

# MEHRAN UNIVERSITY OF ENGINEERING & TECHNOLOGY, SHAHEED Z.A. BHUTTO CAMPUS, KHAIRPUR MIR'S

# **BID DOCUMENT**

**FOR** 

Establishment of Voice & Data Network,

Establishment of Data Centre & PC Labs and

Establishment of Video Conference
on Turnkey basis.

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Bidders are advised to read the Contents of the Instruction to Bidders (ITB) Carefully

# Invitation for Bids

# MEHRAN UNIVERSITY OF ENGINEERING & TECHNOLOGY, SHAHEED Z.A. BHUTTO CAMPUS, KHAIRPUR MIR'S

Nit Ref No:

₹

.

# NOTICE INVITING BIDS / TENDERS

Date: Feb

2015

1) Mehran University of Engineering & Technology Shaheed Z. A. Bhutto Campus, invites sealed bids from interested firms who are experienced and capable for Expansion of existing Voice & Data Network, Establishment of Data Centre, PC Labs and Video Conference facility on turnkey basis. The work is to be completed within 15 weeks from the date of award of contract. The proposals are invited under SPPRA Rules for the works as mentioned bellow.

S#	Description	Bill of Quantities & Drawings	Last date of Purchase of Bids	Date & Time of Submission and Opening of Bids	Bidding Document Purchase Price	Earnest Money / Bid Security
1,	Expansion of existing Voice & Data Network, Establishment of Data Centre, PC Labs and Video Conference facility	Mentioned in	Bids can be purchased from the date of publication of Tender till 5 <sup>th</sup> March-2015 during office working hours	2015 at 12.00 Noor and same will be	Rs. 3000	2% of Bid Cost

- 2) A complete set of Bidding documents may be purchased by the interested eligible bidders on submission of a written application to Project Director MUET, Z.A. Bhutto Campus Khairpur Mir's along with Tender Fee Rs. 3,000.00 (Rupees three Thousand only) on any working day from 10:00 am to 02:00 pm from the date of publication of this tender till 05<sup>th</sup> March-2015 Or same can be downloaded from the website of SPPRA as well as from the website of MUET Z.A. Bhutto Campus. Bidders who intend to download Bid Documents from websites can send their application along with Tender Fee (in shape of Pay Order) through Courier which shall be received three days prior to the date of opening of Bids (if such applications are not received their Bids will not be accepted / allowed / entertained to participate). Such application should ready to the Project Director, MUET, Z. A. Bhutto Campus, Khairpur Mir's.
- 3) A pre-bidding meeting will be held with the bidders on 2nd March-2015 at 2.00pm in the office of Pro-Vice Chancellor MUET, Z.A. Bhutto Campus Khairpur Mir's for clarifications regarding TORs and BOQ and or anything else related to Bidding process or Specifications.
- 4) All bids must be accompanied by a Bid Security equal to 2% of their Financial Proposals. Bids without Earnest Money will not be entertained. Earnest Money should be valid 28 days after validity of Bid.
- 5) Bids must be dropped in the tender box kept in the office of Project Director, MUET, SZAB Campus Khairpur Mir's on 6th March-2015 at 12.00 noon. On same day the bids will be opened at 12.30 Noon in presence of representative of Bidders who choose to attend and the members of procurement committee.
- 6) Conditional Bids, submitted through Fax, email, telegraph, not accompanied with bid security, Bids received after the specified date and time and the Bids submitted by the blacklisted firms will be rejected.
- 7) Muet Z.A. Bhutto Campus Khairpur Mir's reserves the right to reject all or any bid(s) subject to the relevant provisions of Sindh Public Procurement Rules 2010 as amended in 2013

PROJECT DIRECTOR



# DAWN SATURDAY FEBRUARY 14:2015



# Mehran University of Engineering & Technology, Shaheed Zulfiqar Ali Bhutto Campus, Khairpur Mir's

#### INVITING BIDS/

Mehrs n University of Engineering & Technology Shaheed Z.A. Bhutto Campus, Invites sealed bids from inte firms who are experienced and espeble for expansion of existing Voice & Data Network, Establishment of Data Centre, PC Labs and Video Conference facility on turnkey basis. The work is to be completed within 15 weeks from the data of award of contract. The proposals are invited under SPPRA Bulgs for the works as mentioned below:

Sin	Ocs. ription	Balof Ountities & Orawhers	United it is not the second of	Date & Lieron C Anderson and and On hing of Defi	Budden, Or antent Publisher Trees	
	Expansion of existing Voice & Cate Network, Establishment of Data Centre, PC Labs and Ideo Conference facility	in Bidding Documents	purchased from the date of publication of Tender till March 06, 2015 during office working hours	Seeled Bids should be a dropped in the Tender Box on Merch 06, 2015 at 12:00pm and same will be opened in presence of Bidders at 12:30pm in the Committee Room		2% of Bld Cost

- Terms & Zanditions

  1. A complete set of Bidding Documents may be purchased by the interested eligible bidders on subgission of a written application to Project Director MUET, Z.A. Bhutto Campus Khairput Mir's along with Tender Fee Ref. 2.000,004. (Ru see: Three Thousand only) on any working days from 10:00am to 02:00pm from the date of publication of this ten left till Feb 28, 2015 or same can be downloaded from the websits of SPRA as well as from the websits as MUET, Jamehoro. Bidders who intend to download Bid Documents from varieties can send their applications along with Tender Fee. (In shape of Pay Order) through Courier which shall be received there days prior to the date of opening of Bids (if such applications are not received their Bids will not be accepted theirs days prior to the date of opening of Bids (if such applications are not received their Bids will not be accepted theirs days prior to the date of opening of Bids (if such applications are not received their Bids will not be accepted theirs days prior to the date of opening of Bids (if such applications are not received their Bids will not be accepted theirs days prior to the date of opening of Bids (if such applications are not received their Bids will not be accepted theirs days of the participates). Such application should reach to the Project Director, MUET, Z.A. Shutto Campus Khairpur Mir's for clarifications regarding ToRs and BOQ and or anything also related to Eidding process or Specifications.

- MUET, Z.A. Bhutto Campus Anairpur hir a for Garriecescree registering to Eidding process or Specifications.

  3. All pids must be abcompanied by a Bid Security equal to 2% of their E Money with not be entertained. Earnest Money should be valid 28 days at 4. Bid: must be dropped in the tender box kept in the office of Project Discontinuation of Eidders who dibose to attend and the members of procurement of Eidders who dibose to attend and the members of procurement of the programment of Eidders who dibose to attend and the members of procurement of the programment of Eidders who dibose to attend and the members of procurement of the programment of the p
- 5. Cor ditional Bids: Mibmitted through fex; email, telegraph, not accord
- the specified date and time and the Bids submitted by the blacklisted firms. MU 37, Shaheed Z.A. Shuno Campus Khairpur Mir's reserves the right to re provisions of Sindh Public Procurement Rules 2010 as amended in 2013.

#### PROJECT DIRECTOR

MUET, Sheheed Z.A Bhutto Campus Kheirpur Mir's





# مېران يونيورستى آف انجينئرنگ اين د دوالفقار على به توکيمپس، فير پورميرس شېيد دوالفقار على به توکيمپس، فير پورميرس

مران يو ندرځ آف البيتر محدايذ ميداو داندتاد يلي موکيس کو الجي ريخه والى فرمز سه موجو ده واکس ايند ويک کي تو سخه و يا ميدو کي الميداد د که کي تو ميداد د د که کي تو ميداد د د که کي تو ميداد کي ميداد د د که کي تاريخ العربي في أوقر وين أولز مستخيط مطلوب جن-

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الدين والدين والدين المراكز المراكز الدين ا الراكز الدين ا	برل د شاویز کی خرید امرک کی قیمت	اد بال الله كا كرواب اور تُعلِيّ كي تاريخ وقت 	يرى باقىلايىلاق قى 1 قرق بارىخ	آنوه تلميز اور ازرا کهن کالل	النيس النيس	غيرها
8-2% 2%	3000/- ←»	مُنِيَةُ رَبِيسِ عِن لازماءُ الروى جا مِن مُسِينَ أَي روز	بولواں شینڈ رکی اشامت ہے 45، رکی 2015 ہے دفتر کی ادہ سے کار کے دروان مام کس کی جاسکتی ہیں	رين ہے	مرجود دوائس ایندا دیانیت درک کافوسی الدیاسینز، پی کهداورو یا میکانفرنسیسیل ک قیام	01

- . ولي ركندوا له الله يول و بزيك ان بالدين الدين المست 3000 ( ثن بزار كروب نيز رفيل ك براوقويل درفواست بنام يوديك والاكرام الدين في برخ آف الجينز محك الدين الدين ويكون والمواسلة على المواسلة ا انی لی فی آراسے کی دیب سامنے سے ساتھ ساتھ مران میشوری آف انجیئر تک ایڈ میکالوی ، جاسٹور د کی دیب سائٹ ہے بھی ڈاؤن لوڈ کیا جاسٹل ہے۔ دوبو کی دہندگان جو بولی دستادیزات وبسياس سيدادك بالأكري المادور يحت وورود في ووائل وفوائل ويند في (الفل بيارون ) كدارون ويكرون مي المراكز كية بين جروي اليل محليظ كالمرود في المراكز المسل المراكز المنظم (اگرورغ اسمى ومول تين بوكي ان كى يولان قد لِي أشال بين كى مان بركرك كيلة قورتين كا بات كا) درغواش برد بيك دار كيز ميران يونه رخي آف البيئر كله ايذ ميكا لوي ب شبید ذو والفقار طی بهتو کمیس، خیر پورمبرس کے نام بونی جا بیس -
- 2. بول دين كان كرماتي بول سيركي بليك اجل 102 مل 105 كل دير 02:00 بيني بدواك جالس 2015 كل يوبري سكراتم على المربي التاريخ المنازع المنا BOQINTROs ادر ایم ل محفل معتملق می اور جزیاتسیل کووشاحت كيليد عمد منعقد وا-
- 3. تمام ياليان كمرادان كافل يرد يوزار كر 24 كر بالدي ل هانت شك يوني باليريان المرايان يون كورائل كيامات كالمددر بعات يون باليام المرايان كالمددر بعات يون بالمرايان كالمرادان كالمرادان كالمرادان كالمرابع المرايان كالمرادان كالمرابع المرايان كالمرابع المرابع المرا 4. بدليان بروجيك دائر يكتر موران يوغير كل اين جيدا والعقار في بنويسيس. في يوريرس كدفتر عن موجود نيذر بكن عن 2016 و2015 وادوي 12:00 بيك دال وي جے آئ ون دو پر 30: 12 بج كتر كتر او بال موجود عند كوابشند ناكدول كى موجود كى يكن كودا مات كا-
- مشروط آبکس، ای شمل، کما کروف کرد رید فی مح کردائی جائے والی دافیرز و پیعاندہ الی مقرّرہ تاریخ کار جائے کے بعد وصول ہونے والی اور جلک بعد فرموکی جانب سے جع کروائی جائے والی جالیاں مستر د کردی جائیں گا۔
- 6. مدان وغدر آف البيتر كان وغد تيك وي ويدون التدري التوكيس، فير يديري كان ماصل ب كرده كالكيات بالدن وكوسند يلك بدوكودسند والدر 2010 مل 2013 وعد تركيك پروجيڪٽ ڏائريڪٽر متعلقه و فعال كم مطابق مستر وكرد ،

مران يوغوري أف الجيئر كل ايذ تكالوى الهيدووالفقاري بينوكسيس الحريوري

غولى يم 14: 0243-9280314 <u>يوني يم 14</u>3-9280314





# مهراط يونيورسٽي آف انجنيئرنگ اينڊ ٽيڪنالوجي,

مهران بونيورستي آف الجنيئرنگ ايند تيڪنالرجي. شهيد نوآلنقار علي ڀتو ڪبيهس کي طبيسيي رکڻ واري فرمز کان مرجوده وائس ايند ديڪا نيت ررڪ جي توسيع. دينا سينتن بي سي ليبز ۽ ويڊير ڪانفرنس فيسلتي جي قيام لاءِ ترن جي بنياد تي مهريند پوليون گهريل آهن فرمز جو تجربي ڪار ۽ معي چافايل آمور جي قابل هجڻ ضروري آھي۔ ڪر ڪندريڪت حاصل ڪرڻ جي داريخ کان 15 هندن جي اندر مڪمل ٿي رجي. هيٺ ڄاڻايل امرر جا پرويوزلز ايس بي بي آر آي رواز جي دحت گهريل آهن

سونی رفع برنی فنسش	يولي دستاوس جي حويداري جي فينت	پوليون جمع ڪرائن ۽ کلن جي باريخ ۽ وقت	يونين جي حريداري جي اجري مارج	جوانتشيز ۽ دراڻنگر جو يل	تقسي	نسارو نسارو نسبر
بولي لاڳت جـ 2%	-/3000 بينا	مهربند بوليون 06 مارچ 2015 تي منجهند 12 وڳي تينڊر باڪس ۾ لازمي وڏيرن وڃن جن کي ان ڏينهن بولي ڏيندان جي موجودگي ۾ منجهند 12:30 وڳي تي ڪاميني روم ۾ کوليو ويندو	بوليون ٽينڊر جي اشاعت کان 05 مارچ 2015 تائين آئيس رقت دوران حاصل ڪري سگهجڻ ليون	ٻولي دستاريئڻ ۾ درج آهي	مرجودہ وائس ایند ویکا نیت ورک جی ترسیع دیتا سینتی بی سی لیبز ع ویڈیر کانفرنس فیسلتی جر تیار	01

### شرطون ۽ ضابطاً

1. دلجسین رکندل اهل بولی ڈیندل ہولی دستاریزات جر محسل سیت -3000 اثی دڑو)۔ رہیا تینبر فیس سان گذ تحریری درخواست پروجیڪت بائريڪٽر، مهراڻ پرنيورسٽي آب اتجنيئرنگ اينډ تيڪنالوجي، شهيد نوانقار علي يتو ڪيميس خيريور ميرس جي نالي تي هن تيندر جي اشاعت کان 28 فيمريري 2015 نائين ڪنهن بہ ڪر واري ڏينهن صبح 10.00 وڳي کان منجهند 02:00 وڳي تائين جمع ڪرائي حاصل ڪري سگهن تا يا آنهن کي ايس بي بي آر آي جي ويب سائيت سان گڏوگڏ مهراڻ يونيورسٽي آف انجنيشرنگ اينڊ ٽيڪنالرس. چامشورو جي ريپ سائيت تان پر بائون لوڍ ڪري ساڳيجي تن اهي پولي ڏيندڙ جيڪي پولي دستاويز ريپ سائيتس تان بائون لوڍ ڪرڻ جو ارابد رکندا هين اهي پنهنجون درخراستون تينير فيس (بي آرير جي صورت ۾) سان گڏ ڪرريئر قريعي اسان کي موڪلي سگهن ٿا جيڪي يوليون کڏڻ جي تاريخ کان 03 ڏينهن يهريان لازمي وصول ٿي ريخ گهرجن (جيڪندن درخواستون رصول نہ تین تہ آنهن جون بولیون قبول/شامل تہ کیون ویندیون/ آنهن تي شرکت لاء خور نہ ڪیو ویندوا. درخواستون بروجیکت باتریکتر، مهراغ یونیورستي آف انجنیشونگ ایند

تيڪنالرجي. شهيد ٽرائٽار هلي ڀٽر ڪيمپس خيربرد ميرس جي نالي هٿڻ گهرجن 2 ٻولي ڏيندڙن سان ٻولي کان پهريان هڪ ايعلاس 02 مارچ 2015 تي منجهند 2:00 رڳي تي ويوائس جانسلن مهراڻ يونيورستي آف انجنيئرنگ لينڊ ٽيڪنافرجي. شهيد فوانندار علي پنو ڪيمپس خيريور ميرس جي آليس ۾ BOQ e TROs ۽ يا ڀولي جي عمل جي متعلق ڪنهن پئي تئي يا تفصيل جي وضاحت جي سلسلي ۾ متعلد ٿيندو

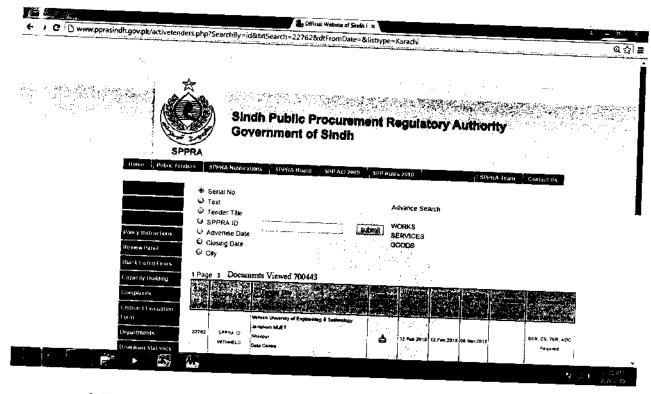
3. سعورين ٻولين سان گڏ آنهن جي قتائشل پرويوزلز جي 2% جي براير ٻولي ضباتت متسلڪ ٿيڻ گهرجي سوتي رقم کانسول، ٻولين تي غور نہ ڪيو ويندو سوتي رقم ٻولي جي ديماد 4. برايان بررجيڪت بائريڪٽر مهراڻ يوئيورسٽي آف انجنيئرنگ اينڊ ٽيڪنارجي. شهيد فرائنقار علي پتر ڪيمپس خيريور ميرس جي آئيس ۾ مرجود ٽينڊر باڪس ۾ 100 مارچ

2015 ئي منجهند 12:00 وڳي تائين رجهي ڇڏيو ڄن کي ان ڏينهن منجهند 12:30 وڳي ڪنتريڪترز/لتي مرجود رهڻ جي خراهشمند تمائندن جي موجودگي ۾ کوليو ريندر 5 شرطيد فيڪس کي ميل ٽيلي گراف جي ڏريدي جمع ڪايل بغير سوڻي رقم واريون مقرر تاريخ يا وقت گڏري رڃڻ کاڻهن. وصول ٿيندڙ ۾ بليڪ استد قرمز جي طرفان جمع

8 مهران يوليورستي آف انجتيشزنگ ايند تيڪنالوجي شهيد فوافقار علي ڀٽر ڪيمپس خيريد ميرس کي حق حاصل آهي د هر ڪنهن يا سپني ٻولين کي سنڌ پيلڪ پروڪيورست وياز 2010 جي 2013 ۾ ترميم ڪيل لاڳاپييل بفعات جي مطابق رد ڪري ڇڏي

پروجيڪٽ ڊائريڪٽر مهراق يونيورستي آف انجنبترت ايند نيڪنالوجي شهيد ذوالفقار علي ڀٽو ڪيميس. هيريور ميرس

فون نمير: 0243-9280314



NIT published/uploaded on SPPRA website Sr. No. 22762 dated 12<sup>th</sup> Feb-2015

#### A. GENERAL

## IB. 1 Scope of Bid & Source of Funds

- Mehran University of Engineering & Technology Shaheed Z. A. Bhutto Campus Khairpur Mir's invites sealed bids from interested firms who are experienced and capable for Expansion of Voice & Data Network, Surveillance Security, Establishment of Data Centre, PC Labs and Video Conference facility on turnkey basis as specified in the Schedule of Requirements along with Technical Specifications. The Proposals are invited on TRUNKEY BAIS, so that the conformity, similarity and resemblance of items / services could be aligned in a way to ensure smooth functionality of procuring agency by avoiding conflict of Interest among different bidders to the extent of "after-sale-support". Therefore, Bidding firms must submit their BIDS for all items. In-case any bidding firm did not submit their bids for all items, their bid will be rejected forthwith
- 1.2 A complete set of Bidding documents may be purchased by the interested eligible bidders on submission of a written application to Project Director MUET, Z.A. Bhutto Campus Khairpur Mir's along with Tender Fcc Rs. 3,000.00 (Rupees three Thousand only) on any working day from 10:00 am to 02:00 pm till 5th of March-2015 Or same can be downloaded from the website of SPPRA as well as from the website of MUET Z.A. Bhutto Campus. Bidders who intend to download Bid Documents from websites can send their application along with Tender Fee (in shape of Pay Order) through Courier which shall be received three days prior to the date of opening of Bids (if such applications are not received their Bids will not be accepted / allowed / entertained to participate). These applications should reach to the Project Director, MUET, Z. A. Bhutto Campus, Khairpur Mir's
- 1.3 A pre-bidding meeting will be held with the bidders on 2<sup>nd</sup> March-2015 at 2.00pm in the office of Pro-Vice Chancellor MUET, Z.A. Bhutto Campus Khairpur Mir's for clarifications regarding TORs and BOQ and or anything else related to Bidding process or Specifications.
- 1.4 All bids must be accompanied by a Bid Security equal to 2% of their Financial Proposals in shape of Pay Order, Bank Guarantee / Demand Draft or Call Deposit.

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- 1.5 Bids must be dropped in the tender box kept in the office of Project Director on 6th March-2015 at 12.00 Noon. On same day the bids will be opened at 12.30 Noon in
- 1.6 the Committee Room, MUET, SZAB Campus Khairpur Mir's in presence of representative of Bidders who choose to attend and the members of procurement committee.
- 1.7 Conditional Bids, submitted through Fax, email, telegraph, not accompanied with bid security, Bids received after the specified date and time and the Bids submitted by the blacklisted firms will be rejected.
- 1.8 The process of procurement shall be completed through the following committees duly approved by competent authority of the University. (1) Procurement committee (2) Selection committee and (3) Approving / awarding committee.
- 1.9 Muet Z.A. Bhutto Campus Khairpur Mir's reserves the right to reject all or any bid(s) subject to the relevant provisions of Sindh Public Procurement Rules 2010 as amended in 2013
- 1.10 **Source of Funds:** ADP allocation 2014-15 for the on-going schemes being funded by Government of Sindh.

## IB.2 Eligible Bidders Evaluation Criteria

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- 2.1 Bidding is open for all firms and persons meeting the following requirements. The eligible criteria is prepared in the light of SPPRA Rules 2010 (amended in 2013), the Guidelines by SPPRA, World Bank's Guidelines for Procurement of Goods, Works & Services and the guidelines by International Chamber of Commerce as specified in the BDS. The Bid document giving instruction to the interested bidding firms to prepare their proposals in the light of given criteria so that the fair and transparent competition of "apple vs apple" could be ensured. The purpose of the evaluation criteria is to evaluate, measure & assess the stature of bidding firms and their offers to safeguard the interest of procuring agency and public money, by filtering best of the best suppliers to have a very healthy competition among the firms
  - a) Manufacturers, their agents, authorized dealers those who are having "MAL" (Manufacturer's Authorization Letter) addressed on the name of Project Director MUET Z. A. Bhutto Campus Khairpur Mir's are eligible to participate in the Bidding.

MAL is required for major component of Equipment as mentioned in the Schedule of Items. MAL is compulsorily required for Network Equipment, Computer Equipment. For rest items Dealership / Authorization certificates will be accepted. Since this project is purely of a technical nature and will be awarded on turnkey basis however those bidders who are not having MAL will not be considered. 15 marks for MAL. The Manufacturer's Authorization Letter for this project is required to ensure aftersale-support from the Manufacturer and assurance of supply of genuine material.

- b) Bidders who are experienced and capable to handle such type of projects as mentioned in the Schedule of items / Bill of Quantities, and are technically sound with proven track record are eligible to participate in the bidding process. MUET ZAB will assess the Bidders who are well conversant with MUET ZAB's existing network, will be given 15 Marks. For this purpose bidders are required submit their report(s).
- c) Bidders who are active in Business since last 10 years or more are eligible to participate in the tendering process. Their existence in the business will be assessed from the Registration Certificates issued by FBR. Total 10 marks (1 Mark for per year). The Registration date will be verified from FBR's website & print will be taken as evidence.

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- d) Bidders Name & Address will be verified from "Tax Facilitation Portal profile from FBR Website". Bidders are required to submit a printed copy of their "Tax Facilitation Portal profile" from FBR's website. The Bidder's address should be same as mentioned on FBR's "Tax Facilitation Portal profile". Bidders whose address is different than the address as mentioned on "Tax Facilitation Portal profile" will not be eligible for tendering process. The Procurement Committee may/can physically verify Bidder's office address. There are total 15 Marks. (10 Marks will be given if firm's office is situated at the same place as is declared in FBR Portal. No Marks if the Bidding firm's address is at different place from the declared address with FBR. 05 marks if office is owned by the Bidding Firm. 02 Marks if office is owned by its proprietor. 01 marks if the office is on rent). Bidders are required to Provide (Property Lease / Sub lease / Sale Dead /Tenancy Agreement). NO Marks if bidder fails to provide required documents.
- e) Bidders should be registered firms and shall provide NTN Certificate, GST Certificate, SRB Certificate, SECP Certificate, CHAMBER Certificate, Labour Department Registration Certificate. (2 mark per certificate total 10 Marks)

- f) Bidder should have successfully completed minimum 5 projects of such type and the sum of all these projects should be equal or greater value than 50Million. 2 marks for each project (total 10 marks). The bidder should provide photocopies of Job Orders and their completion Certificates with Name and contact numbers of the Organization and person for verification.
- g) Bidders should be Financially Sound and their worthiness should be at least equal to the cost of project. Since the worth of this project is estimated greater than 30 Million. However bidders are required to provide following documents for assessment of their Financial capability:
  - Clear and readable attested photocopy of Bank Statements for two years up to 31<sup>st</sup>
     December 2014, showing turnover of two years at least 60 Million. (1 mark per Million total 6 marks)
  - Five years Annual Income Tax Return 2010 to 2014, showing Annual income Tax paid should be greater than 8.0 Million. (1 mark per Million Tax paid total 8 marks)
  - 3. Three years Wealth Statement from 2012 to 2014 of Bidding firm or the proprietor / Partners / Directors of bidding firm, showing wealth nearly 30 Million. (2 marks per 10 million wealth total 6 marks.)
  - 4. Three years Sales Tax Returns (Jan 2012 to Dec 2014) Showing Sales turnover at least 80 Million for three years. (1 Mark per 10 Million total 8 marks)
  - 5. Bidder should provide Tax Assessment Order / Tax clearance Certificate till June 2013 or 2014. (7 marks)
- h) Bidders should have qualified, skilled and trained staff. The bidding firm should provide details of their qualified staff such as Name, qualification, Designation and responsibility of employee in bidding firm's organization, Mobile Phone Number, email address, and date of employment. Attach employees CVs and copies of CNICs. If the Bidding Firm is Private Limited then the number of employees should be 20, if the Bidding firm is Partnership then the number of employee should be 15, if the Bidding firm is Proprietorship then the number of employees should be 10. (total 10 marks) will be given if Bidder provides required details, and all these should be registered under Labour Law with Sindh Labour Department.

- i) The Bidding firms should either be Proprietorship, Partnership and or Private Limited. 10 Marks if the bidding firm is Private limited (provide attested copy of Memorandum of Articles), 7 marks if the Bidding firm is Partnership firm (provide attested photocopy of partnership dead) and 5 marks if the bidding firm is Proprietorship firm (provide attested copy of CNIC of proprietor.
- j) Bidders technical proposals which are substantially responsive to the requirement of MUET, Z.A. Bhuttto Campus Khairpur Mir's will be eligible. 20 Marks will be given to the most responsive offer. Deviation in specifications will be rejected.
- 2.2 Government-owned enterprises in Pakistan may participate only if they are legally and financially autonomous and operate under commercial law, can participate in bidding and meeting the above mentioned requirements.
- 2.3 Bidders under a declaration of ineligibility for corrupt and fraudulent practices issued by any Government (Federal, Provincial or Local) or a public sector organization are NOT ELIGIBLE

The evaluation will be based on "Quality Based Selection Method" as the project is of a highly Technical and Complex nature and the quality is the only factor to be taken into consideration. In the light of SPPRA Rule 49, Technical Bids will be given 80% weight whereas Financial Bids will be given 20% weight. Weight will be calculated under this formula =(100-((Total Marks – Marks Secured)÷Highest Marks x 100))x0.8 and financial bids will be calculated as this = (100-(Quoted Bid-Lowest Bid) ÷Lowest Bid\*100)\*0.20 The sum of highest scoring firm will be considered as most responsive and lowest evaluated bid.

## IB.3 Cost of Bidding

3. The bidder shall bear all costs associated with the preparation and submission of its bid and the MUET, Z.A. Bhuttto Campus Khairpur Mir's will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

## B. BIDDING DOCUMENTS

## **IB.4** Contents of Bidding Documents

- 4.1 In addition to Invitation for Bids, the Bidding Documents are those stated below, should be read in conjunction with any Addendum issued accordingly
  - 1) Instructions to Bidders & Bidding Data
  - 2) Form of Bid, Qualification Information & Schedules to Bid Schedules to Bid comprise the following:
    - (a) Schedule A: Bill of Quantities (BoQ) & Specifications
    - (b) Schedule F: Integrity Pact.
  - 3) Conditions of Contract & Contract Data
  - 4) Standard Forms:
    - i. Form of Bid Security.
    - ii. Form of Performance Security;
    - iii. Form of Contract Agreement:
    - iv. Form of Bank Guarantee for Advance Payment.

# **IB.5** Clarification of Bidding Documents

- 5.1 A prospective bidder requiring any clarification(s) in respect of the Bidding Documents may notify to the <u>Project Director MUET, Z.A. Bhuttto Campus Khairpur Mir's Phone: (024) 371-5365</u> during Bidder Meeting or after than in writing.
- An interested bidder, who has obtained bidding documents, may request for clarification of contents of bidding documents in writing to <u>Project Director MUET</u>, <u>Z.A. Bhuttto Campus Khairpur Mir's</u> who shall respond to such quarries in writing within three calendar days, provided they are received at least five calendar days prior to the date of opening of bid (SPP Rule 23-1).

# IB.6 Amendment of Bidding Documents (SPP Rules 22(2) & 22).

- At any time prior to the deadline for submission of Bids, the MUET, Z.A. Bhuttto Campus Khairpur Mir's may, for any reason, whether at his own initiative or in response to a clarification requested by an interested bidder, modify the Bidding Documents by issuing addendum.
- 6.2 Any addendum thus issued shall be part of the Bidding Documents pursuant to Sub-Clause 5.1 hereof, and shall be communicated in writing to all purchasers of the Bidding Documents. Prospective bidders shall acknowledge receipt of each addendum in writing to the Procuring Agency.
- 6.3 To afford interested bidders reasonable time in which to take an addendum into account in preparing their Bids, the Procuring Agency may at its discretion extend the deadline for submission of Bids.

#### C. PREPARATIONS OF BIDS

#### IB.7 Language of Bid

7.1 All documents relating to the Bid shall be in English Language.

## IB.8 Documents Comprising the Bid

- 8.1 The Bid submitted by the bidder shall comprise the following:
  - (a) Offer /Covering Letter
  - (b) Documents required in accordance with IB.2 (Eligibility Criteria)
  - (c) Bid Security furnished in accordance with IB.13.
  - (d) Technical offerings in accordance with BOQ

#### IB.9 Sufficiency of Bid.

- 9.7 Each bidder shall satisfy himself before Bidding as to the correctness and sufficiency of his Bid and of the premium on the rates of CSR / rates and prices quoted/entered in the Schedule of Prices, which rates and prices shall except in so far as it is otherwise expressly provided in the Contract, cover all his obligations under the Contract and all matters and things necessary for the proper completion of the works.
- 9.2. The bidder is advised to obtain for himself at his own cost and responsibility all information that may be necessary for preparing the bid and entering into a Contract for execution of the Works.

#### IB.10 Bid Prices, Currency of Bid and Payment.

The bidder shall fill up the Schedule of Prices (Schedule A to Bid) indicating the percentage above or below the Composite Schedule of Rates/unit rates and prices of the Works to be performed under the Contract. Prices in the Schedule of Prices/Bill of Quantities shall be quoted in Pak Rupees or in USD in case the is on C&F basis, keeping in view the instructions contained in the Preamble to Schedule of Prices.

- 10.2 Unless otherwise stipulated in the Conditions of Contract, prices quoted by the bidder shall remain fixed during the bidder's performance of the Contract and not subject to variation on any account.
- 10.3 The unit rates and prices in the Schedule of Prices or percentage above or below on the composite schedule of rates shall be quoted by the bidder in the currency as stipulated in Bidding Data.
- 10.4 Items for which no rate or price is entered by the Bidder will not be paid for by the Muet, Z.A. Bhutto Campus Khairpur Mir's when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.

#### IB.11 Documents Establishing Bidder's Eligibility and Qualifications.

- 11.1 Pursuant to Clause IB.8, 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.
- 11.2 Bidder must possess and provide evidence of its capability and the experience as stipulated in Bidding Data and the Qualification Criteria mentioned in the Bidding Documents.

#### IB.12 Documents Establishing Works' Conformity to Bidding Documents.

- 12.1 The documentary evidence of the Works' conformity to the Bidding Documents may be in the form of literature, drawings and data and the bidder shall furnish documentation as set out in Bidding Data.
- 12.2 The bidder shall note that standards for workmanship, material and equipment, and references to brand names or catalogue numbers, if any, designated by the Procuring Agency in the Technical Provisions are intended to be descriptive only and not restrictive.

#### IB.13 Bid Security.

13.1 Each bidder shall furnish, as part of his bid, at the option of the bidder, a Bid Security as percentage of bid price/estimated cost or in the amount stipulated in Bidding Data in Pak. Rupees in the form of Deposit at Call/ Payee's Order or a Bank Guarantee issued by a Scheduled Bank in Pakistan in favour of the Procuring Agency valid for a period

- up to twenty eight (28) days beyond the bid validity date (Bid security should be 2%. of bid price/estimated cost SPP Rule 37), in accordance of IB 1.4
- 13.2 Any bid not accompanied by an acceptable Bid Security shall be rejected by the Procuring Agency as non-responsive.
- 13.3 The bid securities of unsuccessful bidders will be returned upon award of contract to the successful bidder or on the expiry of validity of Bid Security whichever is earlier.
- 13.4 The Bid Security of the successful bidder will be returned when the bidder has furnished the required Performance Security, and signed the Contract Agreement (SPP Rule 39).
- 13.5 The Bid Security may be forfeited:
  - (a) if a bidder withdraws his bid during the period of bid validity; or
  - (b) if a bidder does not accept the correction of his Bid Price, pursuant to Sub-Clause 16.4 (b) hereof; or
  - (c) in the case of a successful bidder, if he fails within the specified time limit to:.
    - (i) furnish the required Performance Security or
    - (ii) sign the Contract Agreement.

#### IB.14 Validity of Bids, Format, Signing and Submission of Bid.

- 14.1 Bids shall remain valid for the period 90 days after the date of bid opening.
- In exceptional circumstances, Procuring Agency may request the bidders to extend the period of validity for a additional period but not exceeding 1/3 of the original period. The request and the bidders' responses shall be made in writing or by cable. A Bidder may refuse the request without forfeiting the Bid Security. A Bidder agreeing to the request will not be required or permitted to otherwise modify the Bid, but will be required to extend the validity of Bid Security for the period of the extension, and in compliance with IB.13 in all respects (SPP Rule 38).
- 14.3 All Schedules to Bid are to be properly completed and signed.

- 14.4 No alteration is to be made in the Form of Bid except in filling up the blanks as directed. If any alteration be made or if these instructions be not fully complied with, the bid may be rejected.
- 14.5 Each bidder shall prepare Original Bidding Data of the documents comprising the bid as described in IB.8.
- 14.6 The original bid shall be typed or written in indelible ink and shall be signed by Proprietor, Partners, Directors or a person or persons duly authorized to sign (in the case of copies, Photostats are also acceptable). Incase the bid is signed by other than owners, then this shall be indicated by submitting a written Power of Attorney authorizing the signatory of the bidder to act for and on behalf of the bidder. All pages of the bid shall be initialed and official seal be affixed by the person or persons signing the bid.
- 14.7 The Bid shall be delivered in person or sent by registered mail to,

Project Director MUET, Shaheed Z.A. Bhutto Campus Khairpur Mir's

#### D. SUBMISSION OF BID

# IB.15 Deadline for Submission, Modification & Withdrawal of Bids

- 15.1 Bids must be received by the Procuring Agency at place as mentioned in clause 14.7 not later than 12.00 noon on 6<sup>th</sup> March-2015.
- 15.2 The inner and outer envelopes shall
  - (a) be addressed to the Procuring Agency at the address provided in the Bidding Data;
  - (b) The Proposals should be sealed in an envelope and marked as "PROPOSAL for ESTABLISHMENT of Voice & Data Network, Surveillance Security, Establishment of Data Centre & PC Labs and Establishment of Video Conference on Turnkey Basis.
- 15.3 Bids submitted through telegraph, telex, fax or e-mail shall not be considered
- 15.4 Any bid received by the Procuring Agency after the deadline for submission prescribed in Bidding Data will be returned unopened to such bidder.
- 15.5 Any bidder may modify or withdraw his bid after bid submission provided that the modification or written notice of withdrawal is received by the Procuring Agency prior to the deadline for submission of bids.
- 15 6 Withdrawal of a bid during the interval between the deadline for submission of bids and the expiration of the period of bid validity specified in the Form of Bid may result in forfeiture of the Bid Security pursuant to IB.13.5 (a).

# E. OPENING AND EVALUATION

# IB.16 Bid Opening, Clarification and Evaluation (SPP rules 41, 32 7 43)

- 16.1 The Muet, Z. A, Bhutto Campus Khairpur Mir's will open the bids, in the presence of bidder's representatives who choose to attend, at the place as specified in clause 14.7 and date / time as specified in clause 15.1.
- 16.2 The bidder's name, Bid Prices, any discount, the presence or absence of Bid Security, and such other details as the Procuring Agency at its discretion may consider appropriate, will be announced by the Procuring Agency at the bid opening. The Procuring Agency will record the minutes of the bid opening. Representatives of the bidders who choose to attend shall sign the attendance sheet.

Any Bid Price or discount which is not read out and recorded at bid opening will not be taken into account in the evaluation of bid.

16.3 To assist in the examination, evaluation and comparison of Bids Muet, Z. A, Bhutto Campus Khairpur Mir's 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 price or substance of the Bid shall be sought, offered or permitted (SPP Rule 43).

16.4

(a) Prior to the detailed evaluation, pursuant to IB.16.7 to 16.9, the Muet, Z. A, Bhutto Campus Khairpur Mir's will determine the substantial responsiveness of each bid to the Bidding Documents. For purpose of these instructions, a substantially responsive bid is one which conforms to all the terms and conditions of the Bidding Documents without material deviations. It will include determining the requirements listed in Bidding Data.

(b) Arithmetical errors will be rectified on the following basis:

If there is a discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between the words and figures the amount in words shall prevail. If there is a discrepancy between the Total Bid price entered in Form of Bid and the total shown in Schedule of Prices-Summary, the amount stated in the Form of Bid will be corrected by the Procuring Agency in accordance with the Corrected Schedule of Prices.

If the bidder does not accept the corrected amount of Bid, his Bid will be rejected and his Bid Security forfeited.

- 16.5 A Bid determined as substantially non-responsive will be rejected and will not subsequently be made responsive by the bidder by correction of the non-conformity.
- 16.6 Any minor informality or non-conformity or irregularity in a Bid which does not constitute a material deviation (major deviation) may be waived by Procuring Agency, provided such waiver does not prejudice or affect the relative ranking of any other bidders.

#### (A). Major (material) Deviations include:-

- i. has been not properly signed;
- ii. is not accompanied by the bid security of required amount and manner;
- iii. stipulating price adjustment when fixed price bids were called for;
- iv. failing to respond to specifications;
- v. failing to comply with Mile-stones/Critical dates provided in Bidding Documents; (vi) sub-contracting contrary to the Conditions of Contract specified in Bidding Documents;
- vi. refusing to bear important responsibilities and liabilities allocated in the Bidding Documents, such as performance guarantees and insurance coverage;
- vii. taking exception to critical provisions such as applicable law, taxes and duties and dispute resolution procedures;

- viii. a material deviation or reservation is one:
  - a) which affect in any substantial way the scope, quality or performance of the works;
  - b) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

#### (B). Minor Deviations:-

Bids that offer deviations acceptable to the Procuring Agency and which can be assigned a monetary value may be considered substantially responsive at least as to the issue of fairness. This value would however be added as an adjustment for evaluation purposes only during the detailed evaluation process.

- 16.7 The Muet, Z. A, Bhutto Campus Khairpur Mir's will evaluate and compare only the bids determined to be substantially responsive pursuant to IB.16.4 to 16.6 as per requirements given hereunder. Bids will be evaluated for complete scope of works. The prices will be compared on the basis of the Evaluated Bid Price pursuant to IB.16.8 herein below.
- 16.8 The evaluation will be based on "Quality Based Selection Method" as the project is of a highly Technical and Complex nature and the quality is the only factor to be taken into consideration. In the light of SPPRA Rule 49, Technical Bids will be given 80% weight whereas Financial Bids will be given 20% weight. Weight will be calculated under this formula =(100-((Total Marks Marks Secured)÷Highest Marks x 100))x0.8 and financial bids will be calculated as this = (100-(Quoted Bid-Lowest Bid) ÷Lowest Bid\*100)\*0.20 The sum of highest scoring firm will be considered as most responsive and lowest evaluated bid.

## **IB.17** Process to be Confidential

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17.1 Subject to IB.16.3 heretofore, no bidder shall contact Engineer/Procuring Agency on any matter relating to its Bid from the time of the Bid opening to the time the bid evaluation result is announced by the Procuring Agency. The evaluation result shall be announced at least seven (07) days prior to award of Contract (SPP Rule 45). The announcement to all bidders will include table(s) comprising read out prices,

discounted prices, price adjustments made, final evaluated prices and recommendations against all the bids evaluated.

17.2 Any effort by a bidder to influence Engineer/Procuring Agency in the Bid evaluation, Bid comparison or Contract Award decisions may result in the rejection of his Bid. Whereas any bidder feeling aggrieved, may lodge a written complaint to Complaint Redressal Committee as per terms and conditions mentioned in SPP Rules 31 & 32. However, mere fact of lodging a complaint shall not warrant suspension of procurement process.

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- 17.3 Bidders may be excluded if involved in "Corrupt and Fraudulent Practices" means either one or any combination of the practices given below SPP Rule2(q);
  - 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 Practicel" 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;
  - iv. "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 Page 25 of 70

investigation or from pursuing the investigation, or acts intended to materially impede the exercise of inspection and audit rights provided for under the Rules.

# F. AWARD OF CONTRACT

#### **IB.18 Post Qualification**

- 18.1 The Procuring Agency, at any stage of the bid evaluation, having credible reasons for or *prima facie* evidence of any defect in contractor's capacities, may require the contractors to provide information concerning their professional, technical, financial, legal or managerial competence whether already pre-qualified or not:
  - Provided, that such qualification shall only be laid down after recording reasons therefore in writing. They shall form part of the records of that bid evaluation report.
- 18.2 The determination will take into account the bidder's financial and technical capabilities. It will be based upon an examination of the documentary evidence of the bidder's qualifications submitted under B.11, as well as such other information required in the Bidding Documents.

#### **IB.19 Award of Contract**

19.1 Subject to IB.19.2, the Procuring Agency will award the Contract in the light of SPPRA Rule No. 49, to the bidder whose bid has been determined to be substantially responsive to the Bidding Documents and his bid stands as "Lowest Evaluated Bid" which means a bid most closely conforming to evaluation criteria and other conditions specified in the bidding document, having lowest evaluated cost, but not necessarily the lowest submitted price. Award will be based on "Quality Based Selection Method" as the project is of a highly Technical and Complex nature and the quality is the only factor to be taken into consideration. In the light of SPPRA Rule 49, Technical Bids will be given 80% weight whereas Financial Bids will be given 20% weight. Weight will be calculated under this formula =(100-((Total Marks – Marks Secured)+Highest Marks x 100))x0.8 and financial bids will be calculated as this = (100-(Quoted Bid-Lowest Bid) +Lowest Bid\*100)\*0.20 The sum of highest scoring firm will be considered as most responsive and lowest evaluated bid, accordingly contract will be awarded.

19.2 Not withstanding IB.19.1, 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 award of Contract, without thereby incurring any liability to the affected bidders or any obligation to inform the affected bidders of the grounds for the Procuring Agency's action except that the grounds for its rejection of all bids shall upon request be communicated, to any bidder who submitted a bid, without justification of the grounds. Notice of the rejection of all the bids shall be given promptly to all the bidders (SPP Rule 25).

# IB.20 Notification of Award & Signing of Contract Agreement

- 20.1 Prior to expiration of the period of bid validity prescribed by the Procuring Agency, the Procuring Agency will notify the successful bidder in writing (—Letter of Acceptancel) that his bid has been accepted (SPP Rule 49).
- 20.2 Within seven (07) days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the Procuring Agency will send the successful bidder the Form of Contract Agreement provided in the Bidding Documents, incorporating all agreements between the parties.
- 20.3 The formal Agreement between the Procuring Agency and the successful bidder duly stamped at rate of 0.30% of bid price(updated from time to time) stated in Letter of Acceptance shall be executed within seven (07) days of the receipt of Form of Contract Agreement by the successful bidder from the Procuring Agency.

#### **IB.21 Performance Security**

- 21.1 The successful bidder shall furnish to the Procuring Agency a Performance Security in the form of Bank Guarantee / Insurance Guarantee / Pay Order equal to the 10% of Job Order and the amount stipulated in the Conditions of Contract within a period of fourteen (14) days after the receipt of Letter of Acceptance (SPP 39).
- 21.2 Failure of the successful bidder to comply with the requirements of Sub-Clauses IB.20.2 & 20.3 or 21.1 or Clause IB.22 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.
- 21.3 The Publication of Bid Evaluation Reports within seven days of the award of contract, the procuring shall publish on the website of the authority and on its own website.

# **IB.22 Integrity Pact**

The Bidder shall sign and stamp the Form of Integrity Pact provided at Schedule-F to Bid in the Bidding Document for all Sindh Government procurement contracts exceeding Rupees ten (10) million. Failure to provide such Integrity Pact shall make the bid nonresponsive (SPP Rule 89).

# Section - III Forms of Bid

#### FORM OF BID

## (LETTER OF OFFER)

В	d Reference No(Name of Works)
To	o:
_	
_	
C.	ntless
	entlemen,
1.	Having examined the Bidding Documents including Instructions to Bidders, Bidding Data
	Conditions of Contract, Contract Data, Specifications, Drawings, if any, Schedule of Prices and
	Addenda Nos for the execution of the above-named works, we
	the undersigned, being a company doing business under the name of and address
	duly incorporated under the laws of Pakistan hereby offer to execute and complete such works
	and remedy any defects therein in conformity with the said Documents including Addenda
	thereto for the Total Bid Price of
	Rs(Rupees) or such other sum as may be
	ascertained in accordance with the said Documents.
2.	We understand that all the Schedules attached hereto form part of this Bid.
3.	As security for due performance of the undertakings and obligations of this Bid, we submit
	herewith a Bid Security in the amount of drawn in your favour or made
	payable to you and valid for a period of twenty eight (28) days beyond the period of validity of
	Bid.
4.	We undertake, if our Bid is accepted, to commence the Works and to deliver and complete the
	Works comprised in the Contract within the time(s) stated in Contract Data.
5.	We agree to abide by this Bid for the period of days from the date fixed for receiving
	the same and it shall remain binding upon us and may be accepted at any time before the
	expiration of that period.
6.	Unless and until a formal Agreement is prepared and executed, this Bid, together with your
	written acceptance thereof, shall constitute a binding contract between the bid, together with your

7. We un Condit	ake, if our Bid is accepted, to execute the Performance Security referred to of Contract for the due performance of the Contract.
8 We und	and that you are not bound to accept the lowest or any bid you may receive.
9. We do arrange	eby declare that the Bid is made without any collusion, comparison of figures of twith any other person or persons making a bid for the Works.
Dated this	day of, 20
	Signature
	in the capacity of
	duly authorized to sign bid for and or
	behalf of
	(Bidding Firm's Name & Address)
	(Seal)
Witness:	
(S gnature)	
No	
Name:	

#### (INTEGRITY PACT)

# DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC PAYABLE BY CONTRACTORS (FOR CONTRACTS WORTH RS. 10.00 MILLION OR MORE)

Contract No	Dated		
Contract Title:	Contract Value:		
in luced the procurement of any contract, right,	ntractor] hereby declares that it has not obtained o interest, privilege or other obligation or benefit fron tive subdivision or agency thereof or any other entity rupt business practice.		
agreed to give and shall not give or agree to give or indirectly through any natural or juridical perconsultant, director, promoter, shareholder, sp bribe, finder's fee or kickback, whether describe obtaining or inducing the procurement of a contraction.	g, [name of Contractor] represents and warrants that it fees etc. paid or payable to anyone and not given once to anyone within or outside Pakistan either directly erson, including its affiliate, agent, associate, broker consor or subsidiary, any commission, gratification ed as consultation fee or otherwise, with the object of intract, right, interest, privilege or other obligation or g Agency (PA) except that which has been expressly		
disclosure of all agreements and arrangement	and strict liability that it has made and will make full is with all persons in respect of or related to the n or will not take any action to circumvent the above		
this declaration, representation and warranty. It offer obligation or benefit obtained or procure	and strict liability for making any false declaration, sor taking any action likely to defeat the purpose of agrees that any contract, right, interest, privilege or d as aforesaid shall, without prejudice to any other law, contract or other instrument, be voidable at the		
account of its corrupt business practices and furtito ten time the sum of any commission, gratifications.	exercised by PA in this regard, [name of nnify PA for any loss or damage incurred by it on her pay compensation to PA in an amount equivalent ation, bribe, finder's fee or kickback given by [name staining or inducing the procurement of any contract, nefit in whatsoever form from PA.		
[Procuring Agency]	[Contractor]		

# SCHEDULES TO BID INCLUDE THE FOLLOWING:

- Schedule A to Bid: Schedule of Prices
- Schedule B to Bid: Specific Works Data
- Schedule C to Bid: Works to be Performed by Subcontractors
- Schedule D to Bid: Proposed Program of Works
- Schedule E to Bid: Method of Performing Works
- Schedule F to Bid: Integrity Pact]

# Section- IV Bill of Quantities "BOQ" & Specifications

# Tender Detail Document

# Part No.1:

Extension of Data/Voice services at Existing Campus (Electrical Engineering, P&NG Eng., Central Library, Bus Parking, and proposed Auditorium).

# Part No. 2:

Extension of Data/Voice services at New Land of Campus (One Staff Hostel, Three Boys Hostels, Two Main Gates and for proposed one Girls Hostel).

# Part No. 3:

Establishment of Data Centre, PC Labs and video Conference facility at Central Library.

# Part No.4:

Extension of Surveillance Security services at Existing Campus

# Part No.1

Category A
(Active Equipment)

Sno.	Item	Quantity
1.	Providing/Fixing/Installing 10/100/1000 24 Ports Manageable Access Switch	09
	With following features and support, complete in all aspects	· ·
	Equivalent / Latest.	
	Interface Requirements	
	24x1G PoE (copper) ports	
	• 4x1G SFP ports	
	Should support SX/LX/LH	
	General Requirements	
	Should support switching capacity of 56 Gbps     Should support the state of 56 Gbps	
	• Should support throughput of 41 mpps	
	Should support real-time traffic classification with support for eight  priority levels manual to vill	
	priority levels mapped to either two or four queues, and uses weighted	
	deficit round robin (WDRR) or strict priority  • Should support Prioritization of traffic by specifying a part and	
	<ul> <li>Should support Prioritization of traffic by specifying a port and priority level</li> </ul>	
	Should support Prioritization of traffic by specifying a VLAN and	
İ	priority level	
	<ul> <li>Should support IEEE 802.1p priority tag based on IP address, IP Type</li> </ul>	
l	of Service (ToS), Layer 3 protocol, TCP/UDP port number, source	
1	port, and DiffServ	
	<ul> <li>Should support per-port ingress-enforced maximums for all ingress</li> </ul>	
	traffic or for broadcast, multicast, or unknown destination traffic	
	<ul> <li>Should support prioritization based on TCP/UDP port numbers</li> </ul>	İ .
	Should support full cli	
	<ul> <li>Should support Netflow/Jflow/Sflow</li> </ul>	
i	Should support LLDP	
İ	Should support port mirroring	
	Should support RMON	
	Should support IPv6	
ŀ	Should support MLD Snooping	
	<ul> <li>Should support IPv6 ACL/QoS</li> </ul>	
	<ul> <li>Should support RA guard, DHCPv6 protection</li> </ul>	
	<ul> <li>Should support 512 active vlans</li> </ul>	
	<ul> <li>Should support 16k mac addresses</li> </ul>	
i	Should support STP/RPVST+	
	Should support source port filtering	
]	Should support RADIUS/TACACS+	
	Should support port security	
	Should support mac address lockout	
	Should support 802.1x	
Ī	Should support mac based authentication	
	Should support STP BPDU protection	
	Should support STP root guard	
	Should support protected ports	
	Should support DHCP protection	

1	Should support dynamic arp protection	
	Should support dynamic ip lockdown	
	Should support voice vlan	
	Should support local mac authentication	
	Should support LACP	
	Should support 802.3az	
<u> </u>	Should provide 3 years24/7 principal TAC support.	
2.	Providing/Fixing/Installing 10/100/1000 48 Ports Manageable Access Switch	08
	with following features and support, complete in all aspects	
	Equivalent / latest	
	Interface Requirements	
	48x1G PoE (copper) ports	
	· ·	
	• 4x1G SFP ports	
	Should support SX/LX/LH	
	General Requirements	
	Should support switching capacity of 100 Gbps	
	Should support throughput of 77 mpps	
	Should support real-time traffic classification with support for eight	
	priority levels mapped to either two or four queues, and uses weighted	
	deficit round robin (WDRR) or strict priority	
	Should support Prioritization of traffic by specifying a port and	
	priority level	
	Should support Prioritization of traffic by specifying a VLAN and	
	priority level	
	Should support IEEE 802.1p priority tag based on IP address, IP Type	
	of Service (ToS), Layer 3 protocol, TCP/UDP port number, source	
	port, and DiffServ	
	Should support per-port ingress-enforced maximums for all ingress	
	traffic or for broadcast, multicast, or unknown destination traffic	
	Should support prioritization based on TCP/UDP port numbers	
	Should support full cli	
	Should support Netflow/Jflow/Sflow	
	Should support LLDP	
	Should support port mirroring	
	Should support RMON	
	Should support IPv6	
	Should support MLD Snooping	
	Should support IPv6 ACL/QoS	
1	<ul> <li>Should support RA guard, DHCPv6 protection</li> </ul>	
	Should support 512 active vlans	
İ	Should support 16k mac addresses	
-	Should support STP/RPVST+	
	Should support source port filtering	
	Should support RADIUS/TACACS+	
	Should support port security	
	Should support mac address lockout	
	Should support 802.1x	
1	Should support mac based authentication	
1	Should support STP BPDU protection	
	Should support STP root guard	
	Should support protected ports	
į	Should support DHCP protection	
	Should support dynamic arp protection	
	p.o.s otto.	

	Should support dynamic ip lockdown	
	Should support voice vlan	
	Should support local mac authentication	
	Should support LACP	
	Should support 802.3az	
	<ul> <li>Should provide 3 years24/7 principal TAC support.</li> </ul>	
3.	Proving/Fixing/Installing Wireless Access Points/Routers and Controller	01
	support up to 300Mbps, with following features and support + complete in all	Controlle
	aspects Equivalent / Latest	r &
İ	General Requirements:	45
	<ul> <li>Should be able to operate in both autonomous and controller based mode.</li> </ul>	Access
		Points
l ı	<ul> <li>Should support 802.11 a/b/g/n</li> <li>Should support 3x3 Spatial streams</li> </ul>	
!	Should support 3x3 Spatial streams     Should support Automatic radio power adjustments	
	Should support Automatic radio power adjustments     Should support intelligent channel switching and real time interference	
	detection	
1	Should support intelligent client load balancing	
	Should support airtime fairness	
	<ul> <li>Should support measuring of noise from remote 802.11 sources.</li> </ul>	
	<ul> <li>Should support integrated IDS</li> </ul>	
	<ul> <li>Should support enhanced AP survivability</li> </ul>	
	Should support Rate limiting	
	Should support 802.1p prioritization	
	Should support L2/L3/L4 classification	
-	Should support at least 10 active voice calls per radio	
	Should support Auto-MDIX on Ethernet interface	
1	Should support Beamforming	
İ	Should support Bandsteering	
	Should meet the European EN60601-1-2 standard for healthcare	
	<ul> <li>Should support up to 16 SSIDs, each with unique MAC address and configurable SSID broadcasts</li> </ul>	
İ	<ul> <li>Should support IEEE 802.1X authentication using EAP-SIM, EAP-FAST, EAP-TLS, EAP-TTLS, and PEAP</li> </ul>	
	Should provide provides RADIUS AAA using EAP-MD5, PAP,	
	CHAP, and MS-CHAPv2	
	Should support RADIUS Client (RFC 2865 and 2866) with location-	i
	aware support	
	Should provide Layer 2 wireless client isolation	
	Should support locking out of unauthorized wireless access by	
	authenticating users prior to granting network access	
	Should support following standards:	
	o WPA	
	o IEEE 802.11i (WPA2, RSN)	
	o RFC 1321 MD5 Message-Digest Algorithm	
	<ul> <li>RFC 2246 TLS Protocol Version 1.0</li> <li>WEP 40/64 and 104/128 bits TKIP-MIC:</li> </ul>	
	o RC4 40 bits (both static and shared keys)	
	AES: CCM, CCMP	
ĺ	i.z. com, com	
-	1	
		1

N	4-port SFP v2 zl Module ASM775 zl Premium Controller Module ASM Additional 10 Access Point E-LTU	
1	Vireless Controller ( MSM 775zl)	
	General Requirements	
	Should support minimum of 200 APs	
	Should support minimum of 2000 concurrent Users	İ
	Should support Automatic radio power adjustments	
	and adopting the territorian power adjustments	
	and adopted Materialic Tadio Chainlei	
	one and support interingent enemt load balancing	
	and a support I owen nequency spectrum analysis	
	Should identify source of RF interference; for example, Bluetooth,	
	cordless phones, and microwave ovens.	-
!	Should help detect severe channel degradation and improves the	
İ	reporting of poor RF performance	i
	Should allow administrators to monitor and troubleshoot their HP	
1	WLAN infrastructure at a glance	
	Should provide analytical visibility into multiple areas such as:	1
	Wireless Clients, Access Points and Alarms utilizing intuitive graphics	
	and colors	
	<ul> <li>Should provide support for environments using Bonjour services</li> </ul>	
	<ul> <li>Should allow discovery of Bonjour services located in a different layer-</li> </ul>	ĺ
	3 network	
	<ul> <li>Should enable filters to be applied inbound and outbound (on the AP)</li> </ul>	
	to SSIDs, groups of or specific APs. User based filtering can block	
	Bonjour traffic until the user is authenticated	
	<ul> <li>Should support Redirection of 5 GHz-capable clients automatically to</li> </ul>	
	the less-congested 5 GHz spectrum	
i	<ul> <li>Should support authenticated network access</li> </ul>	
-	Should support Rate Limiting	
	Should enable robust identity- and role-based user account profiles to	
	use internal or external AAA services	
ŀ	Should provide standard L2 roaming and VoWLAN support on all	
	controllers, advanced fast roaming on mobility controllers, plug-and-	
	play AP management, as well as public and guest Internet access	
	Should support IEEE 802.1X, Active Directory, and RADIUS network	
	logins	
	Should support RADIUS-based MAC authentication	
	Should support Standards-based authentication support for Microsoft	
	Active Directory and IEEE 802.1X	
	Life Time Warranty	
		_
4. Pro	oviding/Fixing/Installing 12 SFP Ports Core Switch, with following features	
ane	d support complete in all aspects. (Equivalent / Latest)	
ĺnt	erface Requirements	
''''	Should support 10/100/1000 Copper and Fiber ports	
ļ	Should support 10/100/1000 Copper and Fiber ports     Should support 10G SFP+ ports	
	Should have minimum switching capacity of 500 Gbps	
Ge	neral Requirements	
	Should be modular and support atleast 6 line card slots.	
	Should support redundant management modules	
	Page 39 of 70	

	Should support redundant power supplies	<del></del>
	Should support traffic classification based on layer 2,3 and 4	
	information	
	Should support prioritization based on TCP/UDP port numbers	
	Should support Port-based rate limiting	
	Should support Classifier-based rate limiting	
	Should support RMON, XRMON	
	Should support Netflow, Jflow, Sflow	
	Should support LLDP	
	Should support UDLD	
	Should support 802.3az	
	Should support Jumbo Frames	
	Should support VRRP	
	Should support STP/RSTP/MSTP	
	Should support LACP	
	Should support at least 2000 Vlans     Should support 803 be greated by the support support 803 be greated by the support	
	Should support 802.1v protocol Vlans     Should support 802.1v d out 0	
	Should support 802.1ad and Q-in-Q     Should support MACOR	
	Should support MAC-Based Vlan     Should support Parts	
	Should support Route-map     Should support PUR/OCEDE/DCED	
	Should support RIP/OSPF/BGP     Should support RIP/OSPF/BGP	
	Should support Policy based routing	
	Should support ACLs	
	Should support 802.1x	
	Should support MAC based authentication	
	Should support ICMP Throttling	
	Should support STP BPDU port protection	
	Should support STP Root Guard	
	Should support Port security	
	Should support Mac address lockout	
	Should support LLDP-MED	
	Should support PIM Dense mode and Sparse mode	
	Should support auto vlan configuration for voice	
	Should support 3 year 24x7 Principal TAC Support  Brand HP / Cisco or equivalent.	
5.	Providing/Fixing/Installing Single Mode Fiber compatible with Sr. No. 1,2 &4	
	HP X121 IG SFP LC LX Transceiver or equivalent SFP Module, complete in	24
	all aspects	
6.	Providing/Fixing/Installing HP X121 IG SFP LC LH Transceiver or GLC - ZX	01
	- SM or Equivalent or Single Mode Fiber SFP Module support range up to	VI
	80KM, complete in all aspects	
7.	Providing/Fixing/Installing Core i7 Laptop Computer/Latest, complete in all	02
	aspects having following features and support.	
	Equivalent models and Brands are also acceptable	
	Intel Core i7- 5 <sup>th</sup> Generation Processor 2.4 GHZ Quad Core 8 GB 1600MHz DDR3L 2DM 650 AN 1	
ļ	1TB 5400RPM Hard Disk	
	DVD+/-RW SM DL 650 AN 1	
	WEBCAM Integrated 720p HD 650 AN 1	
ļ	15.6 LED HD SVA AG f/CAM flat 650 AN 1	
	Integrated Intel Graphic	
	VGA/HGMI port	

	Broadcom 943228 abgn 2x2 +BT 4.0 LEWW650 AN 1		
	Fingerprint Reader 650 AN 1		
	6 Cell 55 WHr 650 AN 1		
	65 Watt Smart nPFC AC Adapter 650 AN 1		
	Pre-Installed OS Licensed Antivirus Three Years Subscription With Bag + One year warrantee.		
8	Providing/Fixing/Installing Core i7Desktop Computer/Latest, comp		
	aspects. Equivalent models and Brands are also acceptable	olete in all	03
1	Intel Core i7-4770 3.4G 8M HD 4600 CPU 5U 1		
	8GB DDR3-1600 DIMM (2x4GB) RAM 5U I		
	1TB 7200 RPM SATA 6G HDD 5U 1		
	USB Wired W8 Keyboard 5U 1		
	USB Wired Optical Mouse 5U 1	ļ	
	SuperMulti DVDRW 1st ODD 5U 1		
	18.5-inch LED Backlit MNT BO 1		
	MUET Bootup Logo by Manufacturer.		į
1	1GB Graphic Card.		
	300W aPFC Chassis 5U 1		
	Pre-Installed OS Licensed Antivirus Three Years Subscription		
	MUET Z. A. Bhutto boot up Logo by the Manufacturer		
9.	Providing/Fixing/Installing Latest International Branded Computer	r Server	03
	Machines/Latest, complete in all aspects		
	Configuration of Raid Controller,		İ
	Pre-Installed OS Licensed AntiVirus three year subscription.		
		TY	
	HP DL380 Gen8 Server or Latest or Equivalent	1	
	Intel® Xeon® Processor E5-2620 v3 (15M Cache, 2.40	2	
	Oriz)		
		8	
	1000GB 6G SAS 10k RPM Hard Disk	6	
	HP 9.5mm SATA DVD RW Jb Kit	1	
	HP Ethernet 1GbE 4P 331FLR FIO Adptr	1	
		1	
	ATT D. I	<del>:</del>	
		<del>`</del>	
		2	
10	- <del> </del>	2	
101	Providing/Fixing/Installing16 Port IP Based KVM Switch with 18.5	inch LED	01
<u> </u>	monitor, keyboard, mouse, etc., complete in all aspects		
111	Providing/Fixing/Installing 1KVA UPS complete in all aspects havi	ing	21
	following features:		
	Output Power Capacity:1050 Watts / 1500 VA		
	Waveform: Type Sine wave		
	Bypass: Built-in Bypass		İ
	Battery Type: Maintenance-free sealed Lead-Acid battery with suspendent classification in the suspendent control of the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed Lead-Acid battery with suspendent classification in the sealed classification in the seale	ended	
	Typical recharge time :3 hour(s)		
	Run Time: 30 minutes (Approximate) on 400watts load		
	Warranty one Year		
12.	Providing/Fixing/Installing 10 KVA online UPS with maintenance f	rea dry	02
	batteries providing 2 Hours backup time on 2700 Watts load, Auto st	tart nower	02
	on after zero level charging, hard Wire Output connections. LCD Dis	enlav	
	Alamrm One year complete Warrantee including Batteries. complete	in all	
	aspects. Brand: APC or equivalent.	i	
13.	Providing/Fixing/Installing 20 KVA online UPS with maintenance fr	ree dry	01
	patteries providing 2 Hours backup on 5Kw load, Auto Start on after	zero level	* '
	Dans 41 of 70		

	Brand AMP/Clipsal/3M or Equivalent	
26	all aspects	08
27.	for the optical Fiber in and copper cable, complete in all aspects	6000ft
28.	Providing/Fixing/Installing 08 Ports Fiber Optics Enclosure, complete in all aspects Brand AMP/Clipsal/3M or Equivalent	07
29.	Providing/Fixing/Installing 32 Ports Fiber Optics Enclosure, complete in all aspects Brand AMP/Clipsal/3M or Equivalent	03
30. 	Providing/Fixing/Installing Cat-6 Ethernet Cable Complete in all aspects Brand AMP/Clipsal/3M or Equivalent	8000ft
31.	Providing/Fixing/Installing Channel Patti 1 " inch Complete in all aspects	8000ft
32	Providing/Fixing/Installing Cabinet with lock system for Wireless Access Points, complete in all aspects	45
33.	Providing/Fixing/Installing 12U Networking cabinet, complete in all aspects	17
34.	Providing/Fixing/Installing 42U Networking cabinet, complete in all aspects	02
35.	Providing/Fixing/Installing 1m CAT-06 Patch Cords, complete in all aspects Brand AMP/Clipsal/3M or Equivalent	700
36.	Providing/Fixing/Installing 3m CAT-06 Patch Cords, complete in all aspects Brand AMP/Clipsal/3M or Equivalent	700
37.	Earth Grounding work (output less than 1 ohm), complete in all aspects	18

<u>Category C</u> Voice L'quipment

	Item	Quantity
38		Quantity

Large type power supply for each cabinet The proportion of the Law St. Co. Law St. Expension cabinet free 11 slots Historia and Charles E. S. A. Interconnection bus master Card for basic shelf Lo Port Digital Hybrid Extension Card 08 digital ports for operator console, 08 for anlogue extensions 24 Ports Analogue Extension Card 288 analogue extension ports with CLI 16 Ports Analogue Trunk Card 16 ports for analog trunk lines 08 Ports CLT Card 08 ports cli card for analog trunk card PRECardent 30 Channel PRI Card with built in CLI Digital Set Large, Backlit LCD Display Full Duplex Speakerphone Electronic Hook Switch (EHS) Support Headset supported Ringtones x 30 6 lines display 24 /Characters Message Card 4 channel greeting message card64 types of recordingautomatic schedule for day, lunch, break and night PC Console Software PC Soft console for operators Call handling, Call transfer, Call hold, monitoring all trunk and intercom status Tele manager Call Logging Software Call logging software with supported reporting formats:date, time, extension number, trunk line, duration, monthly, quarterly, 6 month, yearly, specific number, ascending and descending Main Distribution Frame

	Main Distribution Frame Box 100 pair with PABX cables for all cards, 10 pair crone strip with 100 pair frame installation, testing & training	
	Include Labor Charges for Removing Existing 100 line PABX and Installing above mentioned Exchange Warranty and Free Maintenance Three Years	
39	Providing/Fixing/Installing Voice MDF Box with Voice strips for 500 lines EPABX, complete in all aspects	0
40	Providing/Fixing/Installing Voice MDF Box and Voice strip for each 50 Lines each, complete in all aspects	03
41	Providing/Fixing/Installing Voice MDF Box and Voice strip for each 10 Lines, complete in all aspects	04
	Provision Data/Voice Troubleshooting Kit, complete in all aspects, Crimping Tools, Data & Voice Punch Tools, Voice punch Dongle, Screw Driver, Nose pliers, Cutter pliers, Cable Strippers Pocket Flashlight, Cable Tester Tool, RJ-45 connectors, RJ-11 Connectors	01
43	Providing/Fixing/Installing Latest IP Telephone Sets with CLI features, complete in all aspects	02
44	Providing/Fixing/Installing Latest Telephone Sets, complete in all aspects	245
45	Complete Training of EPABX, Network Access and Core Switch, Wireless Access Points at vender premises for Two ICPC Staff Member of EPABX	01

# Part No.2

Category A
(Active Equipment)

Sno.	Item	Quantit
1.	Providing/Fixing/Installing 10/100/1000 48 Ports Manageable Access Switch 2	1
	SPP uplink/Latest, complete in all aspects Equivalent / Latest	1
	Interface Requirements	
	• 48x1G PoE (copper) ports	
	• 4x1G SFP ports	
	Should support SX/LX/LH	
	General Requirements	İ
	<ul> <li>Should support switching capacity of 100 Gbps</li> </ul>	
	Should support throughput of 77 mpps	
	Should support real-time traffic classification with support for eight	
i	priority levels mapped to either two or four queues, and uses weighted	
į.	deficit round robin (WDRR) or strict priority	
	<ul> <li>Should support Prioritization of traffic by specifying a port and</li> </ul>	
	priority level	
	<ul> <li>Should support Prioritization of traffic by specifying a VLAN and</li> </ul>	
İ	priority level	
	Should support IEEE 802.1p priority tag based on IP address, IP Type	
	of Service (ToS), Layer 3 protocol, TCP/UDP port number, source	
	port, and DiffServ	
	Should support per-port ingress-enforced maximums for all ingress	
	traffic or for broadcast, multicast, or unknown destination traffic	
- 1	Should support prioritization based on TCP/UDP port numbers	
ĺ	Should support full cli	
	Should support Netflow/Jflow/Sflow	
İ	Should support LLDP	
	Should support port mirroring	
	Should support RMON	
	Should support IPv6	
	Should support MLD Snooping	
	Should support IPv6 ACL/QoS	
	Should support RA guard, DHCPv6 protection	
	Should support 512 active vlans	
Ī	<ul> <li>Should support 16k mac addresses</li> </ul>	
	Should support STP/RPVST+	
	Should support source port filtering	
	Should support RADIUS/TACACS+	
	Should support port security	
	Should support mac address lockout	
	Should support 802.1x	
	Should support mac based authentication	
	Should support STP BPDU protection	
	Should support STP root guard	
	Should support protected ports	
	Should support DHCP protection	
	Should support dynamic arp protection	
	Should support dynamic ip lockdown	
$\bot$	Should support voice vlan	

	Charlet Annual Land	
	Should support local mac authentication     Should support I A CP.	
	<ul> <li>Should support LACP</li> <li>Should support 802.3az</li> </ul>	
	<ul> <li>Should provide 3 years24/7 principal TAC support.</li> </ul>	
	Brand HP / Cisco or equivalent	
2.	Providing/Fixing/Installing 12 SFP Ports Core Switch, complete in all aspects  Equivalent / Latest	01
	Equivalent / Latest	
	Interface Requirements	
	Should support 10/100/1000 Copper and Fiber ports	
	Should support 10G SFP+ ports	
	Should have minimum switching capacity of 500 Gbps	
	General Requirements	
	<ul> <li>Should be modular and support atleast 6 line card slots.</li> </ul>	
	Should support redundant management modules	
	Should support redundant power supplies	
	Should support traffic classification based on layer 2,3 and 4	
	information	
	Should support prioritization based on TCP/UDP port numbers	
	Should support Port-based rate limiting	
	Should support Classifier-based rate limiting	
	Should support RMON, XRMON	
	Should support Netflow, Jflow, Sflow	
	Should support LLDP	
	Should support UDLD	
	Should support 802.3az	
	Should support Jumbo Frames	
	Should support VRRP	
ĺ	Should support STP/RSTP/MSTP	
	Should support LACP	
	Should support atleast 2000 Vlans	
	Should support 802.1v protocol Vlans	
	Should support 802.1ad and Q-in-Q	
ł	Should support MAC-Based Vlan	1
	Should support Route-map	
	Should support RIP/OSPF/BGP	
	Should support Policy based routing	ļ
	Should support ACLs	
	Should support 802.1x	
	Should support MAC based authentication	
i	Should support ICMP Throttling	
	Should support STP BPDU port protection	
	Should support STP Root Guard	
	Should support Port security	
	Should support Mac address lockout	-
	Should support LLDP-MED	
	Should support PIM Dense mode and Sparse mode	
	Should support auto vlan configuration for voice	
	Should support 3 year 24x7 Principal TAC Support	
	Brand HP / Cisco or equivalent	

3	Providing/Fixing/Installing Single Mode Fiber SFP Module, complete in all	
	aspects HP X121 IG SFP LC LX Transceiver or equivalent, compatible with	20
	S no. 1 & 2 Transceiver or equivalent. compatible with	]
4	Providing/Fixing/Installing 1KVA online LIPS	<del> </del>
	Providing/Fixing/Installing 1KVA online UPS, , complete in all aspects having following specifications:	01
	Output Power Capacity:1050 Watts / 1500 VA	
	Waveform: Type Sine wave	
	Bypass: Built-in Bypass	1
	Battery Type: Maintenance-free sealed Lead-Acid battery with suspended	
	electrolyte: leak-proof	
	Typical recharge time: 3 hour(s)	
	Run Time: 30 minutes (Approximate) on 400watts load	
	Warranty one Year	!!!
	Brand APC or Equivalent	
5.		<del> </del>
	following specifications:	08
	Output Power Capacity :1980 Watts / 2200 VA	
-	Waveform: Type Sine wave	İ
	Bypass: Built-in Bypass	
1	Battery Type: Maintenance-free sealed Lead-Acid battery with suspended	
	electrolyte: leak-proof	
	Typical recharge time :3 hour(s)	
	Run Time: 30 minutes (Approximate) on 580watts load	
	Warranty one Year	
6.		01
1	following specifications:	01
ĺ	Output Power Capacity :4200 Watts / 6000 VA	
	Waveform: Type Sine wave	
	Bypass: Built-in Bypass	
	Battery Type :Maintenance-free sealed Lead-Acid battery with suspended	
	electrolyte: leak-proof	
	Typical recharge time :3 hour(s)	i
	Run Time: 30 minutes (Approximate) on 1000watts load	ĺ
	Warranty one Year	
7.	Providing/Fixing/Installing AC Voltage Rectifier/ Stabilizer / Regulator to	01
	control High/Low voltage for 6KVA UPS, complete in all aspects. Warranty	01
	One Year, compatible with Sno. 6	1

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Category B
Passive Equipment

8.	Providing/Fixing/Installing 200 Pair Voice Armored Cable, complete	15000ft
	Drawing/Maps shall be provided by vendor after completion Warranty and Free Maintenance Three Years	1300011
	complete in all aspects Brand AMP/Clipsal/3M or Equivalent	
9.	Providing/Fixing/Installing 10 Pair Voice Armored Cable complete	7800ft
	Free Maintenance Three Years	
	complete in all aspects Brand AMP/Clipsal/3M or Equivalent	
10.	Providing/Fixing/Installing 8 Cores 9/125/higher, complete Drawing/Maps shall be provided by vendor after completion Armored Single Mode Optical Fiber Cable, Warranty and Free Maintenance Three Years complete in all aspects	18500ft
11.	Splicing ,Testing and certification of optical fiber, complete in all aspects	80
12.	Providing/Fixing/Installing Fiber Pigtail 1.5m Single Mode 9/125, complete in all aspects	80

13.	Providing/Fixing/Installing 3 meters Single mode 9/125 Fiber Patch Cords	1
	(SC-LC), complete in all aspects	20
14.	Providing/Fixing/Installing 3 meters Single mode 9/125 Fiber Patch Cords	08
	(LC-LC), complete in all aspects	
15.	The state of the copper capit in the depth. Sand bed. Bricks cover	22800 ft.
	caution tape, Hand Hole an Pits, Landmark signs, complete in all aspects,	22000 11.
	complete in all aspects	
16.	Providing/Fixing/Punching/Testing Cat-06 48 Ports Patch Panel, complete in	10
	all aspects Brand AMP/Clipsal/3M or Equivalent	18
17.	Providing/Fixing/Installing 1" /2" or as per requirement GI/UPVC Pipes for	41300ft
	the optical Fiber in and copper cable, complete in all aspects	4130010
18.	Providing/Fixing/Installing 08 Ports Fiber Optics Enclosure, complete in all	05
	aspects Brand AMP/Clipsal/3M or Equivalent	03
19.	Providing/Fixing/Installing 32 Ports Fiber Optics Enclosure, complete in all	02
	aspects	02
	Brand AMP/Clipsal/3M or Equivalent	
20	Providing/Fixing/Installing 12U Networking cabinet, complete in all aspects	01
	<u> </u>	01
21	Providing/Fixing/Installing 24U Networking cabinet, complete in all aspects	09
22.	Providing/Fixing/Installing 1m CAT-06 Patch Cords, complete in all aspects	1000
i	Brand AMP/Clipsal/3M or Equivalent	1000
23.	Providing/Fixing/Installing 3m CAT-06 Patch Cords, complete in all aspects	1000
	Brand AMP/Clipsal/3M or Equivalent	1000
24.	Earth Grounding work (output less than 1 ohm), complete in all aspects	12

<u>Category C</u> Voice Equipment

Sno.	Item	Quantity		
25.	Providing/Fixing/Installing Voice MDF Box with Voice strips for 200 lines EPABX, complete in all aspects	01		
26.	Providing/Fixing/Installing Voice MDF Box and Voice strip for each 50 Lines each, complete in all aspects			
27.	Providing/Fixing/Installing Voice MDF Box and Voice strip for each 10 Lines, complete in all aspects			
28.	Provision Data/Voice Troubleshooting Kit, complete in all aspects, Crimping Tools, Data & Voice Punch Tools, Voice punch Dongle, Screw Driver, Nose pliers, Cutter pliers, Cable Strippers Pocket Flashlight, Cable Tester Tool, RJ-45 connectors, RJ-11 Connectors			
29. 	Providing/Fixing/Installing Latest Telephone Sets, complete in all aspects	105		

# Part No.3

Category A (IT Equipment)

no,	Item	Quantit
1.	Providing/Fixing/Installing International Branded Computer	
	Cat No. i For Computer Labs	25
	→QTY: 190	
	Intel Core i7 Processor 3.40 GHz/higher	
	4 <sup>th</sup> Generation,	
	Latest Intel Q85 Chipset Motherboard,	
	8GB DDR3 1600MHz Memory,	
	500 GB HDD SATA 7200RPM	
	SATA Super Multi DVDRW,	
	Integrated-Graphics Card+ second External 1GB Graphic Card, Sound/LAN: Integrated, PCIe WLAN card,	
	Display: 19 "inch LCD (Brand Specific), Form Factor: Tower,	
	USB Keyboard & Mouse, accessories,	
	Pre-Installed OS Licensed Antivirus Three Years Subscription	
	MUET Z. A. Bhutto bootup Logo by the Manufacturer	
	Complete in all aspects,	
	Warranty One Year	
	Brand: HP/Dell or Equivalent	
	Cat No. ii For General Usage	
	Intel Core i7 Processor 3.40 GHz/higher	
İ	4 <sup>th</sup> Generation,	
	Latest Intel Q85 Chipset Motherboard,	
:	4GB DDR3 1600MHz Memory,	
	500 GB HDD SATA 7200RPM SATA Super Multi DVDRW,	
	Integrated Graphic Card	
	Sound/LAN: Integrated, PCIe WLAN card,	
	Display: 19 "inch LCD (Brand Specific), Form Factor: Tower,	
İ	USB Keyboard & Mouse, accessories.	İ
, ,	Pre-Installed OS Licensed Antivirus Three Years Subscription	
	MUET Z. A. Bhutto bootup Logo by the Manufacturer	
1	Complete in all aspects,	
	Warranty One Year	
_	Brand: HP/Dell or Equivalent	
2.	Providing/Fixing/Installing Laptop	10
- 1		10
ı	Intel Core i7- 5th Generation Processor 2.4 GHZ Quad Core	
	Intel Core i7- 5 <sup>th</sup> Generation Processor 2.4 GHZ Quad Core 8 GB 1600MHz DDR3L 2DM 650 AN 1	
	Intel Core i7- 5th Generation Processor 2.4 GHZ Quad Core	

	WEBCAM Integrated 720p HD 650 AN 1	
	15.6 LED HD SVA AG f/CAM flat 650 AN 1	
	VGA/HGMI port	1
	Broadcom 943228 abgn 2x2 +BT 4.0 LEWW650 AN 1	
	ringerprint Reader 650 AN 1	
	6 Cell 55 WHr 650 AN I	1
	65 Watt Smart nPFC AC Adapter 650 AN 1	
	With Bag + One year warrantee.	1 1
3.	Providing/Fixing/Installing Multimedia	04
	Model Sony VPL-DW120 OR Equivalent/Latest with Tripod Projector Screen	04
	which can also be hanged on wall. Warranty one Year	
4.	Providing/Fixing/Installing Printer	17
	Model HP LaserJet PRO M401D NE BLACK PRINTER OR	17
	Equivalent/Latest with USB Cable. Warranty one Year	1
5.	Providing/Fixing/Installing Color Printer	02
	Model Epson T50 Color Printer OR HP Officeiet Pro X476dn	02
	Multifunction Printers OR Equivalent with USB Cable. Warranty one Year	
6.	Providing/Fixing/Installing Photo copy Machine	<del> </del>
	Model MP 2001 Ricoh/Equivalent/Latest	02
	Warranty one Year	
7.	Providing/Fixing/Installing Scanner	14
	Model HP Scan jet 200 Flatbed OR Equivalent/Latest	14
	Warranty one Year	
8.	Providing/Fixing/Installing UPS 1KVA Latest	26
	Output Power Capacity:1050 Watts / 1500 VA	20
1	Waveform: Type Sine wave	!
	Bypass: Built-in Bypass	
	Battery Type :Maintenance-free sealed Lead-Acid battery with suspended	
	electrolyte: leak-proof	
	Typical recharge time :3 hour(s)	
	Run Time: 30 minutes ( Approximate) on 400watts load	
	Warranty one Year Brand APC or Equivalent	

## <u>Category B</u> (Video Conferencing Facility)

 Supply & Commission/Fixing/Installing IT conferencing system for 1 room for training & use, complete with manual, accessories & application. (Video conferencing Medias) IT infrastructure.) complete in all aspects, Warranty Three Years

# VIDEO CONFERENCING SYSTEM (WITH SITTING ARRANGEMENT FOR 50-60 PARTICIPANTS)

S.No.	Specifications		
1	Video Resolution: Full HD (both 1080p @ 60 frames and 1080p @ 30 frames).		
2	HD Multisite Support: Atleast 8 (7+1) sites simultaneously.		
3	Content Frame Rate: 1080p @ 60 frames		
4	Camera Optical Zoom: 12x or above		
5	Protocols: H.323 and SIP.		
6	Video Standards: H.261, H.263, H.264 AVC, H.264 High Profile, H.264 SVC, RTV		
7	Audio Standards: G.711, G.722, G.722.1, G.729A		
8	Presentation: Should be able to show Multimedia and presentations simultaneously with the Video on single display and on two separate screens (Dual display).		
9	TCP/IP: Support IPv4 and IPv6 with atleast 2 Ethernet ports.		
10	H.323 and / or SIP atleast 6 Mbps.		
11	Content Sharing: Both People and Content over Equipment and IP.		
12	DHCP Support		
13	Video Inputs: Atleast 3 x HDMI, 1 x Component, 1 x VGA		
14	Video Outputs: Atleast 3 x HDMI, 3 x VGA		
15	Audio Inputs: Atleast 3 x 1IDMl, 2 x RCA line-in		
16	Audio Outputs: Atleast 2 x HDMl, 1 x RCA pair stereo line-out		
17	Automatic Gain Control (AGC) and noise reduction (echo Cancellation).		
18	Encryption: Advanced Encryption Standard (AES)		
19	Web based Administration using IP address with Access Security Password.		
_20	'With all relevant Extended Audio / Video wires / cables and accessories.		
21	'otal Microphone: Two (2) Qty.		
22	External DVD Recorder for Video Recording with inside Hard Disk upto 1TB capacity.		
_23	Three years warranty on all parts with free labour.		
24	1.ED 55" Screen Full HD1080p with USB2.0, HDMI port, Audio and component inputs. Sony/LG/Samsung or Equivalent with Wall Mount Kit		
25	Multimedia Projector 5300 lumens or higher Panasonic / Hitachi or Equivalent.		
26	Complete Microphone Data cabling for 60 Goose Microphones to Mixer. Complete electrical cabling (Pakistan Cable or Equivalent) from main distribution box through false ceiling, equipment Junction box.		
27	Microphone Handheld Wireless (Qty 02)		
28	Audio Mixer (Compatible with VC System) As per Requirement		
29	Audio Amplifier (Compatible with VC System)		
30	Sokears (Sony or Equivalent) (Qty 04)		
31	06 KAV Online UPS with Maintenance free dry Batteries APC/Equipment		
32	Complete Microphone Data cabling for 60 Goose Microphones to Mixer. Complete electrical cabling (Pakistan Cable or Equivalent) from main distribution box through false ceiling, equipment Junction box And Power Sockets.		
33	R sstrum ( Qty 01)		

# Part No.4

Extension of existing CCTV to newly constructed Departments.

Sno.	Item			
1.	S#	ITE	QTY	<del> </del>
	1	High Resolution 30M IR Day & Night Vision CCD indoor Box Camera upto 600 TVL with flexible lenses	23	1
	2	16 Channel Digital Video Recorder 400fps Record, Live, Playback, backup, Controller, Network, GPS	3	
	3	8 Channel Digital Video Recorder-DVR Simultaneous Octaplex function; "Record/Live Playback / Backup / Control / Remote Access/GPS	2	
	4	2 KVA UPS with Dry Batteries. Backup up to 15 Min	2	
	_5	6 U Rack with front glass door, Fan on top	5	
ļ	6	CABLE ROLLs	10	!
	7	POWER CABLES roles	5	
	8	2 TB Hard Disks	5	
1	9	Installation duct channel, & Labour Charges	1	

# Section-V Conditions of Contract

# CONDITIONS OF CONTRACT

# CC.1 GENERAL PROVISIONS

#### 1.1 Definitions:

In the Contract as defined below, the words and expressions defined shall have the following meanings assigned to them, except where the context requires otherwise.

#### The Contract

- 1.1.1 "Contract" means the Contract Agreement and the other documents listed in the Contract Data.
- 1.1.2 "Specifications" means the document as listed in the Contract Data, including Procuring Agency's requirements in respect of design to be carried out by the Contractor (if any), and any Variation to such document.
- 1.1.3 "Drawings" means the Procuring Agency's drawings of the Works as listed in the Contract Data, and any Variation to such drawings.

#### Persons

- 1.1.4 "Procuring Agency" means the person named in the Contract Data and the legal successors in title to this person, but not (except with the consent of the Contractor) any assignee.
- 1.1.5 "Contractor" means the person named in the Contract Data and the legal successors in title to this person, but not (except with the consent of the Procuring Agency) any assignee.
- 1.1.6 "Party" means either the Procuring Agency or the Contractor.

#### Dates, Times and Periods

- 1.1.7 "Commencement Date" means the date fourteen (14) days after the date the Contract comes into effect or any other date named in the Contract Data.
- 1.1.8 "Day" means a calendar day

1.1.9 "Time for Completion" means the time for completing the Works as stated in the Contract Data (or as extended under Sub-Clause 7.3), calculated from the Commencement Date.

#### **Money and Payments**

1.1.10 "Cost" means all expenditure properly incurred (or to be incurred) by the Contractor, whether on or off the Site, including overheads and similar charges but does not include any allowance for profit.

#### Other Definitions

- 1.1.11 "Contractor's Equipment" means all machinery, apparatus and other things required for the execution of the Works but does not include Materials or Plant intended to form part of the Works.
- 1.1.12 "Country" means the Islamic Republic of Pakistan.
- 1.1.13 "Procuring Agency's Risks" means those matters listed in Sub-Clause 6.1.
- 1.1.14 "Force Majeure" means an event or circumstance which makes performance of a Party's obligations illegal or impracticable and which is beyond that Party's reasonable control.
- 1.1.15 "Materials" means things of all kinds (other than Plant) to be supplied and incorporated in the Works by the Contractor.
- 1.1.16 "Plant" means the machinery and apparatus intended to form or forming part of the Works.
- 1.1.17 "Site" means the places provided by the Procuring Agency where the Works are to be executed, and any other places specified in the Contract as forming part of the Site.
- 1.1.18 "Variation" means a change which is instructed by the Engineer/Procuring Agency under Sub-Clause 10.1.
- 1.1.19 "Works" means any or all the works whether Supply, Installation, Construction etc. and design (if any) to be performed by the Contractor including temporary works and any variation thereof.

1.1.20 "Engineer" means the person notified by the Procuring Agency to act as Engineer for the purpose of the Contract and named as such in Contract Data.

#### 1.2 Interpretations

Words importing persons or parties shall include firms and organizations. Words importing singular or one gender shall include plural or the other gender where the context requires.

#### 1.3 Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. If an ambiguity or discrepancy is found in the documents, the priority of the documents shall be in accordance with the order as listed in the Contract Data..

#### 1.4 Law

The law of the Contract is the relevant Law of Islamic Republic of Pakistan.

#### 1.5 Communications

All Communications related to the Contract shall be in English language.

# 1.6 Statutory Obligations

The Contractor shall comply with the Laws of Islamic Republic of Pakistan and shall give all notices and pay all fees and other charges in respect of the Works.

# CC.2 THE PROCURING AGENCY

#### 2.1 Provision of Site

The Procuring Agency shall provide the Site and right of access thereto at the times stated in the Contract Data

Site Investigation Reports are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface

#### 2.2 Permits etc.

The Procuring Agency shall, if requested by the Contractor, assist him in applying for permits, licences or approvals which are required for the Works

# 2.3 Engineer's/Procuring Agency's Instructions.

The Contractor shall comply with all instructions given by the Procuring Agency or the Engineer, if notified by the Procuring Agency, in respect of the Works including the suspension of all or part of the works

#### 2.4 Approvals

No approval or consent or absence of comment by the Engineer/Procuring Agency shall affect the Contractor's obligations

# CC.3 ENGINEER'S/PROCURING AGENCY'S REPRESENTATIVES

#### 3.1 Authorized Person

The Procuring Agency shall appoint a duly authorized person to act for him and on his behalf for the purposes of this Contract. Such authorized person shall be duly identified in the Contract Data or otherwise notified in writing to the Contractor as soon as he is so appointed. In either case the Procuring Agency shall notify the Contractor, in writing, the precise scope of the authority of such authorized person at the time of his appointment.

# 3.2 Engineer's/Procuring Agency's Representative

The name and address of Engineer's/Procuring Agency's Representative is given in Contract Data. However the Contractor shall be notified by the Engineer/Procuring Agency, the delegated duties and authority before the Commencement of works.

## CC.4 THE CONTRACTOR

#### 4.1 General Obligations

The Contractor shall carry out the works properly and in accordance with the Contract. The Contractor shall provide all supervision, labour, Materials, Plant and Contractor's Equipment which may be required.

# 4.2 Contractor's Representative

The Contractor shall appoint a representative at site on full time basis to supervise the execution of work and to receive instructions on behalf of the Contractor but only after obtaining the consent of the Procuring Agency for such appointment which consent shall not be withheld without plausible reason(s) by the Procuring Agency. Such authorized representative may be substituted/ replaced by the Contractor at any time during the Contract Period but only after obtaining the consent of the Procuring Agency as aforesaid.

#### 4.3 Subcontracting

The Contractor shall not subcontract the whole of the works. The Contractor shall not subcontract any part of the works without the consent of the Procuring Agency.

#### 4.4 Performance Security

The Contractor shall furnish to the Procuring Agency within fourteen (14) days after receipt of Letter of Acceptance a Performance Security at the option of the bidder, in the form of Payee's order /Bank Draft or Bank Guarantee from scheduled bank for the amount and validity specified in Contract Data.

# CC.5 DESIGN BY CONTRACTOR

#### 5.1 Contractor's Design

The Contractor shall carry out design to the extent specified, as referred to in the Contract Data. The Contractor shall promptly submit to the Engineer/Procuring Agency all designs prepared by him, within fourteen (14) days of receipt the Engineer/Procuring Agency shall notify any comments or, if the design submitted is not in accordance with the Contract, shall reject it stating the reasons. The Contractor shall not construct any element of the works designed by him within fourteen (14) days after the design has been submitted to the Engineer/Procuring Agency or which has been rejected. Design that has been rejected shall be promptly amended and

resubmitted. The Contractor shall resubmit all designs commented on taking these comments into account as necessary

#### 5.2 Responsibility for Design

The Contractor shall remain responsible for his bided design and the design under this Clause, both of which shall be fit for the intended purposes defined in the Contract and he shall also remain responsible for any infringement of any patent or copyright in respect of the same. The Engineer/Procuring Agency shall be responsible for the Specifications and Drawings.

# CC.6 PROCURING AGENCY'S RISKS

# 6.1 The Procuring Agency's Risks are:-

- a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies, within the Country;
- b) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war, within the Country;
- riot, commotion or disorder by persons other than the Contractor's personnel and other employees including the personnel and employees of Sub Contractors, affecting the Site and/or the Works;
- d) ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component of such an assembly, except to the extent to which the Contractor/Sub-Contractors may be responsible for the use of any radio-active material;
- e) Pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds;

- f) use or occupation by the Procuring Agency of any part of the Works, except as may be specified in the Contract;
- g) late handing over of sites, anomalies in drawings, late delivery of designs and drawings of any part of the Works by the Procuring Agency's personnel or by others for whom the Procuring Agency is responsible;
- h) a suspension under Sub-Clause 2.3 unless it is attributable to the Contractor's failure; and
- physical obstructions or physical conditions other than climatic conditions, encountered on the Site during the performance of the Works, for which the Contractor immediately notified to the Procuring Agency and accepted by the Procuring Agency.

# CC.7 TIME FOR COMPLETION

#### 7.1 Execution of the Works

The Contractor shall commence the Works on the Commencement Date and shall proceed expeditiously and without delay and shall complete the Works, subject to Sub-Clause 7.3 below, within the Time for Completion;

#### 7.2 Programme

Within the time stated in the Contract Data, the Contractor shall submit to the Engineer/Procuring Agency a programme for the Works in the form stated in the Contract Data

#### 7.3 Extension of Time

The Contractor shall, within such time as may be reasonable under the circumstances, notify the Procuring Agency/Engineer of any event(s) falling within the scope of Sub-Clause 6.1 or 10.3 of these Conditions of Contract and request the Procuring Agency/Engineer for a reasonable extension in the time for the completion of works. Subject to the aforesaid, the Procuring Agency/Engineer shall determine such reasonable extension in the time for the completion of works as may be justified in the light of the details/particulars supplied by the Contractor in connection with the such determination by the Procuring Agency/Engineer within such period as may be

prescribed by the Procuring Agency/Engineer for the same; and the Procuring Agency may extend the time for completion as determined

#### 7.4 Late Completion

If the Contractor fails to complete the Works within the Time for Completion, the Contractor's only liability to the Procuring Agency for such failure shall be to pay the amount as liquidity damages stated in the Contract Data for each day for which he fails to complete the Works

## CC.8 TAKING OVER

#### 8.1 Completion

The Contractor may notify the Engineer/Procuring Agency when he considers that the Works are complete

### 8.2 Taking - Over Notice

Within fourteen (14) days of the receipt of the said notice of completion from the Contractor the Procuring Agency/Engineer shall either takeover the completed works and issue a Certificate of Completion to that effect or shall notify the Contractor his reasons for not taking-over the works. While issuing the Certificate of Completion as aforesaid, the Procuring Agency/Engineer may identify any outstanding items of work which the Contractor shall undertake during the Maintenances Period.

# CC.9 REMEDYING DEFECTS

#### 9.1 Remedying Defects

The Contractor shall for a period stated in the Contract Data from the date of issue of the Certificate of Completion carry out, at no cost to the Procuring Agency, repair and rectification work which is necessitated by the earlier execution of poor quality of work or use of below specifications material in the execution of Works and which is so identified by the Procuring Agency/Engineer in writing within the said period. Upon expiry of the said period, and subject to the Contractor's faithfully performing his aforesaid obligations, the Procuring Agency/Engineer shall issue a Maintenance Certificate whereupon all obligations of the Contractor under this Contract shall come to an end.

Failure to remedy any such defects or complete outstanding work within a reasonable time shall entitle the Procuring Agency to carry out all necessary worksat the Contractor's cost. However, the cost of remedying defects not attributable to the Contractor shall be valued as a Variation.

#### 9.2 Uncovering and Testing

The Engineer/Procuring Agency may give instruction as to the uncovering and/or testing of any work. Unless as a result of an uncovering and/or testing it is established that the Contractor's design, materials, plant or workmanship are not in accordance with the Contract, the Contractor shall be paid for such uncovering and/or testing as a Variation in accordance with Sub-Clause 10.2.

#### CC.10 VARIATIONS AND CLAIMS

#### 10.1 Right to Vary

The Procuring Agency/Engineer may issue Variation Order(s) in writing. Where for any reason it has not been possible for the Procuring Agency/Engineer to issue such Variations Order(s), the Contractor may confirm any verbal orders given by the Procuring Agency/Engineer in writing and if the same are not refuted/denied by the Procuring Agency/Engineer within ten (10) days of the receipt of such confirmation the same shall be deemed to be a Variation Orders for the purposes of this Sub-Clause

#### 10.2 Valuation of Variations

Variations shall be valued as follows:

- a) at a lump sum price agreed between the Parties, or
- b) where appropriate, at rates in the Contract, or
- c) in the absence of appropriate rates, the rates in the Contract shall be used as the basis for valuation, or failing which

- d) at appropriate new rates, as may be agreed or which the Engineer/Procuring Agency considers appropriate, or
- e) if the Engineer/Procuring Agency so instructs, at day work rates set out in the Contract Data for which the Contractor shall keep records of hours of labour and Contractor's Equipment, and of Materials, used.

#### 10.3 Changes in the Quantities.

- a) If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Procuring Agency/Engineer shall adjust the rate to allow for the change and will be valued as per sub clause 10.2.
- b) The Engineer shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Procuring Agency.
- c) If requested by the Engineer, the contractor shall provide the Engineer with a detailed cost breakdown of any rate in the Bill of Quantities.

#### 10.4 Early Warning

The Contractor shall notify the Engineer/Procuring Agency in writing as soon as he is aware of any circumstance which may delay or disrupt the Works, or which may give rise to a claim for additional payment.

To the extent of the Contractor's failure to notify, which results to the Engineer/Procuring Agency being unable to keep all relevant records or not taking steps to minimise any delay, disruption, or Cost, or the value of any Variation, the Contractor's entitlement to extension of the Time for Completion or additional payment shall be reduced/rejected.

#### 10.5 Valuation of Claims

If the Contractor incurs Cost as a result of any of the Procuring Agency's Risks, the Contractor shall be entitled to the amount of such Cost. If as a result of any Procuring Agency's Risk, it is necessary to change the Works, this shall be dealt with as a

Variation subject to Contractor's notification for intention of claim to the Engineer/Procuring Agency within fourteen (14) days of the occurrence of cause.

#### 10.6 Variation and Claim Procedure

The Contractor shall submit to the Engineer/Procuring Agency an itemized detailed breakdown of the value of variations and claims within twenty eight (28) days of the instruction or of the event giving rise to the claim. The Engineer/Procuring Agency shall check and if possible agree the value. In the absence of agreement, the Procuring Agency shall determine the value.

# CC.11 CONTRACT PRICE AND PAYMENT

#### 11.1 (a) Terms of Payments

The amount due to the Contractor under C&F terms or under F.O.R. Terms will be released as per C&F conditions and for F.O.R. Interim Payment Certificate issued by the Engineer pursuant to this Clause, or to any other terms of the Contract, shall, subject to Clause 11.3, be paid by the Procuring Agency to the Contractor within 30 days after such Interim Payment Certificate has been jointly verified by Procuring Agency and Contractor, or, in the case of the Final Certificate referred to in Sub Clause 11.5, within 60days after such Final Payment Certificate has been jointly verified by Procuring Agency and Contractor;

Provided that the Interim Payment shall be caused in thirty (30) days and Final Payment in 60 days in case of foreign funded project. In the event of the failure of the Procuring Agency to make payment within 90 days then Procuring Agency shall pay to the Contractor compensation at the 28 days rate of KIBOR+2% per annum in local currency and LIBOR+1% for foreign currency, upon all sums unpaid from the date by which the same should have been paid.

#### (b) Valuation of the Works

The Works shall be valued as provided for in the Contract Data, subject to Clause 10.

#### 11.2 Monthly Statements

The Contractor shall be entitled to be paid at monthly intervals:

- a) the value of the Works executed less to the cumulative amount paid previously;
   and
- b) value of secured advance on the materials and valuation of variations (if any).

The Contractor shall submit each month to the Engineer/Procuring Agency a statement showing the amounts to which he considers himself entitled.

#### 11.3 Interim Payments

Within a period not exceeding seven (07) days from the date of submission of a statement for interim payment by the Contractor, the Engineer shall verify the same and within a period not exceeding thirty (30) days from the said date of submission by the Contractor, the Procuring Agency shall pay to the Contractor the sum subject to adjustment for deduction of the advance payments and retention money.

#### 11.4 Retention

Retention money shall be paid by the Procuring Agency to the Contractor within fourteen (14) days after either the expiry of the period stated in the Contract Data, or the remedying of notified defects, or the completion of outstanding work, all as referred to in Sub-Clause 9.1, whichever is the later.

#### 11.5 Final Payment

Within twenty one (21) days from the date of issuance of the Maintenance Certificate the Contractor shall submit a final account to the Engineer to verify and the Engineer shall verify the same within fourteen (14) days from the date of submission and forward the same to the Procuring Agency together with any documentation reasonably required to enable the Procuring Agency to ascertain the final contract value.

Within sixty (60) days from the date of receipt of the verified final account from the Engineer, the Procuring Agency shall pay to the Contractor any amount due to the Contractor. While making such payment the Procuring Agency may, for reasons to be given to the Contractor in writing, withhold any part or parts of the verified amount.

#### 11.6 Currency

Payment shall be in the currency stated in the Contract Data. If F.O.R. Terms then payments will be made in Pak Rupees currency through Crossed Cheque. If C&F/CFR then payment will be made in through Letter of Credit against the Proforma Invoice provided by the Contractor.

#### CC.12 DEFAULT

#### 12.1 Defaults by Contractor

If the Contractor abandons the Works, refuses or fails to comply with a valid instruction of the Engineer/Procuring Agency or fails to proceed expeditiously and without delay, or is, despite a written complaint, in breach of the Contract, the Procuring Agency may give notice referring to this Sub-Clause and stating the default.

If the Contractor has not taken all practicable steps to remedy the default within fourteen (14) days after receipt of the Procuring Agency's notice, the Procuring Agency may by a second notice given within a further twenty one (21) days, terminate the Contract. The Contractor shall then demobilize from the Site leaving behind any Contractor's Equipment which the Procuring Agency instructs, in the second notice, to be used for the completion of the Works at the risk and cost of the Contractor.

#### 12.2 Defaults by Procuring Agency

If the Procuring Agency fails to pay in accordance with the Contract, or is, despite a written complaint, in breach of the Contract, the Contractor may give notice referring to this Sub-Clause and stating the default. If the default is not remedied within fourteen (14) days after the Procuring Agency's receipt of this notice, the Contractor may suspend the execution of all or parts of the Works.

If the default is not remedied within twenty eight (28) days after the Procuring Agency's receipt of the Contractor's notice, the Contractor may by a second notice given within a further twenty one (21) days, terminate the Contract. The Contractor shall then demobilise from the Site.

#### 12.3 Insolvency

If a Party is declared insolvent under any applicable law, the other Party may by notice terminate the Contract immediately. The Contractor shall then demobilize from the site leaving behind, in the case of the Contractor's insolvency, any Contractor's Equipment which the Procuring Agency instructs in the notice is to be used for the completion of the Works.

#### 12.4 Payment upon Termination

After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the works executed and of the Materials and Plant reasonably delivered to the site, adjusted by the following:

- a) any sums to which the Contractor is entitled under Sub-Clause 10.4,
- b) any sums to which the Procuring Agency is entitled,
- c) if the Procuring Agency has terminated under Sub-Clause 12.1 or 12.3, the Procuring Agency shall be entitled to a sum equivalent to twenty percent (20%) of the value of parts of the Works not executed at the date of the termination, and
- d) if the Contractor has terminated under Sub-Clause 12.2 or 12.3, the Contractor shall be entitled to the cost of his demobilisation together with a sum equivalent to ten percent (10%) of the value of parts of the works not executed at the date of termination.

The net balance due shall be paid or repaid within twenty eight (28) days of the notice of termination.

#### CC.13 RISKS AND RESPONSIBILITIES

#### 13.1 Contractor's Care of the Works

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Subject to Sub-Clause 9.1, the Contractor shall take full responsibility for the care of the Works from the Commencement Date until the date of the Procuring Agency's/Engineer's issuance of Certificate of Completion under Sub-Clause 8.2. Responsibility shall then pass to the Procuring Agency. If any loss or damage happens to the Works during the above period, the Contractor shall rectify such loss or damage so that the Works conform with the Contract.

Unless the loss or damage happens as a result of any of the Procuring Agency's Risks, the Contractor shall indemnify the Procuring Agency, or his agents against all claims loss, damage and expense arising out of the Works.

#### 13.2 Force Majeure

If Force Majeure occurs, the Contractor shall notify the Engineer/Procuring Agency immediately. If necessary, the Contractor may suspend the execution of the Works and, to the extent agreed with the Procuring Agency demobilize the Contractor's Equipment.

If the event continues for a period of eighty four (84) days, either Party may then give notice of termination which shall take effect twenty eight (28) days after the giving of the notice.

After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the Materials and Plant reasonably delivered to the Site, adjusted by the following:

- a) any sums to which the Contractor is entitled under Sub-Clause 10.4,
- b) the cost of his demobilization, and
- c) less any sums to which the Procuring Agency is entitled.

The net balance due shall be paid or repaid within thirty five (35) days of the notice of termination.

#### 14. INSURANCE

#### 14.1 Arrangements

The Contractor shall, prior to commencing the Works, effect insurances of the types, in the amounts and naming as insured the persons stipulated in the Contract Data except for items (a) to (e) and (i) of the Procuring Agency's Risks under SubClause

6.1. The policies shall be issued by insurers and in terms approved by the Procuring Agency. The Contractor shall provide the Engineer/Procuring Agency with evidence that any required policy is in force and that the premiums have been paid.

#### 14.2 Default

If the Contractor fails to effect or keep in force any of the insurances referred to in the previous Sub-Clause, or fails to provide satisfactory evidence, policies or receipts, the Procuring Agency may, without prejudice to any other right or

# CC.1 GENERAL PROVISIONS

#### 1.1 Definitions:

In the Contract as defined below, the words and expressions defined shall have the following meanings assigned to them, except where the context requires otherwise.

#### The Contract

- 1.1.1 "Contract" means the Contract Agreement and the other documents listed in the Contract Data.
- 1.2 Interpretation
- 1.3 Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. If an ambiguity or discrepancy is found in the documents, the priority of the documents shall be in accordance with the order as listed in the Contract Data.