Experience Minimum of 5 years	Mandatory	Attach copies of Supply Orders with relevant completion certificate or Inspection Report
4	Financial Capacity	Mandatory Annually turnover of PKR. 60 Million for the past 1 year From 1st march 2017 to 28th February 2018	Attach supporting Bank Certificate of Company's Bank Account And bank statement showing end turnover of 60 Million
5	Agreement with all the terms & conditions	Mandatory Must unconditionally agree with all the instructions, terms & conditions specified in the bidding documents & contract agreement	Signature & company seal on every page of the bidding document.
6	Delivery time	Mandatory Must agree to serve the Contract within the stipulated time period	Completion time must be clearly specified in the Technical Bid
7	WEBOC ID	Mandatory This is mandatory for Electro Medical Items.	For imported items company must have to provide copy of WEBOC ID or Submit Printed online page of ID

NOTE: All above documents are mandatory and bidder failing to submit any of above document treated as non-serious bidder and lead to disqualify his bid and will not consider for further process.

Read and Agreed by M/s_____.

Name _____.

Signature with Stamp_____.

19. DOCUMENTS CHECKLIST

PART II

Please review the following list of all possible documents to be enclosed with the technical proposals.

Sr#	Document Description	Yes	No	Page No.
1.	Tender Purchase Receipt (Original)			
2.	Bid Security (Pay Order/Bank Draft) (Original in Financial offer)			
3.	General & Special Conditions of Contract (Duly filled, Signed & Stamped by bidder each & every page)			
4.	Schedule of Requirements (dully filled, Signed with Stamp)			
5.	Technical Specifications (dully filled, Signed with Stamp)			
6.	Technical Proposal on Bidder's Letterhead			
Bidders Documents				
7.	Manufacturer's Authorization (as per sample form)			
8.	Undertaking (as per sample form)			
9.	Certificate (as per sample form)			
10.	Income Tax & GST Registration Professional Tax Certificate (Sindh)Certificates are mandatory, Bidder's FBR Status should be ACTIVE (For NTN and Sales Tax)			
11.	Valid PNRA registration certificate where applicable			
12.	Company Profile			
13.	Bank certificate/Statement with last three years turnover.			
14.	Income Tax Return (last two years)			
15.	Workshop for after sales services			
16.	Technical Team detail			
17.	The Bidder will ensure provide WEBOC ID of Bidder must be active for Electro Medical Items.			
Original Equipment Manufacturer (OEM or brand quoted)				
18.	CE / FDS / JIS			
19.	References of offered model or brand (in Pakistan preferable in Sindh)			

- Mandatory documents are mentioned in instruction to bidder
- All pages of bid except for un amended printed literature shall be initiated by the bidder

19.1 Bidder's details for notice purpose

Bidder Name	
Company	
Address	
Tel& Fax No.	
Contact Person & Cell No.	
Email Address	

OPENING AND EVALUATION OF BIDS PART II-C

21. Opening of Bids by the Procuring agency	21.1 The Procuring agency shall open all bids in the presence of bidder's representatives who choose to attend, at the time, on the date, and at the place specified in the Bid Data Sheet. The bidders' representatives who are present shall sign a register/attendance sheet evidencing their attendance. 21.2 The bidders' names, bid modifications or withdrawals, bid prices, discounts, and the presences or absence of requisite bid security and such other details as the Procuring agency, at its discretion, may consider appropriate, will be announced at the opening.
22. Clarification of Bids	22.1 During evaluation of the bids, the Procuring agency may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted.
23. Preliminary Examination	23.1 The Procuring agency shall examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. 23.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the correction of the errors, its bid will be rejected, and its bid security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail. 23.3 Prior to the detailed evaluation, the Procuring agency will determine the substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Procuring agency's determination of a bid's responsiveness is to be based on the contents of the bid itself. 23.4 If a bid is not substantially responsive, it will be rejected by the Procuring agency and may not subsequently be made responsive by the Bidder by correction of the nonconformity.
24. Evaluation & Comparison of Bids	24.1 The Procuring agency will evaluate and compare the bids which have been determined to be substantially responsive. 24.2 The Procuring agency's evaluation of a bid will be on delivery to consignee's end inclusive of all taxes, stamps, duties, levies, fees and installation and integration charges imposed till the delivery location and shall exclude any allowance for price adjustment during the period of execution of the contract.
25. Contacting the procuring agency	25.1 No Bidder shall contact the procuring agency on any matter relating to its bid, from the time of bid opening to the time the announcement of Bid Evaluation Report. If the Bidder wishes to bring additional information to the notice of the procuring agency, it should do so in writing. 25.2 Any effort by a Bidder to influence the Procuring agency in its decision on bid evaluation, bid comparison, or contract award may result in the rejection of the Bidder's bid.

AWARD OF CONTRACT — PART II-D

26. Post – Qualification	26.1 In the absence of prequalification, the procuring agency may determine to its satisfaction whether that selected Bidder having submitted the lowest evaluation responsive bid is qualified to perform the contract satisfactorily. 26.2 The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Claus-7 as well as such other information as the Procuring agency deems necessary and appropriate. 26.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Procuring agency will proceed to the next lowest evaluated bid to perform satisfactorily.
27. Award Criteria	27.1 The Procuring agency will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.
28. PA Right to Accept any Bid and to Reject any or All Bids	28.1 Subject to relevant provisions of SPP Rules 2010 (Amended 2013), the Procuring agency reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award. 28.2 Pursuant to Rule 45 of SPP Rules 2010 (Amended 2013), Procuring agency shall hoist the evaluation report on Authority's web site within seven days prior to notify the award of contract.
29. Notification of Award	29.1 Prior to the expiration of the period of bid validity, the Procuring agency shall notify the successful Bidder in writing, that its bid has been accepted. 29.2 Upon the successful Bidder's furnishing of the performance security pursuant to Clause 31, the Procuring agency will promptly notify each unsuccessful Bidder and will discharge its bid security.
30. Signing of Contract	30.1 At the same time as the Procuring agency notifies the successful Bidder that its bid has been accepted, the Procuring agency will send the Bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties. 30.2 Within fourteen (14) days, or any other period specified in BDS, of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the Procuring agency.
31. Performance Security	31.1 Within seven **(07)** days, or any other period specified in BDS, of the receipt of notification of award from the Procuring agency, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the bidding documents, or in another form acceptable to the Procuring agency. 31.2 Failure of the successful Bidder to comply with the requirement of Bid data sheet Clause 30 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Procuring agency may make the award to the next lowest evaluated Bidder or call for new bids.

32. fraudulent practices or Used Equipment	32.1 Under no circumstances the bidder shall provide used/repaired/refurbished or defected medical equipment. If such case happened then, the firm concerned will be black listed and earnest money/security deposit will be forfeited. 32.2 The Government of Sindh requires that Procuring agency's (including beneficiaries of donor agencies' loans), as well as Bidders/Suppliers/Contractors under Government-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the SPPRA, in accordance with the SPP Act, 2009 and Rules made there under: (a) **"Corrupt and Fraudulent Practices"** means either one or any combination of the practices given below; (i) "**Coercive Practice**" means any impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence the actions of a party to achieve a wrongful gain or to cause a wrongful loss to another party; (ii) "**Collusive Practice**" means any arrangement between two or more parties to the procurement process or contract execution, designed to achieve with or without the knowledge of the procuring agency to establish prices at artificial, noncompetitive levels for any wrongful gain; (iii) **"Corrupt Practice"** means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the acts of another party for wrongful gain; (iv) "**Fraudulent Practice"** means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation: b) **Obstructive Practice"** means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract or deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements before investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or acts intended to materially impede the exercise of inspection and audit rights provided for under the Rules.

33. DEFINITIONS	33.1In this Contract, the following terms shall be interpreted as indicated: a) "The Contract" means the agreement entered into between the Procuring agency and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein. b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations. c) "The Goods" means all of the equipment, machinery, and/or other materials, which the Supplier is required to supply to the Procuring agency under the Contract. d) "The Services" means those services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Supplier covered under the Contract. e) "GCC" means the General Conditions of Contract contained in this section. f) "SCC" means the Special Conditions of Contract. g) "The Procuring agency" means the Sindh Public Procurement Regulatory Authority (SPPRA), Government of Sindh. h) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract. i) "SPP Rules 2010" means the Sindh Public Procurement Rules 2010 (Amended 2013). j) "Day" means calendar day.
34. Standards	34.1The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods' country of origin. Such standards shall be the latest issued by the concerned institution.
35. Patent Rights	35.1The Supplier shall indemnify the Procuring agency against all third- party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof in the Islamic Republic of Pakistan.
36. Performance Security	36.1 Within seven (07) days, or any other duration as specified in SCC, of receipt of the notification of Contract award, the successful Bidder shall furnish to the Procuring agency the performance security in the amount specified in SCC. 36.2 The proceeds of the performance security shall be payable to the Procuring agency as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract. 36.3 The performance security shall be denominated in the Pak rupees and shall be an unconditional bank guarantee, pay order, call deposit as, provided in the bidding documents or another form acceptable to the Procuring agency; 36.4 The performance security will be discharged by the Procuring agency and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in SCC.
37. Inspections and	37.1 The Procuring agency or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no

Tests	extra cost to the Procuring agency. The Procuring agency shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes. 37.2 Should any inspected or tested Goods fail to conform to the Specifications, the Procuring agency may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Procuring agency. 37.3 The Procuring agency's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the Manufacturer. 37.4 Nothing in GCC Clause 37 shall in any way release the Supplier from any warranty or other obligations under this Contract.
38. Packing	38.1The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage.
39. Warranty & Spare parts	39.10 years free service including warranty from the date of installation and further 02 years free service without parts. Additionally assurance for the availability of spare parts for at least 08 to 10 years may also be confirmed by the bidder 39.2The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Procuring agency's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination. 39.3If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, within a reasonable period, the Procuring agency may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense without prejudice to any other rights which the Procuring agency may have against the Supplier under the Contract 39.4The Supplier should provide any or all of the notifications, and information pertaining to spare parts manufactured or distributed by the Supplier 39.5Free installation along with all accessories including labor charges/demonstration at consignee end must be borne by the bidder. 39.6The supplier will be bound to train nominated technical personnel (inland/outland) to operate/ repair and maintain the supplied equipment 39.7If the **up time percentage** for the measurement period (04months) shall fall short of 95% the following formula will be applied to determine additional days in the warranty / services contract period. a. 100%-95% No Penalty b. 95%- 90% The warranty period will be extendedby2.0 times the number of days as extra downtime c. 90%- 80% The warranty period will be extendedby3.0 timesthenumberof daysas extradowntime 39.8 The firm will be bound to make arrangement for availability of qualified

	technical staff in hospital/ site for prompt execution/coordination of after sale service
40. Delivery and Documents	40.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping/ transportation and/or other documents to be furnished by the Supplier are specified in SCC.
41. Insurance	41.1 The Goods supplied under the Contract shall be delivered consignee's end under which risk is transferred to the Procuring agency after having been delivered; hence insurance coverage is Supplier's responsibility.
42. Transportation	42.1 The Supplier is required under the Contact to transport the Goods to a specified place of destination and shall be arranged by the Supplier, and related costs shall be deemed to have been included in the Contract Price.
43. Incidental Services	43.1 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC: (a) performance or supervision of on-site assembly and/or start-up of the supplied Goods; (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods; (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods; (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract;
44. Payment Method	44.1 The method and conditions of payment to be made to the Supplier under this Contract shall be specified in SCC. 44.2 The Supplier's request(s) for payment shall be made to the Procuring agency in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed, and upon fulfillment of other obligations stipulated in the Contract. 44.3 Payments shall be made promptly by the Procuring agency, but in no case later than thirty (30) days after submission of an invoice or claim by the Supplier. 44.4 The currency of payment is Pak. Rupees.
45. Prices	45. Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid,
46. Contract Amendments	46.1 No variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.
47. Delays in the Supplier's Performance	47.1 Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the Procuring agency in the Schedule of Requirements. 47.2 If at any time during performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Procuring agency in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Procuring agency shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.

	47.3 Except as provided under **GCC Clause 48** a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages unless an extension of time is agreed upon pursuant to GCC Clause 47.2 without the application of liquidated damages.
48. Liquidated damages	48.1 Subject to GCC Clause 51, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Procuring agency shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Procuring agency may consider termination of the Contract pursuant to GCC Clause 49.
49. Termination for Default	49.1 The Procuring agency, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part: (a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring agency pursuant to GCC Clause 47; or (b) if the Supplier fails to perform any other obligation(s) under the Contract. (c) if the Supplier, in the judgment of the Procuring agency has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
50. Force Majeure	50.1 Notwithstanding the provisions of GCC Clauses 47, 48 and 49, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. 50.2 Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Procuring agency in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes. 50.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring agency in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring agency in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
51. Resolution of Disputes	51.1 Resolution of dispute shall be through Mechanism for Redressal of Grievances as provided in the rules or through Arbitration Act 1942.
52. Governing Language	52.2 The Contract shall be written in English language all correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.
53. Applicable Law	53.1 The Contract shall be interpreted in accordance with the SPP Rules 2010 (amended 2013).
54. Taxes and Duties	54.1 Supplier shall be entirely responsible for all taxes, duties (including stamp duty), license fees, etc., incurred until delivery of the contracted Goods to the Procuring

	agency.
55. Overriding effect of SPPRules 2010 (Amended 2013)	55.1In case of conflict or primacy of interpretation the provisions of SPP Rules 2010 (amended 2013) shall have an overriding effect not withstanding anything to the contrary contained in these bidding documents

Read and Agreed by M/s_____.

Name _____.

Signature with Stamp_____.

PART-IV

56. BID DATA SHEET

	Introduction
1	**Name of Procuring Agency:** Medical Superintendent , GMMMCH Sukkur
2	**Name of Contract. "Tender for Supply of & Installation of Medical Equipment/Instruments Machinery &GENERAL ITEMS"**
	Bid Price and Currency
3	Prices quoted by the Bidder shall be *"fixed" and in" Pak Rupees"*
	Preparation and Submission of Bids
4	*Selection Criteria / Responsiveness Criteria:* *1. The bidder should be sole agent/exclusive distributor of Manufacturer. Authorization for this tender will not be accepted.* *2. The bidder must have done at least Five (05) Contacts of similar nature. "Similar nature means Supply of equipment etc. (Please submit copy of PO/Contract Agreement/Notification of Award).* *3. The Bidder should not have been barred by any of Provincial or Federal Govt. Deptt., Agency, Organization or autonomous body or Private sector organization anywhere in Pakistan. (Submission of undertaking on 100/- legal stamp paper).* *4. The bidder must have turnover/sales exceeding 60 Million in PKR annually in any of last three years. (Submission of Audited Annual Reports or verifiable Letter or statement from the Bank.* *5. All the proposed products should be well known, well reputed brands and widely used for its quality, performance and reliability.* *6. Latest Income Tax Certificate (NTN), Valid GST Registration Certificate.* *7. Valid PNRA registration certificate (for x-ray items)* *8. Price offered for any item should be for the entire quantity demanded, partial quantity offers shall straight way be rejected.* **Note:** Bidder must provide necessary supporting documents as proof in respect of the selection criteria mentioned above.
5	**Amount of bid security.** 2% of Bid
6	**Bid validity period.** 90 days
6.1	**Bid validity** Clarification may be requested not later than **07 days** before the submission date For **Clarification of bid purposes** only, the Purchaser's address is: Attention: ***Medical Superintendent, GMMMCH Sukkur*** Address:
7	**Number of copies.** One original One copy
8	**Amount of Performance Guarantee of** @ 2% for Bid successful Bidder
9	**Deadline for bid submission.** 29-03-2018 at 12.00 NOON
10	**Bid Evaluation:** Lowest as best quality evaluated bid

Part-V

57. Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

57.1 Definitions (GCC Clause 33)

GCC 33 (g)—The Procuring Agency is: Office of the Medical Superintendent, Ghulam Muhammad Mahar Medical College Hospital, Sukkur

57.2 Performance Security (GCC Clause 36)

GCC36—The amount of performance security, as a percentage of the Contract Price, shall be: 5%.

57.3 Inspections and Tests (GCC Clause 37)

Representative of Procuring Agency or his nominee shall inspect the procured good and ensure that it meets the tender specifications before its acceptance

57.4 Delivery and Documents (GCC Clause 40)

GCC 42—Supplier shall supply and install the goods within 30 Days after signing the contract and shall submit the following.

(i) Supplier's invoice showing Goods' description, quantity, unit price, and total amount;
(ii) Packing List identifying the contents of Supply;
(iii) Delivery note.
(iv) Warranty and guarantee certificate;

57.5 Warranty (GCC Clause 39)

The equipment shall bear Standard warranty (with free parts & labor) from the date of installation / acceptance. Upon expiration of warranty, Purchaser at its option may enter into a Service Level Maintenance Agreement upon expiry of the warranty period in accordance with terms embodied in Appendix-A hereto

57.6 Payment (GCC Clause 44)

Hundred percent (100%) of the Contract Price shall be paid upon delivery, and satisfactory Installation, integration and testing of the products at the Project site (s), subject to the production of installation and Operational Acceptance certificates duly signed by authorized Representative.

57.7 Liquidated Damages (GCC Clause 48)

If the Supplier fails to deliver the goods or perform the services within the time period(s) specified in the contract, the Purchaser shall, without prejudice to its other remedies under the contract deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.07 percent of the Contract Price for each day of delay until actual delivery or performance, up to a maximum deduction of 10% of the Contract Price. Once the maximum is reached, the purchaser may consider termination of the contract.

57.8 Resolution of Disputes (GCC Clause 51)

In the case of a dispute between the Procuring agency and the Supplier, the dispute shall be referred to the dispute resolution mechanism as defined in rule 31, 32 and 34 of the (SPPRA 2010) Amended 2013

57.9 Applicable Law (GCC Clause 53)

GCC 29.1 Contract shall be interpreted in accordance with the Sindh Public Procurement law of Sindh.

Part-VI

58. SCHEDULE OF REQUIREMENTS

The delivery schedule hereafter expressed the date of delivery required.

S.No.	Product	Items Description	Quantity	Required Delivery Schedule from the Date of Contract Award	Location
1.	**Tender for Supply of & Installation of Medical Equipment/Instruments Machinery &General Items**				

Note: Specifications of above items are attached below.

59. SAMPLE FORM

TECHNICAL SPECIFICATIONS		
QUANTITY		
Bidder's response column must be filled either YES or NO. Bidders must attach Technical literature for item quoted		
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS		
Items	Specifications	Bidder Compliance
		Yes/No / If "No" indicate your Offer
Make	Specify	
Model	Specify	
Manufacturers literature	Specify	
Type	Specify	
& Other related specification		

Form-I

59.1 Letter of Acceptance

Date: _____

To:

Medical Superintendent

GMMC Hospital Sukkur

Dear Sir:

Having examined the bidding documents, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver the required item in conformity with the said bidding documents for the sum of *[total bid amount in words and figures]* or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we will obtain the guarantee of a bank in a sum equivalent to Five (5) percent of the Contract Price/Pay order for the due performance of the Contract, in the form prescribed by the Purchaser.

We agree to abide by this Bid for a period of 15days from the date fixed for Bid opening under Clause 5 of the Instructions to Bidders, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this _____ day of _____ 2017_____.

_____ _____

[signature] *[in the capacity of]*

Duly authorized to sign Bid for and on behalf of _____

Form-II

59.2. Price Schedule in Pak. Rupees

Name of Bidder _____ NIT Number _____ Page of _____

1	2	3	4	5		6	7
Item Name	Description	Country of origin	Quantity	Unit price Delivery Duty paid (DDP) / All Taxes		Total	Remarks (if any)
				Words	Figure		

Total Bid amount in words: _____

Total Bid amount in figure: _____

Signature of Bidder _____

Note:

(i) In case of discrepancy between unit price and total, the unit price shall prevail.

(ii) The unit and total prices Delivered at main Medical Store GMMMC Hospital , Sukkur should include the price of incidental services. No separate payment shall be made for the incidental services.

59.3. Experience of Similar Supply and Installation

S. No	Assignment Description	Name /Contact Details of Client	Cost	Start Date	End Date	Remarks

(On stamp of 100 with 0.3% stamp duty) **Form-IV**

59.4. Contract Form

THIS AGREEMENT made the _____ day of _____ 20_____ between *MS GMMMC Hospital, Sukkur.* (hereinafter called "the Procuring agency") of the one part and *[name of Supplier]* of *[city and country of Supplier]* (hereinafter called "the Supplier") of the other part:

WHEREAS the Procuring agency invited bids for certain goods and ancillary services, viz., **Tender for Supply & Installation of Medical Equipment/Instruments Machinery &General Items 2017-18**. And has accepted a bid by the Supplier for the supply of those goods and services in the sum of *[contract price in words and figures]* (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSED AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

(a) the Bid Form and the Price Schedule submitted by the Bidder;
(b) the Schedule of Requirements;
(c) the Technical Specifications.
(d) the General Conditions of Contract;
(e) the Special Conditions of Contract; and
(f) the Procuring agency's Notification of Award.

3. In consideration of the payments to be made by the Procuring agency to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Procuring agency to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract

4. The Procuring agency hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

INWITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by _____ the _____ (for the Procuring agency)

Signed, sealed, delivered by _____ the _____ (for the Supplier)

59.6. Manufacturer's Authorization Form

To:

Medical Superintendent

GMMMC Hospital Sukkur

WHEREAS *[name of the Manufacturer]* who are established and reputable manufacturers of *[name and/or description of the goods]* having factories at *[address of factory]*

Do hereby authorize *[name and address of Agent]* to submit a bid, and subsequently sign the Contract with you against NIT No. *[reference of the Invitation to Bid]* for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per Clause 44 of the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids.

_____

[signature for and on behalf of Manufacturer]

Note: This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.

60. PURCHASER'S RIGHT TO VARY QUANTITIES AT TIME OF AWARD.

The purchaser reserve the right to increase/decrease or delete the quantities of goods etc at the time of award of contract and also reserve the right to enhance the quantity goods and services originally specified in the schedule of requirements without any change in unit price of other terms and conditions of goods at any time during contract period.

61. UNDERTAKING

61.1 That I/We agree whether our tender accepted for total, partial or any single item. I/We also agreed to supply and accept the said item at the rates for the supply of contracted quantity within the stipulated period shown in the contract.

61.2 I/ We understand and confirm the refund of cost different if the same good is/was supplied at lower rates to any other Government/Semi Government Institution in the Province in same fiscal year.

61.3 I/ we undertake that: that If any of the information submitted in accordance to this tender Enquiry found in correct our contract may be cancelled at any stage on our cost and risk.

62. CERTIFICATE

We guarantee to supply the stores exactly in accordance with the requirement specified in the invitation to this tender

Signature& Stamp of Contractor_____

Name_____

Designation_____

Address_____

ITEM NO. 01

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	O.T TABLES FOR GYNE, UROLOGY & GENERAL SURGERY	Qty	03

Radiolucent tabletop.
Built-in X-ray Cassette Channels
Table length 2100mm
Table width 500 mm or more with rails.
Table Height (min) 690 mm to (max) 1040 mm
Lateral tilt - 20 / +20 degree or more
Trendelenburg-25/+25° maximum from horizontal
Reverse Trendelenburg 25° maximum from horizontal
Back rest adjustment up 80°/+12° max
Leg plate adjustment up 10°/100°/100° maximum.
Flex / Reflex 192°/100°
Sliding Table Top Upto310mm
Auto Leveling
Spread of split leg plates 90 degree.
Manual Head plate adjustment -90 / +90 degree.
Patient Weight capacity 200kg or more.
Central Break
Kidney Bridge 120mm height
Manual Over Ride
Complete with : Anesthesia Screen, Arm Boards ,lithotomy pole, drain pen, Basic Straps , Safety Clark Sockets
Complete High Quality S.S Base
Battery backup Up to 4Hrs

OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 02

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	SHOE WRAPPING MACHINE FOR GYNE, UROLOGY & GENERAL SURGERY	Qty	03

Capacity 1000pcs or more
Life 300,000 time or more
Standby time ≤ 80w
Preheating time < 120s
ABS Material
Additional 20 rolls of wrapping

OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 03

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	O.T LIGHT- DOUBLE DOOM SURGICAL LIGHT WITH BATTERY + CAMERA + MONITOR & CAMERA SYSTEM WITH COMPLETE INSTALLATION FOR GYNE, UROLOGY & GENERAL SURGERY	Qty	03

Note : OT LIGHT & CAMERA SYSTEM SHOULD BE QUOTED SEPARATELY

LIGHT -1

- Dimension Cupola: 700mm
- Light Intensity : 160,000 LUX at 1 meter

LIGHT -2

- Dimension Cupola: 500mm
- Light Intensity : 90,000 LUX at 1 meter
  - Color Temp: Adjustable from 3500 to 5000K
  - Color rendering Index: ≥ 93
  - Diameter of light spot: 120-350 MM
  - Illumination Depth: 700-1500 MM
  - LED Service Life: 50000 Hours
  - Control Via LCD
  - Battery Backup: ≥ 2 Hours

CAMERA:

- Resolution: ≥ 200 Megapixel 920 x 1080
- Communication Mode: RS232
- Communication Protocol: HITACHI/SONY/VISCA or Equivalent
- Connector: LVCMOS-36PFPC
- Compatibility: 110/LVDS/30P
- Sensor Type: 1/2.9" CMOS
- Scan Mode: Progressive Scan
- Day and night system: Color/Black and white/Automatic
- Minimum Illumination: Color 0.1 Lux, Black and white: 0.01LUX
- Exposure Mode : A/M
- White Balance: Automatic/Indoor/Manual
- Focus Mode: A/M
- Gain Control: A/M
- Picture Effect: Automatic/Color/Black and white/Negative

Electronic Amplification

- Back Light Compensation: On/OFF

Image Freeze:

- Mirroring Function: Support (Horizontal Mirror + Vertical Mirror)

- Image Rollovers: Support

Generic Specification:

- Dimension: 56(W) x 56 (H) x 110 (L) MM
- Work Temperature And Humidity: -10C ~ 50C, 10% RH ~ 60%
- Storage Temperature and Humidity: -20C ~ 60C, 10%RH ~ 80%RH
- Synchronization Mode: Inter-Sync
- Video Output: Digital Signal
- SNR: ≥ 50DB (AGC OFF)

LENS

:

- IRCUT : IRCUT Double Filter Automatic Switching
- Automatic Diaphragm: Support
- Optical Lenses : 10X, F=5MM
- Field Angle : H: 47 (W) ~ 5.3 (T), V : 35.6 (W) ~ 3.96 (T)

Blank Screen:

- Wide Dynamic : D-WDR
- DNR : 2D-DNR
- Electronic Shutter : 1/30S~1/10,000S

Control Ratio : Adjustable
Anti-Fog Function : Support
Marginal : Support

LCD Monitor

Screen Size : ≥20.5"
Display Area : 475.2mm (W) x 267.3mm(H)
Max Resolution : 1920 x 1080
Display Color : 16.7 M
Pixel Pitch : 0.2475 (H) x .2475 (V)
Luminance : 300 cd / m2
Viewing Angle : 85/85/75/65
Response Time : ≤ 9MS
Field Frequency : 50Hz, 60Hz, 70Hz

OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 04

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ANESTHESIA MACHINE WITH INTEGRATED VENTILATOR AND VAPORIZER FOR GYNE, UROLOGY & GENERAL SURGERY	Qty	03
Standard/Cascade flow tubes. -Cascade flow tubes with with electronic flow display providing numeric representation of gas flow -Virtual flow display (VFD) numeric and graphic -Virtual flow display also provides touch screen control of back lighting			

-03 Gas (O2 / N20 / Air) with ventilator Comprising of:-
Gas (Oxygen / N2O / Air)
Two Vaporisers Mounting
03 Gas Rotameter (O2 + N20 + Air)
Mechanical Anti – Hypoxic Device.
Non – inter changeable pipeline inlets
Pipeline & Cylinder gauges for O2 + N2O+ Air alongwith hoses.
Pin Index cylinder yokes.
Gas Outlet and O2 flush control.
02 Auxiliary 02 power outlets.
Lockable castors.
Monitors Shelf.
Impact resistant & easy to clean frame.
Stainless steel work surface.
Absorber support arm.
03 Gas flowmeter for O2 + N2O + Air.
Sigma Delta Sevoflurane Vaporizer.
Flow and Temperature compensated (Service Free)
Base lockable 6" Drawer unit.
Main power outlet 220 / 240 Vac (IEC X 4)
Writing Shelf / Platform.
Sharp holder.
High suction Controller with receiver jar of
Ltrs complete with connections and fittings.
SPA Carbon Dioxide Absorber with Bag
Vent and By Pass complete with detachable
The system must have built in heater to control moisturizer
Electronic Anesthesia Ventilator MODEL NO: AVS
Inch Large Colour Touch Screen Anesthesia Ventilator
With Built – in Oxygen Monitor,
Ultra – accurate Spirometry
With advance Ventilation (SIMV,SMMV and PSV)
Combines sophistication and ease of use,
Volume and Pressure Ventilation plus SMMV,SIMV,PSV and PEEP
Single / dual waveform display
High quality , multi-option product with flexible specification
Integrated Oxygen Monitor and spirometry
Inverse I:E Ratio capability
Electronic PEEP
Autoclavable Latex free bellows
Oxygen or Air drive gas
Battery Back up
Magills Breathing Circuit
Tidal Volume from 5ml to 1600ml.
Should have 30 minute battery backup

Gas Agent monitoring (Agent Analyzer) and Ende tidal CO2 (EtCO2) monitoring of Same Brand should be quoted as Option.

OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 05

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	AIR PURIFIER	Qty	05

Integrated 7" Touch Screen
Multi-functions control panel with LCD touch screen.
-Plug & Play system
- Bactericidal, veridical, fungicidal (including spores) actions and molecular decontamination
Decontamination kinetics CP10(particles 0.5µ)
-Bacteriological class M5/B5
-Particular class ISO 8 / ISO 7 / ISO 6
- microbiological reduction: up to 99.999% in a single pass
- very low sound level: 42 dBA at 900 m3/h
-Device capable of running 24/24hrs, 7/7 days
-Air flow speed adjustable up to 1200 m3/h
-Mobile
-Easy to move by a single person

TECHNICAL CHARATISTICS

Air flow	300 -1200 m3/h (with constant air flow regulation)
Air supply	Via plenum
Mobility	4 wheel
Control panel	Multi-function touch screen
Dimension (LxlxH)	740 x 500 x1550 mm
Weight	100 kg
Air intake filtration	G4 + f7 (low pressure drop filter made of polypropylene)
Air supply filtration	H14 (low pressure drop filter made of polypropylene) – single or double stage
Photo catalysis module	Photo catalysis lamp
Probe VOC, temperature, humidity	Probe E4000 at air intake
Particular Probe	Probe P4000 at air supply
Pressure probe	air intake, air supply , fan
Remote control	touch pad 7"WiFI (optional)
Internal structure	"double skin" galvanized steel panels
External structure	Thermoformed panels
Electrical power	120 -230 V/ 50-60 Hz
Interface language	French / English / Spanish / German / Chinese
Power consumption	450 W

Air flow (day /night/ auto/ manual) in m3/h
Humidity
Temperature
Level of VOCs
Particulate concentration
Alarms on all points (probes, filters, fan...)
Maintenance menu (date of filters changing, or other type of maintenance operation)

Secured information with access code
OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 06

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	BABY INCUBATOR	Qty	06

CONTROL MODULE

Temperature
Manual (air)
Servo controlled (newborn)
Humidity
Passive
Servo-controlled
Removable water reservoir
Fixed water reservoir
Oxygen
Passive

CONTROL MODULE

Control module panel
LCD display (alphanumeric)
Skin temperature sensor (central)
Key board blocking
Heating indicator
Language selection (English / Spanish / Portuguese)
Removable

BABY COMPARTMENT

Baby Compartment
Transparent acrylic (non-toxic and self-extinguishable)
Front door for intensive care
Five oval polycarbonate portholes
One round iris port
Four holes for entrance of sensors and tubes (optional back door)
Opening for nebulizer

BED

Radiolucent plastic structure
Displaceable: the bed may be displace out of the dome, making it easier for access to the patient
Trendelenburg and proculive position high and low horizontal

ACCESSORIES

Double wall

ACCESSORIES

Nebulizer	hood for oxygen-therapy	big drawer
Assistant sockets	monitor support	disinfection tank
Breathing circuit support	adjustable serum support JV pole	assistant temperature sensor
Led phototherapy	small serum support-fixed JV pole	Gel Mattress
Dome with front and back access cap	Electric height adjustment system	Observation lamp
Manual re-animator	System for continuous tiling of the bed	
Y-type oximetry sensor	Double Drawer	

AUDIOVISUAL ALARM

Operation supervision

Temperature

Humidity

MECHANIC SPECIFICAITONS

Carbon-steel external box with anti-ferruginous treatment

Internal box in non-ferrous material

Dimensions without accessories (height X width X length (cm))

Power requirements

Voltage	110/220 Vac (Automatic selection)
Frequency	50/60Hz
Power	V1 380VA – V2/V3.700VA
Protection fuses (F1/F2)	V1: 3A V2/V3: 10A

Control Modules

	Temp air mode	Temp NB mode
Display range	0°C to 50°C	0°C to 50°C
Display resolution	0.1°C	0.1°C
Accuracy	±0.5°C	±0.3°C

Oxygen servo control

Display resolution	1%
O_2display range	0 to 99 %
O_2controlrange	21 to 65%

General specifications

Heating element	Stainless steel heater
Air temperature control mode	20°C to 39°C

NB temperature Control	20°C to 38°C	
Control Modules Humidity		Weight
20 to 100%	0 to 9.999Kg	
1%	1g	
±5%	±5g	

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 07

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PEADS VENTILATOR	Qty	05

Parameters

Monitored parameters
Times constant
Expiratory
I:e
Ti/ttot
Peak inspiratory floe:
(distal&proximal)
Expiratory tidal volume:
(Distal & proximal)
Minute Volume:
(Distal & Proximal)
Compressible volume
FiO_2
Leakage
Respiratory frequency
Peak pressure
Mean pressure
Base pressure (peep)
Inspiratory time
Expiratory time
Tendencies
Alarms log
Inspiratory resistance
Expiratory resistance

PROGRAMMABLE PARAMETERS

FiO_2

Flow wave form:

Square

Sinusoidal

Ascending

Descending

50% descending

Rise time

Inspiratory time

Respiratory frequency

Tidal volume

Pressure control

Pressures support

Peep

Sensibility

Pressure / flow

Apnea time

Inspiratory pause

Sigh

Expiratory sensibility

LUNG MECHANICS

Auto peep

Dynamics compliance

Static compliance

Slow vital capacity

PO.1

Tobin index

Stress index

AUXILIARY FUNCTION

Nebulizer

100% Oxygen

Manual inspiratory Trigger

TGI

ALARMS

Prgrammable

Maximum pressure

Minimum pressure

Max: expired minute volume

Min: expired minute volume

Maximum expired TV

Minimum Expired Tv

Max. respiratory frequency

Apnea

PEEP

FiO_2

AUTOMATIC

Interrupted Cycle

Inverted I:E Ratio

POWER FAILURE

Low Gas supply pressure

Low Battery

Safety system

Internal battery

Automatic gasses compensation

Automatic opening of the pressure regulator values

Automatic notification of the hours of use without locking the equipment

Possibility of operating without the expiratory flow sensor or without the O_2 cell.

OPTIONALS

Volumetric capnography

Inspired CO_2

$ETCO_2$

Heart rate

SpO_2

SpO_2 / FiO_2

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED

USA/EUROPE/BRAZIL/JAPAN/UK

ITEM NO. 08

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	SUCTION MACHINE	Qty	20

Two 2500 ml Autoclavble PC collection jar with over

Flow valve system

5 caster stand with brakes

Antibacterial and hydrophobic filter

1 Vacuum indicator (kPa and bar)

1 Vacuum regulator

Silicone autoclavable tubes

Motor	Oiless and maintenance-free piston pump
Power Feeding	230V-50 Hz
ISO 10079-1Classification	HIGH VACUUM / HIGH FLOW
Max free air flow	40 l/min

rate	
Max Vacuum (adjustable)	-0.80 Bar -80 kPa -600 mmHg
Noise Level	61,5 Db
Power consumption	110 VA
Fuse	1 x F 4 A 250 V
Duty cycle	Non-stop operation
Weight	6,5 Kg
Size	32x99x30 cm

OR EQUIVALENT
ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 09

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DEFIBRILLATOR	**Qty**	**05**

- 360 J energy, Biphasic Waveform Technology
- 7" color graphic TFT LCD display or better.
- Built-in standard 12-lead ECG
- Synchronous or asynchronous mode
- Semi-automatic (AED) or manual control
- Operation from paddles
- Short charging time less than 5 sec or better
- Charging time for fast action start from 2.7 secs to 200 J , 4.5 secs to 360 J
- Alarm functions
- Should have 3-channel high-resolution recorder or better.
- Should have **Pacemaker with** Mode Demand (VVI), Fixed Rate (VVO), Type Transthoracic non-invasive, Waveform Rectilinear, constant current
- Pulse Width 40 msec, Current Amplitude 0 and 20..200 mA, 1 mA resolution
- Rate 30..200 ppm, 1 ppm resolution
- Patient Impedance Range 0..1000 ohms with indicator
- Should have Optional upgradeable for ETCO2 , SpO2, NIBP
- Should have available option any time upgradeable for electrodes for internal defibrillation.
- Battery Capacity More than 5 hours continuous monitoring or 200 shocks at 200J Indicator

5-stage indicator on screen and LED indicator when turned off, Must be Charge time Less than 2 hours for full charge.

- Report Browser Software On PC, from exported USB data

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

ITEM NO. 10

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ULTRASOUND MACHINE	Qty	01

DIGITAL GENERAL PURPOSE ULTRASOUND MACHINE (PORTABLE)

RADIOLOGY DEPT.

Digital Ultrasound scanner with digital beam former System should be capable to handle multi frequency probes from 3.0 MHz to 12.0 MHz or above.
Display MODES: B, B/B, B/Z , B/M, M
Multi frequency 2 .8, 3.5 up to 5 MHz Convex Probe

Modes: B.M and combination thereof.
B/Z mode.
Image adjustments :
a) B-gain, M-gain 37 to 100db
b) Dynamic Range 36db to 94db
c) γ Correction 5 types (max 10.)
d) sweep speed 5 steps
A. Mode: indicate the intensity of echo signal by easy operation.
Gray scale: 256
Sensitivity time gain: 8-12 steps
Depth: 24 cm or more
Focusing system: 3 steps and dynamic
Adjustable acoustic power (20% to 100%)
Keyboard: Alpha numeric with track ball
Tissue Harmonics: Tissue Harmonic imaging
Cine memory of 64 frames minimum up to 255 frames
Image storage with review facility. USB Port for data transfer
Post processing: Image inversion, edge/echo enhancement correlation / persistence/Dynamic range/Gamma Curve.
Image magnification 4x or more in real time.
Monitor: 12" SVGA Color LCD /TFT
Two probe connectors active or more
Measurements package: Abdominal, Obs , Nt and AFI
Net Wright 11 Kg
Local made mobile fiber top trolley
Accessories:
1. Thermal Printer 256-Gray scale
2. Compatible UPS
3. 50 High Density Rolls.

Optional :
Multi-frequency 5.0,7.5 up to 9 MHZ Endo- cavity Probe

ORIGIN: UK, WESTERN EUROPE, JAPAN/OR EQUIVALENT

ITEM NO. 11

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DIGITAL HIGH END COLOR DOPPLER SYSTEM WITH SHEARWAVE ELASTOGRAPHY AND STRAIN ELASTOGRAPHY	Qty	01

1- Top of the latest color Doppler with more than 1,500,000 receiving / processing channels. Fully digital beam former having 2D/M-Mode and Doppler facilities, (PW, hpra, & color flow imaging) with a high resolution imaging Doppler single quality. Having dicom compatibility and 4D imaging with color flow in convex probe, linear probe and endocavity probe. Machine should be upgradeabe to cw.

B- MODE SPECIFICATION:

A) Sector Scan angle variable in four steps.
B) Viewing depth: 40CM minimum (Both in B& W and color)
C) Frame rate: 1080 F/sec or more.
D) Built in cone loop with ability to vary reverse and slow motion of display; internal memory 512 MB or more.
E) Real time and freeze image magnification at least 8x or more with panning for real, freeze and memorized images.

2. M- MODE SPECIFICATION:

A) Magnification: X2 or More.
B) Sweep speed: slow, Medium, Fast.
C) Color Display

3. D- MODE SPECIFICATION:

A) Pulse- wave Doppler measurable velocity Range.
B) HPRF Doppler.
C) **CONTINUOS-WAVE DOPPLER (OPTIONAL):**
-Measurable velocity rabge: steerable.
-Must have Doppler Beam Streering and BI-Directional Stereo-Audio.
D) Colorized spectrum display.
E) Automatic Baseline and velocity range control.
F) Live measurement for Doppler spectrum.

4. COLOR DOPPLER MODE SPECIFICATIONS:

A) -CW (optional) and PW Doppler Must be continuous Steerable in the color blood flow image with mode in real time.
B) - 2D Image with color, CW (Optional) / PW Doppler.
C) -Windows Based System for easy usage with programmable control panel Keys.
D) -Tissue Harmonic Imaging with 4 thi or more frequency.
E) -Power Doppler.
F) -Triplex mode for simultaneous display of color B/M and D-Mode Displays\
G) -Maximum Detectable velocity range;
H) PWD= 1800CM or more, CWD=2100CM or more
I) -Lowest detectable velocity range; 0.03 CM/s for PWD and 3.2 cm/s for CWD

J) -Sample volume 1-20MM
K) -System dynamic range 300 dB or more.
L) -Independent steering of color box and linear beam +30.

5. MEASUREMENT PACKAGE:

To provide comprehensive software package for Measurement of Distance, Circumference, Area, time, depth, velocity, frequency, heart rate, volumes, Nuchal thickness measurement software to be provide as standard.

6. SYSTEM COMPLETE WITH FOLLOWING FACILITIES AND ACCESSORIES

A) -21-Inches Minimum TFT/LED color monitor, with resolution 1280 x 1024 pixels Minimum.
B) -Foot-Switch
C) Minimum 4 Transducer connector for transthorasic probes.
D) -DVD/CD Drive for image storage to be built-in to the system.
E) -750GB or more hard disk to be built-in to the system.
F) -Built in dicom compatibility.
G) -Touch command screen control at least 10-inches color LCD/TFT.
H) –Full Dicom (Upgradable)

7. UPGRADEABILITY:

-System software must be upgradeable.

8. STANDARD PROBES :

A) -2-6 MHZ Multi-frequency Single crystal convex probe for B/M/CDI/PW and shear wave elastography (FDA APPROVED)
B) -5-11 MHZ multi-frequency linear probe for vascular studies.
C) -7-14 MHZ multi- frequency linear probe for B/M/CDI/PW for breast imaging strain elastography and shearwave elastography.
D) -4-9 MHZ multi-frequency multi-frequency intracavity prpbe for prostate.

9. STANDARD RECORDING DEVICES:

A) –Thermal paper prnter with fifty rolls of paper (Black & White).
B) –UPS online with 30 minutes back up time for the system (Emerson, APC, Riello, G.E.)
10. Needle tip enhancement software for biopsy needle visualization
11. Tissue Doppler imaging mode.
12. Tissue harmonic imaging without contrast with 4 harmonic frequencies.
13. Pules inversion / differential tissue harmonic imaging to enhance effective wide band frequency range to provide simultaneously spatial resolution, contrast resolution and increased penetration using two transmission pulses at different frequencies simultaneously and reception at harmonic as well as differential component.
14. Auto Image optimization / quick scan imaging for automatic STC / GAIN and Doppler spectrum Adjustment with optimal image quality by using one touch operation.
15. B-Flow / dynamic flow imaging / E-flow.
16. Trapezoid imaging / virtual convex imaging with linear probe.
17. Compound / Aplipure imaging for both frequency compounding and spatial compounding in B/W and color mode.
18. Panoramic / siescape / logic view imaging with measurements.
19. N-Sight / Adaptive suppression / precision imaging / cross beam to enhance B-mode imaging detailed in layers and bound aries and sharpened outlines of the lesions and reduce cluttering.
20. B-flow with color and xdclear -2/micro CPA/Superb MICRO Vascular imaging with fusion 3D color imaging to clearly show blood flow in tiny vessels liver capsula gall bladder wall ETC without using 4D volume probe.
21. Dedicated software to visualize micro calcification in breas imaging.
22. Shearwave Elastography with quantification and adjustable area based minimum 2x3 CM display for body organs specially liver with convex & linear probes to visualize tissue stiffness by generating images through shear wave propagation, speed and elasticity modes (shearwave should be FDA

approved). 3D Elastography also required.

23. Live strain rate elastography with quantification for body organs speaially breast to visualize lesions
24. Contrast Harmonic imaging upgradable
25. Fusion imaging of CT/MRI 3D Volume data to synchronize with ultrasound imaging complete with hardware & software upgradable.
26. System input reqirement :220v-240V, 50-60HZ
27. Upgradable: system should be upgradable to 2D

G) High resolution imaging doppler signal quality.
H) Having dicom compatibility
I) Upgradeable to strain ELASTOGRAPHY, and 4d imaging on convex and ENDOCAVITY probe.

B-MODE SPECIFICATION :

a. Sector scan angle variable in four steps.
b. Viewing depth: 40cm or more (both in B&W and color).
c. Built in cine loop with ability to vary reverse and slow motion of display; internal memory 300mb.
d. Real time and freeze image magnification at least 25x or more with panning for real, freeze.
e. Frame rate: 500 frames minimum

M-MODE SPECIFICATION :

- Sweep speed: slow, medium, fast.
- Color display of m-mode.

D-MODE SPECIFICATION :

- Pulse-wave doppler measurable velocity range.
- Hprf doppler.
- Colorized spectrum display.
- Automatic baseline and velocity range control.
- Live measurements for doppler spectrum.
- Sample gate size: 1 – 20.
- Doppler prf range:
  - Pwd: 0.3khz to 52.0 khz
  - Cwd (option): 1.4khz to 52.0 khz
- Maximum detectable velocity range:
  - Pwd: 1850cm/s
  - Cwd (option) : 2200cm/s
- MINIMUM DETECTABLE VELOCITY RANGE:
  - Pwd: 0.03cm/s
  - Cwd (option): 3.2cm/s

COLOR DOPPLER MODE SPECIFICATIONS :

- Pw doppler must be continuous steerable in the color blood flow image mode in real time.
- 2d image with color, cw (option) wand pw doppler.
- Windows based system for easy usage with programmable control panel keys.
- Tissue harmonic imaging with 4^{th} i frequencies.
- Power doppler.

- Triplex mode for simultaneous display of color b/m and d-mode displays.
- 260 db system dynamic range or more.
- Independent steering of b and color 30^0 separately.

MEASUREMENT PACKAGE :

- To provide comprehensive software package for measurement of distance, circumference, area, time depth, velocity, frequency, heart rate, volume.
- Auto-nuchal thickness measurement software to be provided as standard.

SYSTEM COMPLETE WITH FOLLOWING FACILITIES AND ACCESSORIES:

- Full 19-inches or more display area for diagnostic imaging lcd/tft color monitor.
- Monitor resolution 1280 x 1024 pixels minimum .
- Active transducer connector for transthurasic probes.
- Dvd/cd drive for image storage to be built-in to the system.
- At least 500gb hard disk drive to be built-in to the system.
- Dicom media storage.
- Touch command screen control at least 8-inches color lcd/tft.
- Or more different users presets.

UPGRADEABILITY :

- System software must be upgradeable.

STANDARD PROBES :

- 2-6MHz Multi-Frequency Convex Probe For B/M/Cdi/Pw.
- 5-11MHz Multi-Frequency Linear Probe For B/M/Cdi/Pw.
- 4-10MHz Multi-Frequency ENDOCAVITY Probe For B/M/Cdi/Pw.

TISSUE DOPPLER IMAGING MODE.

- Tissue harmonic imaging with 4 harmonic frequencies.
- Auto image optimization/quick scan imaging for automatic stc / gain and doppler spectrum adjustment with optimal image quality by using one touch operation.
- Trapezoid imaging / wide view imaging.
- Sono ct/compound/aplipure imaging for both frequency compounding and spatial compounding in B/W and color mode.
- Adaptive Suppression Imaging /Precision Imaging To Enhance B-Mode Imaging, Detailed In Layers And Boundaries And Sharpened Outlines Of The Lesions And Reduce Cluttering

ACCESSORIES :

A. B/W Thermal Printer.
B. Compatible UPS (imported).

OPTIONAL (MUST BE QUOTED SEPARATELY. IF IN CASE THESE ARE NOT QUOTED, OFFER WILL NOT BE ENTERTAINED):

A. 7-14 MHZ Multi-Frequency Linear Probe For B/M/Cdi/Pw For Breast Imaging With Strain ELASTOGRAPHY.
B. Shear wave ELASTOGRAPHY with measurement for body organs specially for liver with convex probes to visualize tissue stiffness by generating images through shear wave propagation, speed and elasticity modes. Shear wave with

propagation maps.

C. B-flow with color and xdclear-2/micro cpa/ superb micro imaging/vascular enhancement/b flow with color/spectral to clearly show blood flow in tiny vessels.

D. Smart 3d for the acquisition of volume data and display of 3d images in b/w as we as color without using a 4d transducer.

E. Advance dynamic flow with color and spectrum / micro cpa color with Doppler spectrum/color b flow with doppler spectrum to visualize the flow in tiny vessels like gallbladder wall, liver capsula etc.

F. 3-7 mhz multi-frequency 4d volume convex probe for 4d imaging with rendering modes including volume rendering, maximum intensity projection (mip), multiple plane rendering (mpr) and cavity also with multi view (.simultaneous coronal, sagittal and oblique view), and full volume view.

G. Multi frequency 4d volume ENDOCAVITY probe for 4d imaging.

H. Hd imaging / luminance imaging process technology to make 3d/4d images of fetuses and anatomical structures appears more realistic.

5-10MHz Multi frequency Biplane End rectal Probe

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED

USA/EUROPE/JAPAN/UK

ITEM NO. 12

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	LAPROSCOPY COMPLETE SET (A) LAPROSCOPE =01 FOR ADULT FOR GENERAL SURGERY (B) (i) LAPROSCOPE (ii) HYSTEROSCOPE (iii) COLPOSCOPE (GENERAL SURGERY + GYNAE) LAPROSCOPE MUST BE COMPATIBLE WITH HYSTEROSCOPE AND COLPOSCOPE	Qty	01 Set

Specification

• Telescope, 10 mm, 0°, HD, quick lock, autoclavable	01 Unit
• Light guide, Cable,Plug type 3cmm CF Type	01 Unit
• Trocar tube, 11mm	01 Unit
• Trocar spike, 11mm	01 Unit
• Trocar tube, 5.5 x 80 mm, with stopcock	01 Unit
• Trocar spike, 5.5 x 80 mm, triangular	01 Unit
• Reduction tube, 10-5 mm, insulated	01 Unit
• Needle, acc. to Veress, 150 mm	01 Unit
• Grasping forceps "HiQ+", 5 x 330 mm, Ergo	01 Unit
• Grasping forceps "HiQ+", 5 x 330 mm, fine tooth,	01 Unit
• Grasping forceps "HiQ+", 5 x 330 mm, Johann, single action, Ergo	01 Unit
• Dissection forceps "HiQ+", 5 x 330 mm, Maryland, Ergo	01 Unit
• Grasping forceps "HiQ+", 5 x 330 mm, claw type, Ergo	01 Unit

- Grasping forceps "HiQ+", 5 x 330 mm, DeBakey, Ergo 01 Unit
- Grasping forceps "HiQ+", 10 x 330 mm, wave type, Ergo 01 Unit
- Biopsy forceps "HiQ+", 5 x 330 mm, severing, Ergo 01 Unit
- Hook scissors "HiQ+", 5 x 330 mm, Ergo 01 Unit
- HF-electrode, hook, with suction channel, 5 x 330 mm 01 Unit
- HF-cable, monopolar, 3.5 m, UES-30, Erbe Intl. and 01 Unit
- Valleylab (new) HF-unit to 3 mm pin surgical instrument 01 Unit
- HF-cable "HiQ+", bipolar, 3.5 m, für Olympus UES HF unit 01 Unit
- Handle, for suction/irrigation tube 01 Unit
- Suction/irrigation tube, 5 mm, for A5796 01 Unit
- Tube, set, for 2 bags, 01 Unit
- Spare cannula, for WA51203A 01 Unit
- Needle, for fascial closure 01 Unit
- Clip applicator, 10 x 330 mm, for clips medium/large A5635 01 Unit
- Scissors "HiQ+", 5 x 330 mm, Metzenbaum, Ergo 01 Unit
- Johan Bipolar Forceps HiQ 5X 330 mm 01 Unit
- Hirsch Bipolar Forceps HiQ 5X 330 mm 01 Unit

Automatic Smoke Evacuation 01 Unit

An automatic smoke evacuation feature is enabled on the UHI-4 when it is coupled with a new or existing energy platfrom

This will help provide a clear and unobstructed view of the surgical filed during laparoscopic procedures.

Adjustable Smoke Evacuation

In order to reduce the amount of CO2 used during surgery, the UHI-4 allows for the smoke evacuation to be independently

set on the fornt panel of the unit. The Smoke evacuation can be toggled between a High and Low function.

Specifications.

Abdominal Pressure Control	3 to 25 mmHg
Flow Rate Setting	45L/min
Cavity Mode	Normal Small
Gas Supply From Wall Pipeline	Connectable
Alarm	Over Pressure of abdominal cavity/Tube clogging/ Insufficient supply of gas
Smoke Evacuation Function	Available (when connected to the below devices) UES-40 Electrosurgical Unit SonoSunrg-G2 Sono Surg Generator
OR Integration	OR Integrated

Video System Center

Rated voltage	100–240 V AC; within ±10%
Power Supply	
Rated frequency	50/60 Hz; within ±1 Hz
Rated input	400 VA
Size	
Dimensions (maximum)	383 (W) × 199 (H) × 506 (D) mm

Weight	19.3 kg
Observation	
Analog signal output	VBS composite and Y/C; simultaneous outputs possible
Digital signal output	HD-SDI (SMPTE292M), DVI (WUXGA,1080 pixels, or SXGA can be selected)
Electronic zoom	The image enlargement level can be selected. 3 modes (1.0×, 1.2×, 1.5×)
	The optical-digital observation can be performed. The endoscope compatible with the optical-digital observation is required
Optical-digital observation	NBI observation
	IR observation
Remote control	The following ancillary equipment can be controlled (specified models only).
	Portable memory / · Video recorder / · Video printer / · Image filing system
Documentation	TIFF: no compression
Recording format and number of recording images in internal memory	
	JPEG (1/5): Approx. 1/5 compression
	JPEG (1/10): Approx. 1/10 compression
	These are the numbers of the recording images when both HDTV and SDTV images are recorded. These numbers vary depending on the images.
Examination lamp	LED
Cooling	Forced-air cooling
Illumination	WLI or NBI observation
Observation mode	IR observation (when connecting to
Automatic brightness adjustment method	LED drive current control
Automatic Brightness Adjustment	Automatic exposure 17 steps
	Auto
	Manual
	Type of protection against Class I
	Electric shock
Classification (Medical Electrical Equipment)	Degree of protection Depends on applied part. Also refer to applied part (camera
against electric shock of applied part	head or video scope).
Degree of protection	the video system center should be kept away from flammable gases against explosion

Autoclavable Camera Head

Observation	Pickup system CMOS image sensor (3×)
	Magnification ratio Focal length f = 15.9 to 31.3 mm
NBI Observation Mode*	Available
IR Telescopes Observation Mode*	Available

Electronic Shutter Function	Available
Electronic Zoom Function	Available
Cleaning/Disinfection/ Sterilization	Cleaning/disinfection Immiscible in disinfectant solution Sterilization Autoclavable/ETO /Sterrad
Classification (Electro medical Equipment)	Type of protection against electric shock TYPE BF
Degree of protection against explosion	The camera head should be kept away from flammable gases
High Resolution Medical Grade LCD Color Monitor 24" (Sony)	
Type	a-Si TFT Active Matrix
Pixel efficiency	99.99%
Viewing angle (up/down/left/right, controls 89/89/89/89 (typical)	
Scan	Normal 0%Over Scan 20%
Effective picture size	518.4 x 324.0613.2 mm (wh, dia)(201/2 x 127/8.241/4 inches
Resolutions	H.1920 dots V1,200 lines
Aspect ratio	16.1
Input	
Composite	(NISC/PAL)connector, BNC (1), Vp-p ±3 dB sync negative
Y/C	Mini DIN 4-pin (x1) Y: 1.0 Vp-p ±3 dB sync negative, C: 0.286 Vp-p ±3 dB (NTSC burst signal level) 0.3 Vp-p ±3 dB (PAL burst signal level)
RGB, Component	BNC (x3) RGB Input: 0.7 Vp-p ±3 dB (Sync On Green, 0.3 Vp-p sync negative) Component Input: 0.7 Vp-p (75%Chominance standard color bat signal
External sync	BNC (x1)
Connector	0.3 Vp-p to 4.0 Vp-p ±bipolarity ternary or negative polarity binary
HDI 5 Input Connector	D-sub 15-pin (1) R/G/B input 0.7 Vp-p sync positive (Sync On Green 0.3 Vp-p sync negative) Sync: TTL level (polarity free: H/V separate sync) Plug & Play function: corresponds to DDC2B
DVI Input	DVI-D (1)
Remote	Parallel remote Modular connector 8-pin (1)
Out Put	
Composite	BNC (x1), loop-through, with 75 ohms automatic terminal function
Y/C	Mini DIN 4-pin (x1), loop-through, with 75 ohms automatic terminal function
RGB, Component	BNC (x3), loop-through, with 75 ohms automatic terminal function
External sync	BNC (x1), loop-through, with 75 ohms automatic terminal function
General	
Power requirements	DC IN: 24 V 3.5 A 5 V 0.030 A (Supplied from AC adaptor AC IN: 100V TO 240 V 50 Hz/60 Hz 1.53 A-O.58 A DC OUT: 24 V 5.0 A 5 V 0.060 A

Operating temperature	0°C to 35°C (32°F to 95°F)
Recommended temperature	: 20°C to 30°C (68°F to 86°F)
Humidity	30% to 85%
Storage and transport temperature	-20°C to +60°C (-4°F to +140°F)
Storage and transport humidity	0% to 90%
Storage and transport pressure	700 hPa to 1060 hPa
Supplied accessories	AC power cord (1), AC plug holder(AC-100MD) (1) (AC Power cord) (1) AC Plug holder(2) Instructions for Use (1) CD-ROM (1) Using CD-ROM Manual (1) Quick Reference (1)

Local Video Trolley with anti castor and keyboard drawer

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED
USA/EUROPE/JAPAN/UK

S.NO	DESCRIPTION	
	GYNAE & OBS DEPARTMENT	
1	**HYSTEROSCOPE**	
1	Telescope, 10 mm, 0°, HD, quick lock, autoclavable	
2	Sheath, 4.5 mm, continuous irrigation, 3 Fr. channel	
3	Sheath, 5.5 mm, 5 Fr. channel, continuous irrigation	
4	Grasping forceps, shark teeth, 5 Fr., semiflexible	
5	Scissors, 5 Fr., semiflexible	
6	Biopsy forceps, 3 Fr., semiflexible	
7	Biopsy forceps, 5 Fr., semiflexible	
8	Grasping forceps, mouse tooth, 5 Fr., semiflexible	
9	Palpation probe, hook type, 3.5 mm	
10	Grasping forceps, claw type, 12 mm x 365 mm	
11	Myoma drill, 10 mm x 330 mm	
12	Bipolar Disecting Electrode Semirigid 5 Fr. Length 36 cm	
13	HF-electrode, needle, 5 Fr., flexible	
14	HF-electrode, button, 7 Fr., flexible	
15	Polypectromy Loop, Monopolar 5 Fr. Length 34cm	
16	Monopolar High Frequency Cord. With 4 mm plug length 300cm. formodles Erbe type T. older models and Ellman	
17	Light guide, Cable,Plug type 3cmm CF Type	
2	**SURGIPUMP FOR LAPAROSCOPIC SURGERY**	
	Technical Data	
	Power	230V
	Frequency	50/60 Hz
	Consisting Of:	

	Surgipump	Suction / Irrigation Pump 230V	
		Suction / Irrigation Tube 4.5mm Channel, 5x330mm	
		Reusable Tubing Irrigation	
		Foot Switch	
		Hand Control Switch	
3a	**Video System Center**		
	Rated voltage	100–240 V AC, within ±10%	
	Power Supply		
	Rated frequency	50/60 Hz, within ±1 Hz	
	Rated input	400 VA	
	Size		
	Dimensions (maximum)	383 (W) × 199 (H) × 506 (D) mm	
	Weight	19.3 kg	
	Observation		
	Analog signal output	VBS composite and Y/C, simultaneous outputs possible	
	Digital signal output	HD-SDI (SMPTE292M), DVI (WUXGA,1080 pixels, or SXGA can be selected)	
	Electronic zoom	The image enlargement level can be selected. 3 modes (1.0×, 1.2×, 1.5×)	
	Optical-digita observation	The optical-digital observation can be performed. The endoscope compatible with the optical-digital observation is required	
		NBI observation	This observation mode uses the narrow-band light
		IR observation	This observation mode uses the infrared light
	Remote contro	The following ancillary equipment can be controlled (specified models only). Portable memory / · Video recorder / · Video printer / · Image filing system	
	Documentation		
	Recording format and number of recording images in internal memory	TIFF: no compression	Approx. 120 images
		JPEG (1/5): Approx. 1/5 compression	Approx. 636 images
		JPEG (1/10): Approx. 1/10 compression	Approx. 1108 images
		These are the numbers of the recording images when both HDTV and SDTV images are recorded. These numbers vary depending on the images.	
	Examination lamp	LED	
	Cooling	Forced-air cooling	
	Illumination	WLI or NBI observation	
	Observation mode	IR observation (when connecting to	
	Automatic brightness adjustment method	LED drive current control	
	Automatic Brightness Adjustment	Automatic exposure	17 steps
		Auto	
		Manual	
	Classification (Medica Electrical Equipment)	Type of protection against electric shock	Class I
		Degree of protection	Depends on applied part. Also refer to applied part (camera

		against electric shock of applied part	head or videoscope).
		Degree of protection against explosion	The video system center should be kept away from flammable gases
3b	**Autoclavable Camera Head**		
	Observation	Pickup system	CMOS image sensor (3×)
		Magnification ratio	Focal length f = 15.9 to 31.3 mm
	NBI Observation Mode*	Available	
	IR Telescopes Observation Mode*	Available	
	Electronic Shutter Function	Available	
	Electronic Zoom Function	Available	
	Cleaning/Disinfection/ Sterilization	Cleaning/disinfection	Immersible in disinfectant solution
		Sterilization	Autoclavable/ETO/Sterrad
	Classification (Electromedical Equipment)	Type of protection against electric shock TYPE BF	
		Degree of protection against explosion The camera head should be kept away	from flammable gases
4	High Resolution Medical Grade LCD Color Monitor 19" (Sony)		
5	Compact, Ergonomic Trolley Ideal for Any Endoscopic Requirement		
6	**COLPOSCOPE**		
	COLPOSCOPE	**Beyond The Colposcope A Multi-Task Gyne-Imaging Center**	
	Specifications		
	Operating Enviornment	Air Temperature	10 – 40°C (50 – 104°F)
		Humidity	30 – 85 %
		Air Pressure	700 – 1060 hPa (0.7 – 1.1 kg/cm2, 10.2 – 15.4 psia)
	Size	Dimensions	600 mm dia. (Pedestal Base) x 1400 mm (Overall Height)
	Eyepiece	Magnification	10X
		Field Number	22
		Diopter Adjustment	–5 – +5 m-1
	Zooming	Drive System	Manual drive by knob rotation
		Zoom Ratio	1.06
	Focusing	Focus System	Adjustable focal length
		Drive System	Manual drive by knob rotation
		Focus Adjustment Range	220 – 350 mm
	Illumination	System	Light guide
		Filter	Detachable green filter
	Magnifications		WD220: 3.7 – 23.4X WD300: 3.0 – 18.8X WD350: 2.7 – 16.9X
	Field Of View		WD220: 58.5 – 9.3 mm WD300: 73.1 – 11.6 mm WD350: 82.4 – 13.1 mm

	Floorstand	Support System	Floorstand
		Balancing System	Pantographic arm balancing using spring
		Balance Adjustment Range	4.0 – 7.0 kg
		Balance Adjustmen	Handle adjusted
		Binocular Tube Tilt	10 degrees upward and 30 degrees downward
		relative to the horizontal observation optical axis	
		Vertical Arm Movement Range	300 mm
		Arm Rotation Range	270°
	Photography/	TV Camera	Connectable using a TV camera adapter (optional)
	Cinematography	Digital Camera	Connectable using a digital camera adapter (optional)
	STANDARD SET OF ACCESSORIES		
	Zoom Microscope Body	Zoom Microscope Body	
	Balance Arm	Balance Arm	
	Horizontal Arm	Horizontal Arm	
	Stand	Stand	
	Floorstand Base	Floorstand Base	
	Small Tray	Small Tray	
	Light Guide	Light Guide	
	Halogen Light Source 150W	Halogen Light Source 150W	
7a	**Video System**		
		Acompact and well-balanced high-resolution video	
		system with high compatibility	
	Power Supply	Voltage	100 to 240v AC
		Frequency	50/60 Hz: within Hz
		Dimensions (WxHxD)	295x69x376mm 312x80x410mm at maximum
	Size	Weight	4.9kg
	Classification (meical electrical equipment)		TYPE BF applied part Where no classification mark appears, the device is a TYPE BF applied part
		Dagree of Protection against electric shock of applied part	
	Observation	Analog signal output	VBS Composite 2. Y/C 1 (NTSC for 100 to 240 V models VBS Composite 2. Y/C 1 (PAL for 100 to 240 V models
		Digital output	DVI 1
		White Balance Adjustment	White balance adjustable is possible using the white balance button the front panel
		Standard color chart output	When the camera head is disconnected, a color bar chart can be display
		Brightness adjustable	Brightness can be adjuctable two modes (HI or LO)
8	**LED Light Source**		
		Powerful Illumination with Advanced LED Technology	

		* Higher brightness compared to conventional halogen light sources. * Constant light intensity over lifetime * Low maintenance costs: No bulb changes required for at least 2,000 hours of operation.
9	* Computer Recording System for Digital Documentation * CPU, LCD Monitor,Color Laser Printer, Key baord, Mouse, Capture Card for still and moving imaging.	
10	Local Video Trolley with anticastor and keyboard drawer	
	LAPAROSCOPE	
11	**SET OF HAND INSTRUMENTS FOR LAPAROSCOPIC SURGERY**	
	Telescope, 10 mm, 0°, HD, quick lock, autoclavable	
	Light guide, Cable,Plug type 3cmm CF Type	
	Trocar tube, 11mm	
	Trocar spike, 11mm	
	Trocar tube, 5 5 x 80 mm, with stopcock	
	Trocar spike, 5.5 x 80 mm, triangular	
	Reduction tube, 10-5 mm, insulated	
	Needle, acc. to Veress, 150 mm	
	Rotatable Grasping forceps, 5 x 330 mm,	
	Rotatable Grasping forceps, 5 x 330 mm, fine tooth,	
	Rotatable Grasping forceps, 5 x 330 mm, Johann, single action,	
	Rotatable Dissection forceps, 5 x 330 mm, Maryland,	
	Rotatable Grasping forceps, 5 x 330 mm, claw type,	
	Rotatable Grasping forceps,5 x 330 mm, DeBakey,	
	Rotatable Grasping forceps, 10 x 330 mm, wave type,	
	Rotatable Biopsy forceps, 5 x 330 mm, severing,	
	Hook scissors,5 x 330 mm, Ergo	
	HF-electrode, hook, with suction channel, 5 x 330 mm	
	HF-cable, monopolar, 3 5 m,	
	Valleylab (new) HF-unit to 3 mm pin surgical instrument	
	HF-cable "HiQ+", bipolar, 3.5 mm	
	Handle, for suction/irrigation tube	
	Suction/irrigation tube, 5 mm,	
	Reusable tubing set, for 2 bags,	
	Spare cannula,	
	Needle, for fascial closure	
	Clip applicator, 10 x 330 mm, for clips medium/large	

	Rotatable Scissors, 5 x 330 mm, Metzenbaum, Ergo		
	Johan Bipolar Forceps 5X 330 mm		
	Hirsch Bipolar Forceps 5X 330 mm		
12	**Automatic Smoke Evacuation**		
	An automatic smoke evacuation feature is enabled on the when it is coupled with a new or existing energy platfrom		
	This will help provide a clear and unobstructed view of the surgical filed during laparoscopic procedures		
	Adjustable Smoke Evacuation		
	In order to reduce the amount of CO2 used during surgery, the allows for the smoke evacuation to be independently		
	set on the fornt panel of the unit. The Smoke evacuation can be toggled between a High and Low function.		
	Specifications.		
	Abdominal Pressure Control	3 to 25 mmHg	
	Flow Rate Setting	45L/min	
	Cavity Mode	Normal Small	
	Gas Supply From Wall Pipeline	Connectable	
	Alarm	OverPressure of obdominal cavity/Tube	
		clogging/Insufficient supply of gas	
	Smoke Evacuation Function	Electronic Co2 insufflator with smoke Evacuation facility	
13a	**Video System Center**		
	Rated voltage	100–240 V AC, within ±10%	
	Power Supply		
	Rated frequency	50/60 Hz, within ±1 Hz	
	Rated input	400 VA	
	Size		
	Dimensions (maximum)	383 (W) × 199 (H) × 506 (D) mm	
	Weight	19.3 kg	
	Observation		
	Analog signal output	VBS composite and Y/C, simultaneous outputs possible	
	Digital signal output	HD-SDI (SMPTE292M), DVI (WUXGA,1080 pixels, or SXGA can be selected)	
	Electronic zoom	The image enlargement level can be selected. 3 modes (1.0×, 1.2×, 1.5×)	
		The optical-digital observation can be performed. The endoscope compatible	
		with the optical-digital observation is required	
	Optical-digita observation	NBI observation	This observation mode uses the narrow-band light.
		IR observation	This observation mode uses the infrared light
	Remote contro	The following ancillary equipment can be controlled (specified models only).	
		Portable memory / · Video recorder / · Video printer / · Image filing system	
	Documentation	TIFF: no compression	

	Recording format and number of recording images in internal memory	JPEG (1/5): Approx. 1/5 compression JPEG (1/10): Approx. 1/10 compression These are the numbers of the recording images when both HDTV and SDTV images are recorded. These numbers vary depending on the images.	
	Examination lamp	LED Light	
	Cooling	Forced-air cooling	
	Illumination	WLI or NBI observation	
	Observation mode	IR observation (when connecting to	
	Automatic brightness adjustment method	LED drive current control	
	Automatic Brightness Adjustment	Automatic exposure Auto Manual	17 steps
	Classification (Medica Electrical Equipment)	Type of protection against electric shock Degree of protection against electric shock of applied part Degree of protection against explosion	Class I Depends on applied part. Also refer to applied part (camera head or videoscope). The video system center should be kept away from flammable gases
13b	**Autoclavable Camera Head**		
	Observation	Pickup system Magnification ratio	CMOS image sensor (3") Focal length f = 15.9 to 31.3 mm
	NBI Observation Mode*	Available	
	IR Telescopes Observation Mode*	Available	
	Electronic Shutter Function	Available	
	Electronic Zoom Function	Available	
	Cleaning/Disinfection/ Sterilization	Cleaning/disinfection Sterilization	Immersible in disinfectant solution Autoclavable/EtO/Sterrad
	Classification (Electromedical Equipment)	Type of protection against electric shock TYPE BF Degree of protection against explosion The camera head should be kept away	from flammable gases
14	High Resolution Medical Grade LCD Color Monitor 24" (Sony)		
	Type	a-Si TFT Active Matrix	
	Pixel efficiency	99.99%	
	Viewing angle (up/down/left/right,controls	89/89/89/89 (typical)	
	Scan	Normal 0%Over Scan 20%	
	Effective picture size	518.4 x 324.0613.2 mm (wh, dia)(20 1/2 x 12 7/8 24 1/4 inches	
	Resolutions	H.1920 dots V1,200 lines	
	Aspect ratio	16:1	
	Input		

Composite	(NISC/PAL)connector.BNC (1). Vp-p ±3 dB sync negative
Y/C	Mini DIN 4-pin (x1) Y: 1.0 Vp-p ±3 dB sync negative. C: 0.286 Vp-p ±3 dB (NTSC burst signal level) 0.3 Vp-p ±3 dB (PAL burst signal level)
RGB, Component	BNC (x3) RGB Input: 0.7 Vp-p ±3 dB (Sync On Green, 0.3 Vp-p sync negative) Component Input: 0.7 Vp-p (75%Chominance standard color bat signal
External sync	BNC (x1) 0.3 Vp-p to 4.0 Vp-p ±bipolarity ternary or negative polarity binary
Connector	
HDI 5 Input Connector	D-sub 15-pin (1) R/G/B input 0.7 Vp-p sync positive (Sync On Green 0.3 Vp-p sync negative) Sync: TTL level (polarity free H/V separade sync) Plug & Play fuction: corresponds to DDC2B
DVI Input	DVI-D (1)
Remote	Parallel remote
OutPut	
Composite	BNC (x1), loop-through, with 75 ohms automatic terminal fuction
Y/C	Mini DIN 4-pin (x1), loop-through, with 75 ohms automatic terminal fuction
RGB, Component	BNC (x3), loop-through, with 75 ohms automatic terminal fuction
External sync	BNC (x1), loop-through, with 75 ohms automatic terminal fuction
General	
Power requirements	DC IN: 24 V 3.5 A 5 V 0.030 A (Supplied from AC adoptor AC IN: 100V TO 240 V 50 Hz/60 Hz 1.53 A-0.58 A DC OUT: 24 V 5.0 A 5 V 0.060 A
Operating temperature	0°C to 35°C (32°F to 95°F)
Recommended temperature	: 20°C to 30°C (68°F to 86°F)
Humidity	30% to 85%
Storage and transport temperature	-20°C to +60°C (-4°F to +140°F)
Storage and transport humidity	0% to 90%
Storage and transport pressure	700 hPa to 1060 hPa
Supplied accessories	AC power cord (1), AC plug holder(AC-100MD) (1) (AC Power cord) (1) AC Plug holder(2) Instructions for Use (1) CD-ROM (1) Usmg CD-ROM Manual (1) Quick Reference (1)

15	Local Video Trolley with anticastor and keyboard drawer

ITEM NO. 13

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PATIENT MONITORS	QTY	10

- **DISPLAY**
- 12.1" Color TFT-LCD TOUCH SCREEN OR MORE
- Resolution 800 X 600 pixels or higher

- **POWER SUPPLY**
- Power Voltage AC 100-240V 50/60Hz
- Power Imput ≤ 85VA
- Fuse: T1.6AL/250V, Φ5X20 (mm)
- Safety class: Category I
- **BATTERY**
- Type: rechargeable Sealed LITHIUM, 12V/2.0AH
- Charge time: ≤ 10 hours (2 batteries for 20 hours)
- Operating time under normal use and full charge:
- ≥ 60 minutes (2 batteries for 120 minutes)
- Operating time after the first alarm if low battery: 5-15 minutes
- **THERMAL RECORD (OPTION)**
- Method: thermal dot array
- Paper width: 50mm (1.97 in)
- Paper Speed: 12.5/25/50 (mm/sec)
- Traces Maximum: 3 tracks
- **SYSTEM OUTPUT**
- Ethernet Network standard RJ45 socket
- RF Wireless LAN: 433MHz, 10mW (option)
- Defibrillation Output: Option
- Video Output: Option
- **ALARM**
- Three Level: Low, medium and high
- Indication: Auditory and visual
- Setup: Default and custom
- Silence: All alarms can be silenced
- Volume: 45~85 dB measured at 1 meter
- **TREND**
- Store & review 168 hours trend data and trend maps
- Parameter option: HR, SpO2, NIBP, PR, Resp, CO2, Temp1,

- Temp2, AA, N2O, O2, IBP1, IBP2, ST.
- Cycle intervals of trend storage 1min, 2min, 3min, 4min, 5min,
- 10min, 15min, 20min, 25min, 30min.

- **STORE & REVIEWING**
- ECG: 30 minutes one important lead's ECG waveform
- Alarm: 1800 groups Alarm events reviewing
- NIBP: 1000 groups NIBP measurement
- Arrhythmia: 128 groups data (8 seconds ECG waveform)
- **ENVIRONMENT**
- Working temperature: 0~+40°C
- Transportation and storage temperature: 20~+55°C
- Relative humidity: Working ≤ 85% Transportation and storage ≤93%
- Atmospheric pressure: Working 860~1060 hPa
- Transportation and storage 500~1060 hPa

- **STANDARD CONFIGURATION:**
- ECG, HR, RESP, NIBP, SpO2, PR, TEMP, Battery Lead-acid

- **OPTION:**
- Litium battery, 2-TEMP, 2-IBP, Recorder, EtCO2 (side stream, main stream),
- Anesthetic Gas, Nellcor SpO2, ICG
- **ECG**
- Mode: 5-leads (standard); 3-leads
- Lead selection: I, II, III, aVR, aVL, aVF, V1~V6 (option)
- Gain: AUTO, 0.25x, 0.5x, 1.0x, 2.0x, 4.0x
- Insulation Breakdown Voltage 4000VAC 50/60Hz
- Sweep speed 12.5mm/s, 25mm/s, 50mm/s
- HR Range: 10~300 bpm
- HR Accuracy ± 1% or ± 1 bpm, whichever is greater
- **ST SEGMENT**
- Measurement Range – 2.0mV~2.0mV
- Resolution 0.01mV
- **RESP**
- Method: Impedance variation between RA-LL (R-F)
- Measurement Range: 0~150 rpm
- Accuracy: ±2 rpm
- Gain: x1, x2, x4
- Sweep speed 6.25mm/s, 12.5mm/s, 25mm/s
- **TEMP**
- Measurement Range: 25.0~50.0°C
- Unit: Celsius (°C), Fahrenheit (°F)
- Accuracy: ±0.1°C (exclusive of probe)

- Connecting cable: Compatible with YSI-400
- **SpO2**
- Measurement Range 0~100%
- Accuracy 70~100%, ±2%
- 0~69%, unspecified
- PR Range 25~250 bpm
- PR Accuracy ±1% or ±1 bpm, whichever is greater
- **NIBP**
- Technique: Automatic oscillometry
- Range: Adult: 10~270 mmHg
- Child: 10~235 mmHg
- Neonate: 10~135 mmHg
- Accuracy: Static ±2% or ±3 mmHg, whichever is greater
- Unit: mmHg, kPa
- Pulse rate range: 40~240 bpm
- Intervals for AUTO measurement: 1,2,3,4,5,10,15,20,30,60,90
- minutes 2,4,8 hours
- **IBP (OPTION)**
- Channel: 2
- Measurement Range: -50~ +300 mmHg
- Unit: mmHg, kPa
- Accuracy: ±2mmHg or 2%, whichever is greater
- **EtCO2 (OPTION, Sidestream, LoFlo)**
- Range 0~19.7% (0 ~ 150 mmHg)
- Unit: %, mmHg, kPa
- Respiration Rate Range 2~150 bpm

- **SIZE AND WEIGHT**
- Size 318mm X 264mm X 152mm
- Weight 4.5kg

OR EQUIVALENT

ISO AND FDA/CE/JIS APPROVED
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ITEM NO. 14

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	ETT MACHINE	Qty	01
STRESS System Windows® based • Automatic control of treadmill and ergometers • Leads view in 3, 4, 6 or 12 leads screen formats			

• Storage of all data in the hard drive, allowing access to the original test results at any time for future review or printing
• Arrhythmia detection
• Calculation of average ECG complexes on regular intervals and their superimposition on a reference ECG complex, which highlights ST changes in details
• ST measurements on 12 leads
• Adjustable ST measurement point
• ST, STj, STj+60, STj+80, Heart Rate, Mets, Pressure and ST/HR trends
• Heart frequency dependent ST measurement and analysis
• Automatic storage of rhythm strips at steps changing or manually throughout the test
• Alarms: ST alarm on 12 leads, Heart Rate, pressure and double product
• On line 12 channels average heart cycle configuration
• Blood Pressure entrance and display of trend
• External module for automatic NIBP measurement (optional)
• Preprogrammed protocols, included Bruce, Modified Bruce, Balke, Ellestad
• Modify or add unlimited customized protocols for treadmill or pharmacological stress test reports and print out
• Print out format in 12 leads, 6+6 leads, and 6+6 leads+AVG including average, trend graphs, tabular reports and overview, using A4 color laser printer
• Review full report online immediately after completing the test
• Real time ECG print-out
• Set up analysis, protocols, printing format and final report customizable
• Digital filters LP, HP, antidrift and notch of high quality for the careful recording without artefacts
• Transmission of traces and reports by email or network sharing
• Direct PDF printing for report storage and viewing
• Email ECG results directly from the PC system
• Automatic calculation of Harvard Step Test

MyECG Amplifier

MyECG Amplifier module is a lightweight, portable device that connects your PC to your patient.

Version:

• SMART ECG (USB)

- Isolated preamplifier in accordance with CEI 62-5 (IEC 601-1) and CEI 62-15 (IEC 62D)
- Input impedance > 50 Mohms
- Defibrillator protection
- 12 leads acquisition with 512 sampling rate.
- CMRR > 100 dB
- Frequency 0.05 - 150 Hz
- Standard patient cable with 10 wires.

- Powered by USB port
- Dimensions: 144x94x20 mm.
- Weight: 150 gr
- SMART ECG Plus (Bluetooth)
- Safety Standard in accordance with IEC II/CF
- Input impedance > 50 Mohms
- Defibrillator protection
- 12 leads acquisition with 512 sampling rate.
- CMRR > 100 dB
- Standard patient cable with 10 wires.
- 10m Bluetooth distance
- Powered by 2* AAA battery
- Dimensions: 126mm×68mm×24mm
- Weight: 120 gr

Minimum PC

- Operation system: Windows XP
- CPU: Pentium IV
- RAM: 1 GB
- HDD: 500 GB
- Interface: USB port free

OR EQUIVALENT

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ITEM NO. 15

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	CTG MACHINE	Qty	05

FETAL PARAMETERS

Range	30-240 bpm
Accuracy	<+/- 1bpm
Mode	Pulsed Doppler
Display	FHR values
	Pulse indicator
	Confidence indicator
	Line graph
Print	Line graph
Repetition rate	2.994khz
Frequency	1.0mhz
Pressure	<330kpa

Lob	<1mW/cm^3
ISPTA	<3mW/cm^2
Resolution	16 bits
Safety	Type b protection
Watertight	IPX7 rating

DIRECTOR FETAL ECG

Range	30-240 bpm
Accuracy	<+/- 2bpm
Notch filter	Auto set to 50Hz or 60hz
Display	FHR values
Pulse indicator	
	Confidence indicator
	Line graph
Print	Line graph
Notch filter	50Hz or 60Hz
Input impedance	10M Ohm
Input range	3µV - 5µV peak to peak
DC offset	+/- 2mV common mode
	+/- 300mV Different
Common mode range	+/- 2mV Main frequency
Noice	<10µV peak to peak referred to input
Safety	Type cf protection

ALARM & ALERTS

High heart rate
Low heart rate
Signal loss
Dual rate detection
Poor ECG connection (high impedance)

FETAL MOVEMENT

Recorded with either the maternally sensed event marker, or automatically using actogram.

This records the fetal limb and trunk movements by detecting low frequency Doppler signals through the 1.0MHz ultrasound transducer

EXTERNAL UTERINE ACTIVITY (TOCO)

Range	-100 relative units
Sensitivity	100% FSD equivalent to 125g
offset range	0-*375g
Baseline	Manual and auto zero facility to 0.10 or 20%
Display	TOCO values

	line graph
Print	Line graph
Safety	Type B protection

INTRA-UTERINE ACTIVITY (IUP)

Transducers INTRANplus (or equivalent pre-calibrated transducer)
PRESSURE RANGE 0-100MM Hg/1-13.3kPa (user selectable)
Sensitivity 1 mmHg
Accuracy +/- 5%

Display	IUP values
Line graph	
Print Line graph	
Safety typeCF protection	

MATERNAL VITAL SIGNS

Heart rate & ECG	
Range	30-240 bpm
Accuracy	<+/- 2bpm
Display	HR Values
Print	Line graph

DISPLAY

Hardware

Technology	Full colourtft liquid crystal display
Size	8.4in diagonal 4:3 aspect ratio
Resolution	SVGA , 800 X 600
Viewing angle	Better than 160°

CONTROLS

Touch screen

Apart from the power on / off touch sensitive button. All of the control of the sonicaid team 3 is through the integrated touch screen. This presents buttons, touch areas, dialogues and keypads for entering data and selecting the required configuration of the fetal monitor.
Feedback is accomplished through an audio tick which can be turned off if required.

BATTERY

Capacity	4400mAh
Use	4 hours without printing and reduced display
brightness	
Charging time	Approx..4 hours

ENVIRONMENTAL	
Operating temp	+10°C - +35°C (50°F – 96°F)
Storage temp	-20°C - +60°C (-4°F – 140°F)
Storage pressure	68 to 106 kPa (680 to 1060mB)
Relative humidity	10 -90 % non-condensing
PHYSICAL	
Height 23.4 cm (9.2 in0 with printer	18.6 cm (7.3) without printer
Width	32.0 cm (12.6 in)
Length	23.0 cm (9.0 in)
Weight	6 kg (13.5 lbs) Max

OR EQUIVALENT

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ITEM NO. 16

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	VITAL SIGN MONITOR	Qty	10

TECHNICAL SPECIFICATION	
Size	125x299x130mm
Weight	1.25kg
Display type / size	LED 100 x 120mm
Power voltage	100 -240VAC
Power frequency	50/60 Hz
Input current	0.15-.03A
Battery type / capacity	lithium ion, 11.1V, 2200 mAh
Thermometer battery type/ capacity	LR03 (AAA x 2) 1.5 VDC
Patient groups	Adult, Paediatric& Neonate
NiBP	Oscillometric
SpO_2	0% to 100%, 1% resolution
Temperature (option)	Tympanic, 34°C to 42.2°C (93.2°F to 107.6°F)

OR EQUIVALENT
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USA/JAPAN/UK

ITEM NO. 17

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	PROTECTED ENVIRONMENT TRANSPORT CHAMBER	Qty	03

Technical date

Battery autonomy	h	4
Positive pressure		yes
Positive pressure at ground level	Pa	(+)60
Negative pressure		yes
Negative pressure at ground level	Pa	(+)50
Intake filtration		H14
Output filtration		H14
Air renewal rate	vol/h	99.995%
Electrical connections		12 V DC 110-230 V AC 50-60 Hz
External dimensions	W x D x H,	2150 x 650 x 650
Internal dimensions	W x D x H mm	2000 x 600
Weight	KG	40
Panoramic glass		yes
Double body with inside rounded angles		yes
Harness to maintain the patient		yes
Manipulation gloves		6
Sealed port for medical appliance connections		1 that is 6 connections
Maternal input hose		No
Waste output hose		No
Control board with LCD screen		yes
On board monitoring		no

OPTIONS

- 3 point lifting trolley according to regulation EN 1789 and 1865
- Ambulance / airplane fixation systems

OR EQUIVALENT

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ITEM NO. 18

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	DIATHERMY MACHINE	Qty	06

Output of 400 to 500w in continuous mode and 800 to 1100 w in pulse mode pulse repetition frequency of 20 to 200 Hz adjustable in 10 steps LCD Screen display of parameter Treatment timer with all standard accessories condenser pad with cable Dis electrodes with arms and cables. Patient safety switch

4.

System configuration Accessories spares and consumables

As specified

5.

Environmental factors

5.1 Enviromental factors to be complied

1. Shall meet IEC-606-1-1-:2001 (or Equivalent BIS) General Requirements of safety for Electromagnetic compatibility or should comply with 89/366 EEC, EMCdi
2. The unit shall be can able of being stored continuously in ambient temperature of 0-50 deg C and relative humidity of 15-90%
3. The unit shall be capable of operating continuously in ambient temperature of 10-40 deg C and relative humidity of 15-90%

6.

Power Supply

6.1 1. Power input to be 220-240 VAC, 50Hz fitted with Indian Plug

2. UPS of suitable rating with voltage regulation and spike protection for

OR EQUIVALENT

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ITEM NO. 19

TECHNICAL SPECIFICATIONS			
RECOMMENDED MINIMUM TECHNICAL SPECIFICATIONS			
	BED SIDE PATIENT MONITOR	Qty	15

- **DISPLAY**
- 12.1" Color TFT-LCD TOUCH SCREEN OR MORE
- Resolution 800 X 600 pixels or higher

- **POWER SUPPLY**
- Power Voltage AC 100-240V 50/60Hz
- Power Imput ≤ 85VA
- Fuse: T1.6AL/250V, Φ5X20 (mm)
- Safety class: Category I