

STANDARD BIDDING DOCUMENT (SBD)



GOVERNMENT OF SINDH SHAHEED MOHTARMA BENAZIR BHUTTO INSTITUTE OF TRAUMA, KARACHI

TENDER FEE:	Rs. 5,000/- (Non-Refundable) (In Shape of Pay Order in favor of Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi)
TENDER TITLE:	Operation, Running, Repair & Maintenance of Electrical Works, Power Generation, Heating, Ventilation, And Air Conditioning (HVAC), Building Management System (BMS), Building Maintenance Civil, Plumbing, RO, Electrical & Gas Boiler.
TENDER REFERENCE #	PROC/SMBBIT/(R&M-04)/2022-23
BID PROCEDURE:	46(1) Single Stage One Envelope (Complete in Single Package)

Note:

1. No tender will be accepted after closing of tender box.
2. All the participants must sign each & every page of bid documents; else offer will be rejected.

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BIDDING DATA SHEET

The following specific data for the Works / Services / Goods to be procured shall complement, supplement, or amend the provisions in the terms & conditions of the bidding documents. Whenever there is a conflict, the provisions herein shall prevail over those in terms & conditions of the bidding documents.

1	Name of Procuring Agency:	Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi.
2	Brief Description of Works:	Operation, Running, Repair & Maintenance of Electrical Works, Power Generation, Heating, Ventilation, and Air Conditioning (HVAC), Building Management System (BMS), Building Maintenance Civil, Plumbing, RO, & Electrical & Gas Boiler.
3	Procuring Agency's address:	Chief Operating Officer, SMBB Institute of Trauma Chand Bibi Road Karachi.
4	Amount of Bid Security:	5% amount in Shape of Pay Order in favor of SMBB Institute of Trauma, Karachi issued by a scheduled bank in Pakistan.
5	Amount of Performing Security	10% of the Total Contract price.
6	Period of Bid Validity (days):	90 Days
7	Venue, Time, and Date of Bid Opening:	As notified in NIT
8	Deadline for Submission of Bids along with time:	As notified in NIT
9	Currency of Bid.	Pakistani Rupees
10	Language of Bid	English
11	Bidding Procedure	Single Stage One Envelope Procedure/ SPP Rule 46(1) (Complete in Single Package)
12	Tender Document Purchase	Planning & Procurement Department at 13th Floor of SMBB Institute of Trauma, Karachi.
13	Time of Completion of Works	<u>The contract is for one year starting from the date of agreement and extendable for further two years on yearly basis, after the approval from Competent Authority – of SMBB Institute of Trauma, Karachi.</u>

Signature of Contractor
/authorized representative
Seal of Firm

INSTRUCTIONS TO BIDDERS

- 1. Shaheed Benazir Bhutto Institute of Trauma** invites sealed bids on **Single Stage One Envelope Systems 46(1)** as per Sindh Public Procurement Rules 2010, (Amended till date) from service providers for “**Operation, Running, Repair & Maintenance of Electrical Works, Power Generation, Heating, Ventilation, and Air Conditioning (HVAC), Building Management System (BMS), Building Maintenance Civil, Plumbing, RO, & Electrical & Gas Boiler**” Tender Reference No: **PROC/SMBBIT/(R&M-04)/2022-23**.
2. The tender shall be submitted with all documents in sealed envelope. The envelope must contain tender inquiry Number on the top, the name of the Bidder should be affixed on the face of the envelope. Envelope should be sealed and addressed to **Planning & Procurement Department 13th Floor at Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi** and inserted in Tender box by hand or mail on the scheduled date and time, else tender will not be entertained and would be returned unopened to the bidders.
3. Bidders are required to check that Tender Documents issued to them are complete in all respects as per table of content.
4. Bidders should examine carefully the table of content. They should visit and inspect the site at their own expense, responsibility and obtain all necessary information prior to submitting the tender. Any detail/specification missing in the document should be obtained from **Planning & Procurement Department 13th Floor at Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi** before bidding. Once the tender is submitted, it will be assumed that no further clarification was required.
5. Tender Fee in shape of pay order in favor of **Shaheed Mohtarma Benazir Bhutto Institute of Trauma (SMBBIT), Karachi** must be attached; else the offer will be rejected.
6. Bidder will attach **BID SECURITY** (as per amount mentioned in Bidding Data Sheet) in shape of pay order issued from any scheduled Bank of Pakistan in favor of **Shaheed Mohtarma Benazir Bhutto Institute of Trauma (SMBBIT), Karachi**.
7. The original bid shall be typed or written in indelible ink by the bidder or person duly authorized. The person or persons signing and stamped the bid shall initial all pages of the bid. The name and designation of each person signing must be mentioned below the signature.
8. The Bidder shall indicate on the appropriate Price Schedule (in PKR) the units (where applicable) and total bid price of the goods/services it proposes to supply/execute under the contract.
9. No bidder shall be allowed to alter or modify his bid after the bids have been opened. However, the Procuring Agency may seek and accept clarification to the bids that do not change substances of the bids.

10. The Procuring Agency may reject all or any bid or proposal at any time prior to the acceptance of a bid or proposal. Subject to relevant provision of SPPRA Rules, 2010 (Amended till Date). The Procuring Agency upon request communicate to bidder who submitted a bid or proposal, the grounds for its rejection of all bids or proposal, but is not required to justify those grounds.
11. The quoted rates should include all costs of whatsoever description and expenses necessary for the whole work together with all risks, taxes, liabilities and obligations, specific or implied, in the Tender Documents. Arithmetical errors, if any shall be corrected and Tender price amended accordingly.
12. Bidders shall provide evidence of their eligibility as and when requested by the Procuring Agency.
13. The site can be visited on any working day during the office hours.
14. The Competent Authority reserves the right to reject any or all the tenders, increase or decrease the scope of work in accordance with the prevailing SPPRA Rules.
15. That the Contractor shall be responsible to keep in good condition the premises of the Hospital and shall not damage any property, in case of any loss damage caused by the contractors or its employee to any property of the compensate and or indemnify the Hospital or the staff as the case may be.
16. **Clarification of Bidding Documents**
 - a) A prospective bidder requiring any clarification(s) in respect of the Bidding Document may notify the Engineer/Employer at the Employer's/Engineer's address indicated in the Bidding Data.
 - b) The Engineer/Employer will respond to any request for clarification which it receives earlier than five (05) days prior to the deadline for the submission of Bids. Copies of the Engineer/Employer's response will be forwarded to all prospective bidders, who have received the Bidding Documents including a description of the enquiry but without identifying its source.
17. **Amendment of Bidding Documents**
 - a) At any time prior to the deadline for submission of Bids, the Employer may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective bidder, modify the Bidding Documents by issuing addendum.
 - b) Any addendum thus issued shall be part of the Bidding Documents pursuant to Sub-Clause, 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 Employer.
18. No unauthorized alteration may be made in the Tender documents. If any such alteration is made, tender may be liable for rejection.
19. The vendor has to quote only one rate for each work as per tender specifications. Hand written tenders or any over writing, cutting, should be signed.

20. The entire Tender Documents, listed duly priced, signed & stamped on each page and completed must reach at designated place in due time and dates as defined in the Bidding Data of the Tender.
21. Contractors who win the tender will be required to enter into a Contract Agreement as defined in the Form of Agreement.
22. No bidder shall contact the Procuring agency on any matter relating to its bid, from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Procuring agency, it should do so in writing.
23. The bid security will be forfeited to the Government, if the bidder withdraws his bid after opening and before the expiry of the bid validity period or fails to sign the contract in stipulated time if the bid is accepted.
24. Conditional tender and tender without bid security shall not be considered.
25. Bids shall remain valid for a period of 90 days after the date of bid opening and same may be extended in terms of Rule 38 (2) (3) (4) of SPPRA Rules.
26. Bids submitted late due to any reason whatsoever, shall not be considered and returned unopened to the bidder or his authorized representative.
27. Bid / offer will be evaluated as per criteria for evaluation of bid's terms & conditions.
28. **The quoted rates once offered by the firms will not be changed during the contract period.**
29. The tendered rate should be inclusive of all applicable taxes to Federal & Provincial Govt. or local bodies and will be deducted from the bill of the contractors / suppliers.
30. **All the (applicable) Government taxes (Income Tax / Sindh Sales Tax (if applicable) / 0.35% Stamp Duty of the value of the contract amount will be affixed on the bills or on the contract agreement of the full contract value by the Contractors / Suppliers.**
31. **All documents should be submitted duly paginated / flagged and the detailed of the documents should also be mentioned in front of the Index, else Procurement Committee reserves the right to accept or reject bid.**
32. **Technical Evaluation:** It will be examined in detail of the Works offered by the bidder complies with the Technical Provisions of the Bidding Documents. For this purpose, the bidder's data submitted with the bid in B.O.Q. to Bid will be compared with technical features/criteria of the Works detailed in the Technical Provisions. Other technical information submitted with the bid regarding the Scope of Work will also be reviewed.
33. **Financial Evaluation:** It will be examined in detail whether the bids comply with the Financial /contractual conditions of the Bidding Documents. It is expected that no material deviation/stipulation shall be taken by the bidders.

TERMS & CONDITIONS OF TENDER

1. Taxes will be deducted from the contractor's bill as imposed by the Government from time to time as well as Contractor will pay all the Government Institution's Contribution by himself.
2. **PERFORMANCE SECURITY:** The successful bidders will have to deposit the requisite Performance Security Bond in the shape of a Pay Order / Demand Draft or Bank Guarantee as per amount mentioned under Bidding Data in favor of **Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi**. The same will be released after successful completion of contract period. Moreover, security deposit shall be forfeited by the Procuring Agency if contractor fails to comply with terms and condition of the contract at any stage during contract period.
3. Contractor will not be allowed to participate in any Political / Immoral / Illegal activities in the premises of **Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi**.
4. Contractor will not be allowed to sublet the contract except defined specifically otherwise.
5. The Procuring agency reserves the right at the time of contract award to decrease, the items / quantities of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.
6. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If the bidder does not accept the correction of the errors, its bid will be rejected, and its bid security may be forfeited.
7. In case of any dispute contractor will approach the **Chief Operating Officer Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi**. The decision of the **Chief Operating Officer Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi**, will be final.
8. In case of any dispute, decision of the **Chief Operating Officer Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi** shall be final and contractor will not challenge the decision in the Court of Law.
9. The **Chief Operating Officer Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi** has the right to cancel the contract at any stage and without issuing any prior notice in case of violation of **Agreement / ToR** is proved as well as damages to the prestige or property of **Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi**.

10. Contractor will be responsible for any theft or pilferage committed by any of his employees. The employee will be liable to punishment under the rules.
11. In case of breach of the contract by the contractor, contract will be forfeited partly or fully as decided by the **Chief Operating Officer Shaheed Mohtarma Benazir Bhutto Institute of Trauma**, Karachi.
12. Any condition / clause of the Contract can be included / amended if required in the interest of the **Shaheed Mohtarma Benazir Bhutto Institute of Trauma**, Karachi with the mutual understanding of both parties.
13. Contractor shall have its own equipment required for Maintenance etc. Equipment must be approved by the Authorized Officer of **Shaheed Mohtarma Benazir Bhutto Institute of Trauma**, Karachi before commencement of contract.
14. The Contractor should not violate or allow his Staff to violate the rules of the Sindh Government.
15. In case of violation of any rule the contractor may be fined and legal action will be initiated against him.
16. Contractor shall be responsible for his staff.
17. The Contract is for one year starting from the date of agreement and extendable for further two years on yearly basis, after the approval from Competent Authority – **Chief Operating Officer Shaheed Mohtarma Benazir Bhutto Institute of Trauma**, Karachi.
18. Document(s) for Evaluation of Maintenance Services must be paged / flagged by the bidders.
19. Payment will be made on monthly basis subject to satisfactory report from concerned offices or through an inspection committee.
20. Bid / offer will be evaluated as per criteria and the bid's terms & conditions.
21. Bid should be inclusive of all Government taxes (if applicable) and the same will be paid by the Contractor except withholding tax.
22. Stamp duty should be placed on contract agreement (as per the govt. approved rate) on stamp paper of value (Rs.100).

23. Procurement Committee shall disqualify a contractor, whether pre-qualified or not, if it finds at any time, that the information submitted by him concerning his qualification and professional, technical, financial, legal, or managerial competence as contractor; was false and materially inaccurate or incomplete at any stage.
24. 20% of the due Sindh Sales Tax (if applicable) will be deducted from the bill of the Contractors / Suppliers while remaining 80% will be deposited by the Contractors / Suppliers themselves.
25. Conditional tender and tender without bid security shall not be considered.
26. GST / Income Tax & SRB Certificates must be accompanied with tender.
27. The Procuring Agency may reject all or any bid at any time prior to the acceptance of a bid or proposals, subject to the relevant provision of SPP Rules, 2010 (Amended till date)
28. No tender will be entertained without bid security. The bid security will be forfeited to Government Treasury, in case of non-submission of performance security within seven (7) Days of receipt of the Letter of Acceptance.
29. If the contractor fails to give services within the stipulated period, liquidity charges will be imposed.
30. The Bidder shall sign and stamp the Integrity Pact provided at Bid in the Bidding Document for all Provincial Government procurement contracts exceeding Rupees 10 million in case of goods and 2.5 million in case of services. Failure to sign such Integrity Pact shall make the bidder non-responsive.
31. If the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Procuring agency shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in Bidding Data of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in Bidding Data. Once the maximum is reached, the Procuring agency may consider termination of the Contract.

I / We agree to above mentioned terms & conditions:

Name of Contractor _____ Signature _____

CNIC# _____ (Copy must be attached)

Full Address _____

Rubber Stamp _____

(ANNEXURE-A)

BID EVALUATION CRITERIA MANDATORY

S.#	MANDATORY REQUIREMENTS	YES	NO
01.	Compliance of Terms & Conditions / Instructions mentioned in the SBD. 1. Attached authorized person CNIC copy. 2. Signed & stamped each and every page of Terms & Condition & all bidding documents. (If above points compliance not found offer will be rejected).		
03.	Copy of Valid Registration P.E.C. Certificate Category C-5 or above with following Codes: 1. BC-02 (Restoration and Conservation) 2. ME-01 (Heating, Ventilation, Air Conditioning) 3. ME-06 (Heat Recovery System, Chiller for power generation & Specialized Plant) 4. EE-03 (Building Automation System & Energy Generation System) 5. EE-06 (Specialized Lighting System) 6. ME-02 (Fire Prevention and Protection System) 7. CE-09 (Sewerage Works, Water Supply) 8. CE-10 (General Building and Maintenance) No joint venture accepted in terms of above mention P.E.C licenses codes.		
04.	Should have valid Electrical License issued by the Government of Sindh (Attested copy of license must be attached)		
05.	Registration copy of Active Sindh Sales Tax / Sindh Board of Revenue.		
06.	Should be registered with Income Tax Department (Valid / Active NTN Certificate must be attached).		
07.	Valid Copy of Professional Tax 2021-22 (Copy of certificate must be attached).		
08.	Income Tax returns Minimum for Last three (03) years		
09.	Recent Bank Certificate / Bank Statement regarding financial soundness of the firm to do Business up till PKR 100 Million in last one year.		
10.	Submission of undertaking on legal valid and attested stamp paper that the firm is not blacklisted and litigated by any institute of Federal, Provincial Government or any Department / Agency / Organization / autonomous body or Private Sector Organization anywhere in Pakistan (As per attached sample).		
11.	Bidder already providing same services at SMBB-IT should obtain & attach a satisfactory Performance certificate from competent authority. (For the financial year in which the bidder last provided its services).		
12.	Pay order / Bank Draft of Bid security / Earnest money should be attached along with bid document.		
13.	Comprehensive Maintenance Service Plan for each category (Activities to be performed on daily / weekly / monthly basis (floor wise, where applicable))		
14.	List of machinery/equipment/tools (Relevant to the scope of work) which will be utilized by the Contractor to carry out desired operations		

Note: Bidders NOT complying with any of the above eligibility pre-requisites would be disqualified. All documentary evidence must be submitted along with the bids; no document will be acceptable after bid submission.

(ANNEXURE-B)

BID EVALUATION CRITERIA MARKING

1. The following merit point system for weighing evaluation factors / criteria.
2. Bidders achieving minimum 70% points / marks will be considered only for further process besides compliance of all mandatory clauses. Documentary evidence must be attached in support of your claim.

S#	Description	Max Marks	Individual Marks	Marks Obtain
A) GENERAL EXPERIENCE				
1	Projects of similar nature and complexity Completed in last ten years.	35	15	
1.1	Completed at least 5 Projects of Similar Nature in last ten years. each project 3 marks			
2	Projects of similar nature and complexity in-hand during last ten years.		10	
2.1	In Hand at least 2 Projects of Similar Nature each project 5 marks			
3	Maintenance works Projects carried out during last five years.		5	
3.1	Completed / In Hand at least 5 Projects of Similar Nature in last five years. for each project 1 marks			
4	Enlistment / Pre-qualification record with Government Organizations & other agencies		5	
4.1	Enlistment / Pre-qualification of five different Government Organizations & other agencies for each enlistment 1 marks			
	Total Marks		35	
B) PERSONNEL CAPABILITIES				
5	Associates Engineers (DAE) Civil	15	5	
5.1	Experience: if the individual experience of at least Associates Engineers (DAE) Civil is equal to 6 years or above in similar nature works. for each 2.5 marks			
6	Associates Engineers (DAE) Electrical		5	
6.1	Experience: if the individual experience of at least Associates Engineers (DAE) Electrical is equal to 6 years or above in similar nature works. for each 2.5 marks			

S#	Description	Max Marks	Individual Marks	Marks Obtain
7	Associates Engineers (DAE) Mechanical			
7.1	Experience: if the individual experience of at least Associates Engineers (DAE) Mechanical is equal to 6 years or above in similar nature works. for each 2.5 marks		5	
	Total Marks		15	
C) EQUIPMENT CAPABILITY				
7.1	Pickup Vehicle for transportation of material for each 1 Mark	20	2	
7.2	Hilti Machine		1	
7.3	Plate Compactor for each 1 Mark		2	
7.4	Wheel barrow (Trolley) with Wooden Planks		1	
7.5	Wooden Ladders with Planks for Internal Scaffolding		2	
7.6	Aluminum Ladders		1	
7.7	Diesel Water Pumps for Pumping out Water 3" Dia or more		1	
7.8	Power Generator 20Kva		2	
7.9	Electrical Works Tools		2	
7.10	HVAC Works Tools		2	
7.11	BIMS Works Tools		2	
7.12	Plumbing Works Tools		2	
	Total Marks		20	
D) FINANCIAL SOUNDNESS				
8.1	Available Bank Credit Line Bank Credit Line limit (Full Marks for 50 Million)	30	5	
8.2	Working Capital in last 3 years Available average working capital for last three years (Full Marks for 100 Million)		5	
8.3	Registration with income tax department, EOBI & SSES		6	
8.4	Copy of Valid electrical license		4	
8.5	Affidavit on Judicial Stamp Paper Non-Litigation History in which Decision has been given against the firm(s)		5	

S#	Description	Max Marks	Individual Marks	Marks Obtain
8.6	Affidavit on Judicial Stamp Paper of Non-Blacklisting from any agency		5	
	Total Marks		30	
TOTAL MARKS			100	

LETTER OF BID TECHNICAL PROPOSAL

[Location, Date]

To,
Chairman Procurement Committee of SMBBIT,
Karachi.

Dear Sir / Madam,

We, the undersigned, offer to provide **the (insert title of assignment)** in accordance with your NIT / Tender Document No. **(Insert number)** dated **(insert date)** and our Proposal. We are hereby submitting our Proposal, which includes the Technical and Financial Bids sealed in one envelope.

Having examined the bidding documents including Addenda / Corrigendum Nos.**[insert numbers & Date of individual Addendum / Corrigendum]**, the receipt of which is hereby acknowledged, we, the undersigned, offer to supply and deliver the WORKS / SERVICES / GOODS under the above-named Contract in full conformity with the said bidding documents and at the rates/unit prices described in the price schedule or such other sums as may be determined in accordance with the terms and conditions of the Contract. The amounts are in accordance with the Price Schedules attached herewith and are made part of this bid. We undertake, we have no reservation to these Bidding Documents.

We undertake, if our bid is accepted, to deliver the Works / Services / Goods in accordance with the delivery schedule specified in the schedule of requirements. If our bid is accepted, we undertake to provide a performance security/guaranty in the form, in the amounts, and within the times specified in the bidding documents. We agree to abide by this bid, for the Bid Validity Period specified in the Bid Document and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period. Until the formal final Contract is prepared and executed between us, this bid, together with your written acceptance of the bid and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive, not to give any reason for rejection of any bid and that you will not defray any expenses incurred by us in bidding. We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in Pakistan. We confirm that we comply with the eligibility requirements of the bidding documents.

We also confirm that the any Government organization (Federal / Provincial / Local) has not declared us, or any, ineligible on charges of engaging in corrupt, fraudulent, collusive or coercive practices. We furthermore, pledge not to indulge in such practices in competing for or in executing the Contract, and we are aware of the relevant provisions of the Proposal Document.

We understand you are not bound to accept any Proposal you receive.

Authorized Signature [In full and initials]:
Name and Title of Authorized Signatory:
Name of Bidder:

Stamp / Seal:

LETTER OF BID FINANCIAL PROPOSAL

[Location, Date]

To,
Chairman Procurement Committee of SMBBIT,
Karachi.

Dear Sir / Madam,

We, the undersigned, offer to provide the _____ (Insert title of assignment) _____ in accordance with your Tender Document No. _____ (Insert number) _____ dated _____ (insert date) _____ and our Technical Proposal. Our attached Financial Proposal is for the sum of _____ (insert amount in words and figures) _____. This amount is inclusive of all taxes, duties, levies, Cess, Octroi etc.

Our Financial Proposal shall be binding upon us up to expiration of the validity period of the Proposal.

No commissions or gratuities have been or are to be paid by us to agents relating to this Bid / Proposal and Contract execution.

We also declare that the any Government organization (Federal / Provincial / Local) has not declared us or any Sub-Contractors for any part of the Contract, ineligible on charges of engaging in corrupt, fraudulent, collusive, or coercive practices. We furthermore, pledge not to indulge in such practices in competing for or in executing the Contract, and are aware of the relevant provisions of the Proposal Document.

We understand you are not bound to accept any Proposal you receive.

Authorized Signature [In full and initials]:

Name and Title of Authorized Signatory:

Name of Bidder:

Stamp / Seal:

AFFIDAVIT (on Judicial Stamp Paper)

1. I/We, the undersigned [Name of the Supplier] hereby solemnly declare and undertake that:
2. I/We have read the contents of the Bidding Document and have fully understood it.
3. The Bid being submitted by the undersigned complies with the requirements enunciated in the bidding documents.
4. The Goods that we propose to supply under this contract are eligible goods within the meaning of this SBD.
5. The undersigned are also eligible Bidders within the meaning of the Standard Bidding Documents.
6. The undersigned are solvent and competent to undertake the subject contract under the Laws of Pakistan.
7. I/We have not paid nor have agreed to pay, any Commissions or Gratuities to any official or agent for SMBB Institute of Trauma related to this Bid or Award or Contract.
8. I/We are not blacklisted or facing debarment from any institute of Federal, Provincial Government or any Department /Agency/Organization/Autonomous body or Private Sector organization anywhere in Pakistan.
9. That undersigned has not employed any child labor in the organization/unit.
10. I/We understand that the Selection and Rate Contracting Committee of the Procuring Agency is not bound to accept the lowest or any other bid they may receive.
11. I/We affirm that the contents of this affidavit are correct to the best of our knowledge and belief.

Signatures with stamp

Name: _____

Designation: _____

CNIC No. _____ **(Copy must be attached)**

For Messrs. [Name of Supplier]

CONTRACT AGREEMENT

Tender Title

This Contract Agreement (hereinafter called the Agreement) made on ___ day of _____Year.

BETWEEN

M/s.

A Contractor, having its office at **Bidder's address**. (Hereinafter mentioned as Contractor), which expression shall be deemed to mean and include its successors-in-interest and permitted assigns;

AND

SHAHEED MOHTARMA BENAZIR BHUTTO ISTITUTE OF TRAUMA A department under Government of Sindh, having its office at SMBBIT, Chand Bibi Road, Karachi Sindh, Pakistan hereinafter mentioned as "the Client", which expression shall be deemed to mean and include its successors-in-interest and permitted assigns;

WHEREAS the Contractor has agreed to render certain services i.e. "Tender Title" to SMBBIT Karachi and has necessary know how and staff in the respect.

AND

WHEREAS the Client is desirous of availing the services offered by the contractor for "Tender Title" for its premises at the cost of Rs. _____/- (The contract amount) as per below mentioned BOQ.

Brief particulars of the services which shall be supplied / provided by the Supplier are as under:

Item. #	DESCRIPTION	Unit Quantity	Unit	Quoted Rate

Now this agreement witnesseth as follows:

1. In this agreement words and expression shall have the same meanings as are respectively assigned to them in the Terms & Conditions of Tender Enquiry referred to.
2. The Following documents after incorporating addenda, if any except these parts relating to Instruction to bidders, shall be deemed to form and be read and constructed as part of this Agreement, viz:
 - a. Purchase order(s)/ Letter of Acceptance where applicable.
 - b. The completed Form of Bid along with Schedules to Bid.
 - c. Condition of Contract & Contract Data
 - d. The priced Scheduled of prices
 - e. The specifications

3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to execute and complete the Works and remedy defects therein in conformity and in all respects within the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
5. The Contract Price of tender will be Rs: _____/Year;
6. That estimated cost of tender is on approximate basis and may vary in case of forced majeure or as per the demand of situation.

IN WITNESS WHEREOF the parties hereto have caused this Contract Agreement in accordance with their respective hands and seals, the day, month and the year first above written.

This contract will be extendible on the same rates till the allocation of new tender.

Signature of the Supplier

Signature of the Purchaser

(Seal)

(Seal)

Signed, Sealed and Delivered in the presence of:

Witness:

Witness:

(Name, Title and Address)

(Name, Title and Address)

FORM OF PERFORMANCE SECURITY (Bank Guarantee)

Guarantee No.: _____
Executed on: _____
Expiry date: _____

[Letter by the Guarantor to the Employer]

Name of Guarantor (Bank) with complete address (Scheduled Bank in Pakistan):

Name of Principal (Contractor, Manufacturer, Supplier or any bidder) with complete address:

Penal Sum of Security (express in words and figures):

Letter of Acceptance No. _____ Dated: _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the are of the said Principal we, the Guarantor above named, are held and firmly bound unto the Chief Operating Officer (COO), SMBBIT, Karachi (hereinafter called the Employer) in the penal sum of the amount stated above for the payment of which sum well and truly to be made to the said Employer, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has accepted the Employer's above said Letter of Acceptance for _____ (Name of Contract) for the _____ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents- during the original terms of the said Documents and any extensions thereof that may be granted by the Employer, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Condition of Contract are fulfilled.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We, _____ (the Guarantor), waiving all objections and defences under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer without delay upon the Employer's first written demand without cavil or arguments and without requiring the Employer to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Employer's _____ written _____ declaration that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to Employer's designated Bank & Account Number.

PROVIDED ALSO THAT the Employer shall be the sole and final judge for deciding whether the Principal (Contractor) has duly performed his obligations under the Contractor has defaulted in fulfilling said obligations and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Employer forthwith and without any reference to the Principal or any other person.

IN WITNESS WHEREOF, the above-bounden Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Witness:

Guarantor (Bank)

1. _____
(Name, Title, Signature & Seal)

Signature:

2. _____
(Name, Title, Signature & Seal)

Name: _____
Title: _____

INTEGRITY PACT

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC PAYABLE BY THE SUPPLIERS/CONTRACTORS/CONSULTANTS

Contract Number: NO.

Dated:

Contract Value: Rs.

Contract Title:

M/s. _____ hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoS) through any corrupt business practice.

Without limiting the generality of the foregoing, M/s. _____ represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit, in whatsoever form, SMBBIT Karachi (PA), except that which has been expressly declared pursuant hereto.

M/s. _____ certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with PA and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

M/s. _____ accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to PA under any law, contract or other instrument, be voidable at the option of PA.

Notwithstanding any rights and remedies exercised by PA in this regard, M/s. _____ agrees to indemnify PA for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to PA in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by

M/s. _____ as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit, in whatsoever form, from PA.

M/s. _____

Chief Operating Officer/DDO

GRAND SUMMARY FINANCIAL

Name	Payment Frequency	Cost	Total Cost (PKR/annum)
Manpower Cost	Monthly		
Annual HT Maintenance Cost	Yearly		
Annual Transformer Maintenance Cost	Yearly		
Quarterly Diesel Generators Servicing Cost	Quarterly		
Quarterly Gas Generators Servicing Cost	Quarterly		
Annual Diesel Generators Maintenance Cost	Yearly		
Annual Gas Generators Maintenance Cost	Yearly		
Air & Water Balancing charges of HVAC	Annual		
Monthly Open / Close Circuit Chemical charges Chillers	Monthly		
Annual maintenance of charges Chiller (Shaungling)	Annual		
Annual maintenance charges of Chiller (Kawasaki)	Annual		
Annual maintenance charges of cooling tower with all parts, consumables and accessories	Annual		
OEM consultancy charges of shaungling chillers	Quarterly		
OEM consultancy charges of Kawasaki chillers	Quarterly		
OEM consultancy charges of BMS	Quarterly		
Chiller dosing of chemical as per consultant recommendation charges	As per need		
Boiler Consumables	Monthly		
R.O Consumables	Monthly		
Boiler Annual Maintenance	Annual		
Total			

All costs will be billed after verification of work.

****Payment of Non-Functional Equipment / Machinery will start after it functional.**

Escalation Price	
2nd Year	10%
3rd Year	10%

As required, following pay order/demand draft is enclosed on account of Bid Security:

No: _____, Dated: _____ drawn on _____

Bank _____, Branch _____

Signature of Contractor / Supplier:

Name of Firm with full Address:

Email Address: _____

Phone: Off. _____

Fax: _____

Mobile: _____

SCOPE OF WORK / SCHEDULE OF REQUIREMENTS
OPERATION, RUNNING, REPAIR & MAINTENANCE OF
ELECTRICAL WORKS& POWER GENERATION, HEATING,
VENTILATION, AND AIR CONDITIONING (HVAC)& BUILDING
MANAGEMENT SYSTEM (BMS),BUILDING MAINTENANCE CIVIL,
PLUMBING, RO, ELECTRICAL & GAS BOILER.

S.#	Position	Qty.	Qualification	Experience
Shift Incharges / Supervisors				
1	Shift Incharges / Supervisors (On Call 24x7 basis)	3	B.Tech / DAE in Mechanical	5/8 years of relevant experience.
Technicians				
1	Power Controlling Technician	2	DAE (Electrical)	3/5 years of relevant experience.
2	Electrical Technician	7	DAE (Electrical)	3/5 years of relevant experience.
3	Associate Electrical Technician	7	SSC / DAE (Electrical)	3/5 years of relevant experience.
4	Mechanical Technician	2	SSC / DAE (Mechanical)	3/5 years of relevant experience.
5	Associate Mechanical Technician	1	Middle / SSC	2/3 years of relevant experience
6	AC Technician	7	D.A.E Mechanical / A.C Refrigeration	3/5 years of relevant experience.
7	BMS Technicians	5	DAE in Electronics / Mechanical	3/5 years of relevant experience.
8	Technician for AHU, FCU, PUMPS	7	Middle / SSC	3/5 years of relevant experience.
9	Diesel & Gas Generator Technician	3	SSC / DAE (Mechanical)	Min. 5 years of relevant experience.
10	Associate Diesel & Gas Generator Technician	2	Middle / SSC	Min. 3 years of relevant experience.
11	Split AC & VRV Chillers Technician	1	D.A.E Mechanical / A.C Refrigeration	5/8 years of relevant experience.
12	Winder upto 5hp cum Electrician	1	Middle / SSC	5/8 years of relevant experience.
Operators				
1	Chiller Operator	7	D.A.E Mechanical / AC Refrigeration	5/8 years of relevant experience.
3	Diesel & Gas Generator Operator	2	Middle / SSC	2/3 years of relevant experience.

S.#	Position	Qty.	Qualification	Experience
4	BMS Operator	4	SSC / HSC	3/5 years of relevant experience.
5	Pump Operator	4	Middle / SSC	3/5 years of relevant experience
6	Boiler Operator	2	Middle / SSC	1 st class boiler attendant license with 5/8 years of relevant experience
7	R.O Operator	2	Middle / SSC	3/5 years of relevant experience
General Workers:				
1	Duct Man	1	Middle / SSC	5/8 years of relevant experience.
2	General Fitter	1	Middle / SSC	5/8 years of relevant experience.
3	Welder	1	Middle / SSC	5/8 years of relevant experience.
4	Carpenter	1	Middle / SSC	5/8 years of relevant experience.
5	Aluminum & Glass Worker	1	Literate / Middle	3/5 years of relevant experience
6	Furniture Polisher	1	Literate / Middle	3/5 years of relevant experience
7	False Ceiling Worker	1	Literate / Middle	3/5 years of relevant experience
8	Mason	1	Literate / Middle	3/5 years of relevant experience
9	Plumber	4	Literate / Middle	3/5 years of relevant experience
10	Painter	2	Literate / Middle	3/5 years of relevant experience
11	General Helper	7	Literate / Middle	3/5 years of relevant experience
Total Staff with Supervisor / Incharge		90		
NOTE:				
1. All staff would be interviewed and selected by the consent of competent authority after verification of their relevant documents (Qualification and Experience).				
2. Contractor should be attached CV, Academic documents and Experience certificates. (According to above mentioned criteria).				
Amounts must be submitted only in financial proposal and not appear in technical proposal, else the offer will be rejected.				

A. SCOPE OF WORK FOR ELECTRICAL

Operations and Maintenance (O&M) of electrical equipment/installations of the building which are listed as follows but not limited to:

- HT Panels / 11 kV Panels and Phase Reversal Panels
- LT Panels/Distribution Panels/Generator Control Panels/Bus Couplers/PFI Panels
- Main Distribution Boxes (MDBs)/Sub Main Distribution Boxes (SMDBs)
- Floor Distribution Boxes
- Main and sub main cables
- Earthing conductors and earthing points
- Lightning protection facilities
- Wiring for points and / or circuits and / or outlets
- Light Fixtures, power points
- Any other area falling under electrical department
- Two transformers of PEL make of rating 2000 kVA each placed in our HT Room. Details of each are as follows:
 - KVA: 2,000 KVA
 - Volts (HV): 11,000 volts
 - Volts (LV): 415 volts
 - Ampere (HV): 104.9 A
 - Ampere (LV): 2782.4 A
 - Phases (HV): 3 phase
 - Phases (LV): 3 phase
 - Frequency (Hz.): 50 Hz.
 - Vector Group: DYN-11
 - Specification: IEC60076
 - Type of Cooling: ONAN
 - Total Mass (Kg.): 5,160 kg.
 - Year of Manufacture: 2014
 - Impedance Volts (%): 6

HT Volts	Switch position	LT Volts
11550	1	415
11275	2	
11000	3	
10725	4	
10450	5	

- Both corrective and preventive maintenance will be carried out of above equipment/installations.
- Contractor must ensure that operation and maintenance of each equipment/installations is carried out on daily, weekly, monthly and on annual basis as per requirement.
- The contractor will provide uniform, identity cards to each and every deployed staff.
- The contractor shall provide the list of staff with telephone numbers to procuring agency.
- The contractor should ensure all safety precautions for its staff.
- The contractor staff should be equipped with proper hand tools, machines and similar equipment's as per required nature of work.
- The maintenance logs of each equipment/installation should maintained and submit to procuring agency on regular basis.
- All Maintenance Schedules formats will be provided by competent authority.

1. SCHEDULE OF PREVENTIVE MAINTENANCE ACTIVITIES:

Following are the preventive maintenance activities of individual equipment to be performed on daily/weekly, monthly, quarterly/bi-annual and/or annual basis in addition to corrective maintenance. The detailed service report and log book of each activity should be maintained and submitted to the authorized representative of Procuring Agency on monthly basis.

Please ensure following during maintenance activities:

- Maintenance personnel must wear proper PPEs (personnel protective equipment) and carry basic tools, multi-meter, clamp-on meter etc.
- During live system inspections, keep safe limits of approach to live parts
- Make entries of the observations in log/check sheets Electrical Equipment Checklists

2. DAILY MAINTENANCE:

- Cleaning of room and area surrounding LT & PFIP panels and DBs. The access to panels/DBs should be clear, unobstructed and free from objects
- Electrical room, SMDB and DBs will be maintained floor wise i.e each day, all electrical installations on a selected floor as per maintenance schedule will undergo preventive maintenance
- Walk around visual inspection to check apparent condition, abnormal noise/smell
- Checking of indication lamps, meters, display panels
- Check for loose/broken connections, cable terminations and/or damage components and overheating marks
- Check if room temperature is maintained as per specifications
- All observations/activity must be noted in provided formats
- Noting down all load and temperature parameters, KE reading and transformer temperature reading

3. WEEKLY MAINTENANCE:

- Cleaning of HT & Substation room and area surrounding panels. The access to panels should be clear, unobstructed and free from objects.
- Walk around visual inspection to check apparent condition, abnormal noise/smell
- Checking of Indication lamps, meters and operations counter of panels
- Cleanliness of Room and area surrounding transformer. The access should be clear, unobstructed and free from objects
- Walk around visual inspection of transformer to check apparent condition, oil leakages and abnormal noise/smell
- Checking of Silica gel, breather, oil levels indicators, and gauges
- Checking of Indication lamps, meters and operations counter of panels
- All observations/activity must be noted in provided formats

4. MONTHLY MAINTENANCE:

- Checking of doors, door locks, door stops, light, vermin proofing and grounding connection
- Checking of wiring, terminal blocks, Protective relays and accessories
- Checking of LT/HT/Transformer Panel grounding connections
- Checking of trolley Rack IN/OUT operation and floor level
- Checking of transformer body ground Connections
- Checking of transformer neutral ground connections
- Checking transformer bushing conditions and tightness (HV/LV/Neutral)
- Physical checking of Buchholz relay for any leakages, damages, proper connections
- Checking of MCB/MCCB switches, fuses, relay fittings, wiring, terminal blocks in DBs/SMDBs

- Checking of doors, Locks, Door packing, panel lights, vermin proofing, cleaning and proper glands for cable entrance in DBs/SMDBs
- All observations/activity must be noted in provided formats

**5. ANNUAL MAINTENANCE (IF APPLICABLE):
FOR HT PANELS:**

- Thorough cleaning and servicing of all HT panels.
- Inspection, Cleaning, Servicing and lubrication of Circuit Breaker Mechanism
- Cleaning and lubricating all movable mechanical parts
- Checking tightness of all power and control cables
- Earth Resistance Test of panel Ground connections
- Checking healthiness of VCB bottles and coils
- Insulation Resistance Test (poles, bus bars and power cables)
- Contact resistance Test of VCB
- Checking healthiness of protective relays and CTs/PTs
- Tripping testing of VCB through over-current and earth fault relay
- Breaker Timing Test
- Vacuum Integrity Test (Destructive Testing)
- Bus Bar Inspection & Testing

FOR TRANSFORMERS:

- Thorough cleaning and servicing of complete transformer
- Buchholz relay functional test (Alarm and trip indications and alarm)
- Oil temperature alarm and trip test indications and alarm
- Winding temperature alarm and trip test indications and alarm (if applicable)
- PRD trip test indications and alarm (if applicable)
- Oil Dielectric Test
- Offload tap changer test operation
- Winding Resistance Measurement
- Static resistance measurement of Contacts
- Insulation Resistance & DAR/PI
- Transformer Turn Ratio Test
- Capacitance and Dissipation Factor of windings
- Tan Delta Test of Bushings and Winding
- Sweep Frequency Response Analysis
- Excitation Current

FOR LT/PHASE REVERSAL/MDBS/DBS/EARTH PITS PANELS:

- Thorough cleaning and servicing of all panels
- Cleaning and servicing of Air Circuit Breakers (ACB)
- Checking reset mechanism and tripping of ACBs
- Checking tightness of all power and control cables
- Functional tests of ACBs
- Insulation Resistance test of bus bars
- Earth Resistance Test of panels
- Checking of P.F equipment, capacitor banks, relays (in case of PFI panel)
- Insulation Resistance Test of all LT cables
- Breaker Timing Test
- Bus Bar Inspection & Testing

- Thorough cleaning and servicing of all DB panels
- Checking of Magnetic Contactors' operation
- Checking of selector switches operation
- Checking of timer relay connections, ammeter and voltmeter terminals
- Checking tightness of all power and control cables
- Checking Panels grounding connections
- Checking of earth pits of buildings through Earth Resistance tests

The cost of above all tests and activities will have to be borne by the contractor.

6. CORRECTIVE MAINTENANCE:

All types of complaints requiring circuit modification, lighting and power connection, faulty lights replacements, rectification and any other electrical works will be carried out by the contractor staff. The contractor must provide its staff with the proper tools and accessories to carry out the required works smoothly. Safety protocols must be followed while carrying out any activity.

NOTE:

- All the maintenance / servicing works should be carried out in such a way so that the equipment can be used for its optimum performances. Any work which is found to be required for optimum performance of the system has to be done.
- Necessary care should be taken while carrying out all types of maintenance / servicing of equipment to avoid damages.
- Any breakdown complaint should be attended immediately to avoid disturbance in center activities. Spares & tools required to attend any breakdown has to be maintained.
- During routine / periodic maintenance and during breakdown maintenance the contractor shall repair faulty parts / equipment with his resources. Repair shall be done in such a way that it should not affect the performance & life of the equipment, and while doing maintenance work, care should be taken.
- All the works are to be done as per daily / monthly/ half yearly or yearly schedule. In case, if it requires the same work to be done in-between, same shall be attended.
- The essence of the contract is to maintain the system in such a way that it gives desired optimum performance. Repair / replacement of all the parts / equipment required for proper functioning of the machine, whether specified or not, are included in the scope of work.

7. SHIFT WISE WORK FLOW FOR ELECTRICAL:

A tentative shift wise work flow is given as follows:

S.#	Activity	Frequency	Time	Responsible Shift
1	KE Meter Reading	Daily	8:30 AM – 9:00 AM	A
2	HT Room & Transformer Maintenance	Weekly	Anytime during shift and any day during week when workload is low	A/B
3	DB/MDB/SMDB/Electric Room Maintenance	Daily	9:00 AM	A
4	Technical Parameters	Daily	12:00 AM, 02:00 AM, 04:00 AM, 06:00 AM, 08:00 AM, 10:00 AM,	A, B, C, C+
	(A, V reading)		12:00 PM, 02:00 PM, 04:00 PM, 06:00 PM, 08:00 PM, 10:00 PM	
5	Temperature and Humidity logging	Daily	12:00 AM, 02:00 AM, 04:00 AM, 06:00 AM, 08:00 AM, 10:00 AM,	A, B, C, C+
			12:00 PM, 02:00 PM, 04:00 PM, 06:00 PM, 08:00 PM, 10:00 PM	
6	Floor Wise Technical Parameters	Daily	12:00 PM	A
	(per phase A, V reading)			
7	LT/PF/Control Panel Maintenance	Daily	11:30 PM	C, C+
8	HT Room Fan Operation	Daily	8:30 AM, 4:30 PM,	A, B, C, C+
	(Turn OFF one fan, Turn ON other fan)		12:30 AM	
9	Electrical Complaints	Daily	24 hours	A, B, C, C+
10	Any other work as assigned	When assigned	When assigned	A, B, C, C+

B. SCOPE OF WORKPOWER GENERATION SYSTEM (GENSETS):

Operations and Maintenance (O & M) of following but not limited to:

S No.	Fuel Type	Rating	Qty.	Make	Status
01	Diesel	1250 kW	02	Cummins	Functional
02	Gas	1250 kW	02	Caterpillar	Non-Functional

1. Maintenance of underground diesel tank of 20,000 Ltr. Capacity
2. Maintenance of two nos. of in-house diesel tanks each of 2500 Ltr. Capacity
3. Maintenance of Diesel Pump Motor
4. Synchronization Panel (Non-functional)
5. Fuel (Diesel) for Generators will be provided by the SMBBIT management.

- Both corrective and preventive maintenance will be carried out of above equipment/installations.
- Contractor must ensure that operation and maintenance of each equipment/installations is carried out on daily, weekly, monthly and on annual basis as per requirement.
- The contractor will provide uniform, identity cards to each and every deployed staff.
- The contractor shall provide the list of staff with telephone numbers to procuring agency.
- The contractor should ensure all safety precautions for its staff.
- The contractor staff should be equipped with proper hand tools, machines and similar equipment' as per required nature of work.
- The maintenance logs of each equipment/installation should maintained and submit to procuring agency on regular basis.
- All Maintenance Schedules formats will be provided by competent authority.

1. SCHEDULE OF MAINTENANCE ACTIVITIES

Following are the preventive maintenance activities of individual equipment to be performed on daily/weekly, monthly, quarterly/bi-annual and/or annual basis. The detailed service report and log book of each activity should be maintained and submitted to the authorized representative of Procuring Agency on monthly basis.

Please ensure following during maintenance activities:

- Maintenance personnel must wear proper PPEs (personnel protective equipment) and carry basic tools, multi-meter, clamp-on meter etc.
- During live system inspections, keep safe limits of approach to live parts
- Make entries of the observations in log/check sheets Electrical Equipment Checklists

2. MAINTENANCE PROCEDURE OF GENERATORS:

Following maintenance activities will be carried on daily, quarterly, annual basis:

3. DAILY MAINTENANCE:

- Daily Servicing and Maintenance
- General Inspection & Cleaning
- Check Engine Oil Level
- Check Radiator Water Level
- Check battery voltage/battery water & battery terminal
- Check Engine Pressure
- Check engine Temperature
- Check any abnormal sound
- Check all meters, indications, and alarms on panels

- All observations/activity must be noted in provided formats

4. QUARTERLY/250 RUNNING HOURS MAINTENANCE (WHICHEVER COMES FIRST):

- Change Engine Oil
- Change Oil Filter & Fuel Filter including strainer cleaning
- Clean/Inspect Air & Water Filter
- Clean Radiator with Pressurized Air
- Clean/ Grease Battery Terminals & Check Electrolyte Level
- Change air filter
- Addition of coolant if required
- Inspection, checking and required servicing of diesel pump motor
- All observations/activity must be noted in provided formats

5. ANNUAL MAINTENANCE (IF APPLICABLE):

- Fuel Injectors servicing & maintenance
- Fuel pumps servicing & maintenance
- Radiator De-scaling
- Self-servicing
- Charging Alternator servicing
- Alternator Re-varnishing
- Repaint on in-house diesel generator tanks, generators and allied structure
- All observations/activity must be noted in provided formats

6. CORRECTIVE MAINTENANCE:

All types of complaints requiring any modification, servicing and any other works will be carried out by the contractor staff. The contractor must provide its staff with the proper tools and accessories to carry out the required works smoothly. Safety protocols must be followed while carrying out any activity.

NOTE:

- All the maintenance / servicing works should be carried out in such a way so that the equipment can be used for its optimum performances. Any work which is found to be required for optimum performance of the system has to be done.
- Necessary care should be taken while carrying out all types of maintenance / servicing of equipment to avoid damages.
- Any breakdown complaint should be attended immediately to avoid disturbance in center activities. Spares & tools required to attend any breakdown has to be maintained.
- During routine / periodic maintenance and during breakdown maintenance the contractor shall repair faulty parts / equipment with his resources. Repair shall be done in such a way that it should not affect the performance & life of the equipment, and while doing maintenance work, care should be taken.
- All the works are to be done as per daily / monthly/ half yearly or yearly schedule. In case, if it requires the same work to be done in-between, same shall be attended.
- The essence of the contract is to maintain the system in such a way that it gives desired optimum performance. Repair / replacement of all the parts / equipment required for proper functioning of the machine, whether specified or not, are included in the scope of work.

Note # 1: The cost of all above material and tests will be borne by the Contractor.

7. SHIFT WISE WORK FLOW FOR ELECTRICAL:

A tentative shift wise work flow is given as follows:

S.#	Activity	Frequency	Time	Responsible Shift
1	KE Meter Reading	Daily	8:30 AM – 9:00 AM	A
2	HT Room & Transformer Maintenance	Weekly	Anytime during shift and any day during week when workload is low	A/B
3	DB/MDB/SMDB/Electric Room Maintenance	Daily	9:00 AM	A
4	Technical Parameters	Daily	12:00 AM, 02:00 AM, 04:00 AM, 06:00 AM, 08:00 AM, 10:00 AM,	A, B, C, C+
	(A, V reading)		12:00 PM, 02:00 PM, 04:00 PM, 06:00 PM, 08:00 PM, 10:00 PM	
5	Temperature and Humidity logging	Daily	12:00 AM, 02:00 AM, 04:00 AM, 06:00 AM, 08:00 AM, 10:00 AM,	A, B, C, C+
			12:00 PM, 02:00 PM, 04:00 PM, 06:00 PM, 08:00 PM, 10:00 PM	
6	Floor Wise Technical Parameters	Daily	12:00 PM	A
	(per phase A, V reading)			
7	LT/PF/Control Panel Maintenance	Daily	11:30 PM	C, C+
8	HT Room Fan Operation	Daily	8:30 AM, 4:30 PM,	A, B, C, C+
	(Turn OFF one fan,		12:30 AM	
	Turn ON other fan)			
9	Electrical Complaints	Daily	24 hours	A, B, C, C+
10	Any other work as assigned	When assigned	When assigned	A, B, C, C+

MAIN POINTS OF A & B:

1. Maintenance Services of the Generators, Electrical and Allied Equipment according to manufacturer's manual and specific building requirement.
2. Maintenance services for all Allied equipment including but not limited to LT Panel, Phase reversal Panels, Transformers, HT Switches, fuel tanks, fuel piping system, equipment in electrical distribution room and parts of generators such as electrical and control breakers, oil, air and fuel filters, batteries, battery chargers, dc motors, fuel pumps, fan belts, actuator, modules, relays, sensors and switches and any other device or component operating in conjunction with above listed equipment.
3. Services for ensuring switching of power in case of utility failure and for testing purposes.
4. Services for and general upkeep of generators, electrical generator room, and LT Rooms, HT Rooms and electrical rooms surrounding areas.
5. The contractor shall be responsible for ensuring that no Safety of the system is by-passed in any way, under any circumstances.
6. The contractor shall be responsible for any loss or damage to the SMBBIT property, data, or persons etc. during or due to the services carried out by the service provider under this contract.

7. Should keep the tools, equipment, and calibrated instruments at site for carrying out the continuous and uninterrupted management services.
8. The contractor shall maintain a log management services/ repairs/other services of the equipment as per service execution plan.
9. All readings shall be recorded in printed log sheets prepared as per standard format.
10. Daily continuous and uninterrupted service execution report shall be prepared and signed by contractor in which all-continuous and uninterrupted management services details will be written on a printed logbook, as per format.
11. Contractor will have to arrange OEM manufacturer manual of all above equipment mentioned under the scope of works
12. The maintenance will be carried out as recommended in the OEM manufacturer manual and at intervals defined in the OEM manufacturer manual
13. Both corrective and preventive maintenance will be carried out of above equipment/installations.
14. Contractor must ensure that operation and maintenance of each equipment/installation is carried out on daily, weekly, and monthly and on annual basis as per requirement of manufacturer manual which will be arranged by the contractor himself.
15. The contractor will provide uniform, identity cards to each deployed staff approved by the SMBB IT.
16. The contractor shall provide the list of staff with telephone numbers to procuring agency.
17. The contractor should ensure all safety precautions for its staff, workplace etc.
18. The contractor staff should be equipped with proper hand tools, machines and similar equipment' as per required nature of work.
19. The maintenance logs of each equipment/installation should maintain and submit to procuring agency on regular basis.

METHOD OF PERFORMING WORKS:

The contractor is required to submit a narrative outlining the method of performing the Works. The narrative should indicate in detail and include but not be limited to:

- I. The sequence and methods in which he proposes to carry out the maintenance works, including the formats to be used which must comply with the manufacturer manual's recommendations.
- II. A list of all tools proposed to be used in carrying out the Works at Site, including number of each kind, make, type, capacity of all equipment, working condition, which shall be deployed by him for maintenance, in sufficient detail to demonstrate fully that the equipment and installation will meet all the requirements of the Technical Provisions.
- III. The procedure for maintenance of equipment in compliance with the manufacturer manual's recommendations.
- IV. Organization chart indicating head office & field office personnel involved in management, supervision, and engineering of the Works to be done under the Contract.
- V. The contractor shall list in these plan details of all staff he will employ to perform maintenance works, together with their names, qualifications, experience, positions held.

The method of performing works should comply with the requirements of applicable standards

TYPICAL LIST OF TOOLS REQUIRED FOR WORKSHOP:

The typical list of tools which the contractor must have but not limited to the following:

- Plier Set
- Cutter Plier Set
- Screwdriver Star Set
- Ring Spanner Set

- Star L-Key Set
- L. Key Set
- Box Spanner set
- Screw Drivers Set
- Hammer Cross Peen 1Kg
- Drill Machine
- Lubricating material
- Digital Multi-meter
- Infrared Temperature Gun
- Digital Tongue Tester (Clamp meter) 1000A
- Air Blower for cleaning
- Screw wrench
- Screwdriver Set
- Hammer Ball Peen 1Kg
- LV Toolbox/Bag
- D-Spanner Set
- Torch

C. SCOPE OF WORK HVAC:

Provide complete operations and preventive maintenance of following equipment/installations and their allied accessories of the building which are listed as follows but not limited to:

S.#	Description of equipment	Quantity +-
1	Multi-Energy Absorption Chiller – Direct Flue Gas 420 Tons	03
2	Cooling towers	03
3	Fresh Air Handling Units	13
4	Air Handling Units	28
5	Fan Coil Units	187
6	Exhaust Fans	65
7	Water Cooler & Dispenser	45
8	Refrigerators	30
9	VRV Chiller	03
10	Split AC Wall and floor mounted	80
11	Dehumidifier	25
12	Ducting & Piping system with duct heaters in 18 numbers operation theatres at 6 th , 8 th , 9 th & 11 th floor.	1 Job

1. Ensure that operation and maintenance of each unit will be carried out on regular, fortnightly, monthly and on early basis as per procuring agency requirement. (Enclosed)
2. The contractor will provide uniform, identity cards to each and every deployed staff.
3. The contractor shall provide the list of staff with telephone numbers to procuring agency.
4. The contractor should ensure all safety precautions for its staff.
5. The contractor should be equipped with proper hand tools, machines and similar equipment' as per procuring agency requirement. (Enclosed)
6. The contractor must notify by written notice to procuring agency prior to making of any repair.
7. The detailed service report and log book of each unit should maintained as per manufacturer manual & procuring agency requirement and submit to procuring agency on regular basis.
8. All Below Maintenance Schedules which will be provide by HVAC Competent authority.

MANDATORY NOTE:

1. The Contractor will enter into an agreement with the manufacturer / sole agent of the chillers for their consultancy, troubleshooting, annual maintenance contract and contractor will bear all charges of that contract and also share detail report about chiller and cooling towers with procuring agency time to time.
2. Calibration, water& air balancing, consumables monthly of close/ open circuit/cooling tower, chillers shaungling qty.02 & Kawasaki qty.01 annual maintenance including recommended chemical dosing after test of water like lithium molibidate & octylealchol solely contractor responsibility and contractor will also share reports and proof of chemical dosing with procuring agency and also contractor will bear all charges of all works.

1. SCHEDULE OF PREVENTIVE MAINTENANCE ACTIVITIES:

Following are the preventive maintenance activities of individual equipment to be performed on daily/weekly, monthly, quarterly/bi-annual and/or annual basis in addition to corrective maintenance. The detailed service report and log book of each activity should be maintained and submitted to the authorized representative of Procuring Agency on monthly basis.

Please ensure following during maintenance activities:

- Maintenance personnel must wear proper PPEs (personnel protective equipment) and carry basic tools, multi-meter, clamp-on meter etc.
- During live system inspections, keep safe limits of approach to live parts
- Make entries of the observations in log/check sheets HVAC Equipment Checklists

2. DAILY MAINTENANCE:

1. Check for any complaints that are reported and troubleshoot them immediately.
2. AC system of the important & critical facilities are to be continuously monitored and corrective actions are to be taken immediately so as not to affect the facility concerned
3. If any important activities like seminars / lectures / meetings / interviews are planned in the Institute, concerned AC system has to be inspected and normal functioning of AC system is to be ensured.
4. Adjustments in the system to achieve required temperature & RH level as required by the user. Release of air locks / blocks in the system.
5. If there is any instruction to operate the AC systems in the specific timings, the same has to be materialized.
6. General inspection of the AC system and rectification if any abnormality exists.
7. Attending to the planned / scheduled preventive maintenance.
8. Updating of all the relevant documents, logs, history books etc.
9. Reporting of day's work and progress to concerned Engineer-in-charge.

3. QUARTERLY MAINTENANCE:

1. Inspect connection for any water leaks in the coil and connection. Check the tightness of hose, fittings & tighten if necessary. There should not be any flooding of water from the AHU.
2. Check and clean drain pan, condensate drain pipe and floor drains to ensure no choking and flooding.
3. Cleaning of cooling coils, fins and filters, air & water flow, release of air lock etc.
4. Open up the electrical control panel, inspect for any blackening of contacts, loosening of connections, component condition etc. rectify if any abnormality is noticed.
5. Inspect the conditions of the thermometers and pressure gauges for proper function.
6. Check for proper operation of the associated measuring, control and safety device like thermostat, humidistat, 3 way actuating valves etc. Reset if required.
7. Check, report and rectify, if any abnormal noise / vibration is observed.
8. Check and re-tighten any loose bolts and nuts in proper sequence.
9. Clean all the type air filters.
10. Check the fan belts for proper tension, and replace if necessary, and examine the fans for correct alignment, lubricate the bearing as required.
11. Check heater bank condition and rectify if any problem exists.
12. Inspect the condition of insulation materials and rectify if necessary.
13. Clean the water strainer of chilled water system.
14. Entire AHU room to be thoroughly cleaned with vacuum cleaner & to be made clean & dust free.

4. YEARLY MAINTENANCE:

1. Perform quarterly services.
2. Overall servicing of the unit, cleaning, reduction of noise level, checking of mechanical assemblies, foam insulators over the pipes.
3. De scaling of copper tubes of the cooling coil (the water circuit) by suitable means as per manufacturer's recommendation and general standards.
4. Parameter checking before & after servicing

5. Air flow checking & adjustment / balancing, if required
6. Checking and calibration of temperature and pressure gauges on supply & return chilled water lines and replacement of the same if required.
7. Checking of unit efficiency, total capacity delivery of the unit & bringing it to optimum performance level, air flow and water temperature measurements on supply & return ends.
8. General checking of electrical switchgears controls etc. All electrical system should be checked through competent persons.
9. Cleaning of ducting system having diffusers, grills, dampers etc.
10. Necessary documentation of parameters (before & after servicing work) and submission of checklist

NOTE:

1. If it is required to clean the cooling coil by water jet, the same has to be done by removing the cooling coil with all precautionary measures & taking it to a convenient place for full cleaning of water & air circuits. Coil to be cleaned with suitable chemical & water jet. This work is to be done carefully without damaging the AHU & the coil.
2. Coil, fins, filters etc. are to be thoroughly cleaned to achieve desired air and water flow rates.
3. All the maintenance / servicing works should be carried out in such a way so that the equipment unit can be used for its optimum performances. Any work which is found to be required for optimum performance of the system has to be done.
4. Necessary care should be taken while carrying out all types of maintenance / servicing of equipment to avoid damages.
5. Contractor should supply all necessary materials like Nitrogen, Electric Welding Plant and Allied Accessories, Gas Welding Plant with allied accessories suitable grade of grease / lubricant, cleaning brush etc., to carry out servicing.

5. BREAKDOWN MAINTENANCE:

Any breakdown complaint should be attended immediately to avoid disturbance in center activities. Spares & tools required to attend any breakdown has to be maintained.

After attending to breakdowns, the unit / system shall be closely observed / monitored next day and parameters shall be checked & recorded.

During routine / periodic maintenance and during breakdown maintenance the contractor shall repair faulty parts / equipment with his resources. Repair shall be done in such a way that it should not affect the performance & life of the equipment, and while doing maintenance work, care should be taken that water should not come out from the unit.

All the works to be done as per daily / monthly/ half yearly or yearly schedule In case, if it requires the same work to be done in-between, same shall be attended.

The essence of the contract is to maintain the Air-conditioning system in such a way that it gives desired optimum performance. Repair / replacement of all the parts / equipment required for proper functioning of the machine, whether specified or not, are included in the scope of work.

6. DE-SCALING & CLEANING OF COOLING COILS & FINS:

It is a once in a year activity. The work procedure is as follows:

Ensure that the power supply of the unit should be disconnected / switched off and caution board to be fixed at the main isolation of power supply. Take pre-service system running parameter readings (Air flow, DB, WB temp. readings, electrical parameters etc.)

Ensure that main valves (ball valves of the unit) should be in closed condition. Arrange to cover & ensure that water should not fall on electrical control box, motorized valves, pressure gauges, etc. Failure to cover electrical control box, Motorized valves and other electrical circuits where water fall on such item may lead to serious injury / death / damage to the equipment accessories etc, for which contractor is solely responsible. Loosen the hose clips and remove the connections from the cooling coil. Prepare the chemical mixture & keep it ready in a container / tank. Circulate it through the cooling coil for specified time as recommended by the manufacturer. (Note: Contractor should arrange for container / tank etc.,) After circulation of chemical mixture through the cooling coil, flush out the coil using fresh water before connecting the hose connections.

Coil fins should be cleaned using fins cleaning chemical, brush & should be cleaned to remove the sediments & dust particles of the entire coil. Should ensure there should not be any folding of coil fins which may result in improper flow of air through the coil. Should ensure that always air should be passed through the coil, any bypass of airflow should be attended immediately and rectified. Ensure that cooling coil filters is in good / clean condition, if the filter is choked, the same should be cleaned and fixed. Reconnect all the systems & take the post service running parameter readings. After completing the work, it should be ensured that the entire unit & the surrounding area are cleaned thoroughly.

NOTE:

Any accidents occurred due to negligence / inexperience during work is purely the responsibility of the contractor, Contractor should also ensure that water should not come outside the rooms while executing the work. Prior approval should be obtained from Engineer-in-Charge for the chemical / solution being used for de-scaling. The chemical shall be recommended by manufacturer. Arrangement of pump, chemical tank, a small power distribution board with back up protection of MCB/Fuse/ELCB required for operation of motors pump sets is the responsibility of the contractor.

7. METHOD OF PERFORMING WORKS:

The contractor is required to submit a narrative outlining the method of performing the Works. The narrative should indicate in detail and include but not be limited to:

- I. The sequence and methods in which he proposes to carry out the maintenance works, including the formats to be used which must comply with the manufacturer manual's recommendations.
- II. A list of all tools proposed to be used in carrying out the Works at Site, including number of each kind, make, type, capacity of all equipment, working condition, which shall be deployed by him for maintenance, in sufficient detail to demonstrate fully that the equipment and installation will meet all the requirements of the Technical Provisions.
- III. The procedure for maintenance of equipment in compliance with the manufacturer manual's recommendations.

- IV. Organization chart indicating head office & field office personnel involved in management, supervision, and engineering of the Works to be done under the Contract.
- V. The contractor shall list in these plan details of all staff he will employ to perform maintenance works, together with their names, qualifications, experience, positions held.

The method of performing works should comply with the requirements of applicable standards

8. LIST OF TOOLS REQUIRED FOR WORKSHOP:

The typical list of tools which the contractor must have but not limited to the following:

S. #	Description	Unit	Sizes	Qty.
1	Karcher Pump	150 bar	-	02
2	Air Blower	-	-	02
3	Pipe Wrench	-	8"10"12"14"	4 Each
4	Adjustable Wrench	-	6"8"10"12"	4 Each
5	Hammer	FLAT	-	2
	Hammer	PIN BALL	-	2
7	Pliers	-	-	04
8	Cutter Pliers	-	-	04
9	Nose Pliers	-	-	04
10	Ellen Key	MM	-	03
11	Ellen Key	INCHES	-	03
12	Spanner Set	RING	-	02
13	Spanner Set	FIX	-	02
14	Screw Driver	SET	-	5
15	Mechanical Screw Driver	SET	-	01
16	Hack Saw Frame	-	-	02
17	Hack Saw Blade	-	2 SIDED	24
18	Knife Blade	-	-	06
19	Star Set	-	-	04
20	Grip Pliers	-	-	04
21	Measuring Tape	-	50'20'15'	3 Each
22	Gauge Manifold Complete Set	R22,R410a	5/16 .1/4	2/4
23	Electric Welding Complete Set	-	-	01
24	Brazing Set Portable Complete	MINI	-	01
25	Brazing Set With Fire Arrester	BIG	-	01
26	Nitrogen Cylinder With Regulator	BIG	-	01
27	Baby Grinder	-	-	01
28	Table Grinder	-	-	01
29	Flaring Tool Professional Kit	-	-	02
30	Pipe Cutter	-	-	03
31	Drill Machine	-	-	01
32	Bids Set Complete Drill Machine	-	-	01
33	Hilti Machine	-	-	01
34	Ampere Metter	-	-	02
35	Multi Metter	-	-	01
36	Wrenched Set	MM	-	01
37	Wrenched Set	INCHS	-	01

38	Flat File	-	Diff sizes	01
39	Round File	-	Diff sizes	01
40	Triangle File	-	Diff sizes	01
41	Hole Punch	-	-	01
42	Punching Tools	-	-	01
43	Scissor Rubber Gas Kit	-	-	01
44	Round Cutter	-	-	02
45	GI Sheet Cutter	-	-	01
46	Vacuum Pump	-	-	01
47	TDS Meter	-	-	01
48	PH Meter	-	-	01
49	Bearing Puller	-	10"12"14"	3 Each
50	Digital Temperature Tester	IN/OUT	-20 TO +500	01
51	Laser Temperature Tester	GUN	-	01
52	Nylon Brush	-	-	12
53	Wire Brush	-	-	12
54	Scraper	-	2" - 3" - 4"	05
55	Chisel	-	-	03
56	Chisel	-	-	03
57	Copper Pipe Bender	-	½", 5/8", ¾"	3 Each
58	Soldering Iron With Soldering Wire	-	-	01
59	Soldering Sucker	-	-	01
60	Heat Gun For Soldering Removing	-	-	01
61	Vernier caliper	-	-	01
62	Refrigerant Recovery Pump	-	-	01
63	R.P.M Tester	-	-	01
64	C.F.M Tester	-	-	01
65	Sound Level Tester	-	-	01
66	Lugs Punch	-	-	02
67	Oil Can For Oil Filing	SMALL	-	01
68	Grease Gun	SMALL	-	01
69	Torch light	-	-	02
70	Scarf Folding	-	-	25 feet

9. SHIFT WISE WORK FLOW FOR HVAC & BMS:

A tentative shift wise work flow is given as follows:

S.#	Activity	Frequency	Time	Responsible Shift
01	HVAC Chiller Plant LOG Sheet & Operations Register Maintain	Daily	24, Hours	A, B, C
02	HVAC Open & Close Circuit Chemical Dozing Reports	Daily	8:00 AM – 10:00 PM	A
03	HVAC Preventive Maintenance of Fresh Air Handling Units (FA-AHU)	Daily	8:00 AM – 12:00 PM	A
04	HVAC Preventive Maintenance of Air Handling Units (AHU)	Daily	When assigned	A, B, C
05	HVAC Preventive Maintenance of Fan Coil Unit (FCU)	Daily	When assigned	A, B, C

S.#	Activity	Frequency	Time	Responsible Shift
06	HVAC Preventive Maintenance of Split Ac's & Floor Standing Ac's (AC's)	Daily	8:00 AM – 10:00 PM When assigned	A & B
07	HVAC Preventive Maintenance of Dehumidifier	Daily	8:00 AM – 10:00 PM When assigned	A & B
08	HVAC Preventive Maintenance of Variable Refrigerant Volume (VRV)	Weekly	8:00 AM – 4:00 PM	A
09	HVAC Preventive Maintenance of Cooling Tower	Weekly	8:00 AM – 10:00 PM When assigned	A & B
10	DB/MDB/SMDB HVAC Plant Room & FA-AHU, Ahu's Room's	Daily	When assigned	A
11	BMS Preventive Maintenance of Fresh Air Handling Units (FA-AHU)	Daily	8:00 AM – 12:00 PM	A
12	BMS Preventive Maintenance of Air Handling Units (AHU)	Daily	When assigned	A, B, C
13	BMS Daily Working Reports	Daily	24, Hours	A, B, C
14	Any Other Work & Complains	Daily	When assigned	A, B, C

Shift Timings

- Shift A: 08:00 AM – 04:00 PM
- Shift B: 03:00 PM – 10:00 PM
- Shift C: 10:00 PM – 08:00 AM

D. SCOPE OF WORK FOR BMS:

1. Provide complete and maintenance services to building management.
2. Ensure that operation and preventive maintenance of each unit will be carried out on regular basis.
3. The contractor will provide uniform, identity cards to each and every deployed staff.
4. The contractors shall provide the list of the staff with telephone numbers to the department.
5. The contractor should ensure all safety precautions for its staff.
6. The contractor should be equipped with proper hand tools and similar equipment's.
7. The contractor shall be responsible for the execution of minor repairs and adjustments related to activities of ordinary wear and tear maintenance.
8. The contractor must notify by written notice to procuring agency prior to the making of any repair.
9. Procuring agency will provide an office to contractor for administrative purposes only.
10. The detailed service report and log book of each unit should maintained as per manufacturer

MANDATORY NOTE:

The Contractor will enter into an agreement with the manufacturer / sole agent of building management system (BMS) for their consultancy, Software updates etc. Contractor will bear all charges of that contract. Contractor will share detail report about BMS with procuring agency time to time.

E. SCOPE OF WORK CIVIL & PLUMBING DEPARTMENT

Operations, running, repair and maintenance of following but not limited to:

S. #	Equipment / Item description	Location
1.	Suction Pumps	Water storage tank
2.	Overhead Vertical Pump	Basement pump room
3.	Summer Pumps (Sump Pits)	All sump-pits
4.	Wooden Items (Doors, Cabinets, Tables, Etc.)	All floor of SMBBIT
5.	Plumbing Fittings & Fixtures (M.S, S.S, Seamless, PPR, Dadex, PVC, Etc.)	Ducts - all floor of SMBBIT
6.	Seamless Pipes, Trolleys, Grill, Gates, Statures, Beds, Barriers, Boiler Fittings, S.S Doors And Other Metallic Work.	All floors of SMBBIT
7.	Assemble and installation of glass and aluminum sliding door, windows, curtain walls and glass panel.	All floors of SMBBIT
8.	Prepare Surfaces for Painting, Including Sanding and Removing Old Paint. Fill Nail Holes, Cracks, And Joints With Putty, Plaster, Or Other Filler	All floors of SMBBIT
9.	Polishing The Wood With French Polish (Shellac Dissolved In Methylated Spirits), Using A Padded Cloth.	All floors of SMBBIT
10.	Brick Laying And Tiling	All floors of SMBBIT
11.	RO plant	05 th and 13 th floor of SMBBIT
12.	Gas Boiler	13 th floor at SMBBIT
13.	Boiler Electrical	13 th floor at SMBBIT

Note:

1. Both corrective and preventive maintenance will be carried out of above equipment/installations.
2. Contractor must ensure that operation and maintenance of each equipment/installations is carried out on daily, weekly, monthly and on annual basis as per requirement.
3. The contractor will provide uniform, identity cards to each and every deployed staff.
4. The contractor shall provide the list of staff with telephone numbers to procuring agency.
5. The contractor should ensure all safety precautions for its staff.
6. The contractor staff should be equipped with proper hand tools, machines and similar equipment' as per required nature of work.
7. The maintenance logs of each domain should maintained and submit to procuring agency representative.
8. All Maintenance Schedules formats will be provided by competent authority.
9. Maintenance of underground & overhead water tanks.
10. Maintenance of all Pumps.
11. Maintenance of RO plant and Boiler Gas & Electrical.

1. DUTIES AND RESPONSIBILITIES

SUPERVISOR:

1. Will be responsible for all smoothly running operations.
2. Will be responsible for arranging alternate staff in case of absence of regular staff.
3. Will maintain daily work record, daily complain log book.
4. The detailed service report and log book of each work should be maintained and submitted to the authorized representative of Procuring Agency on daily, weekly & monthly basis.
5. Will be responsible to arrange all tools and tackles, plants machineries, required equipment's (including consumables like drill bits, grinder blades, greases, paint brush, rollers, W.D 40 etc) to carry out operations smoothly.
6. Daily inventory management log (dead stock & new stock).

PUMP OPERATOR CUM TECHNICIAN:

1. Responsible for the pump machinery including inspecting pump, ensuring they are in working order.
2. A pump technician turns valves and begins pumps to regulate the flow of water.
3. Monitor gauges and inspects equipment to make sure that the flow is running smoothly.
4. A pump operator responsible for filling the underground tank and overhead tank.
5. A pump operator makes sure that all valves are open before starting the pump.
6. Trouble shooting and other add-on maintenance and repair work & determine technical issue.
7. Disassembling and reassembling pumps & other mechanical equipment like strainer, valves whenever required.
8. Day to day inspection and observation of the pump machinery in their work place.
9. Maintain accurate record.

WELDER:

1. Maintenance trash chute and their gates.
2. Provide lubrication grill gates.
3. Repaired/ maintenance of the S.S carpenter sheets on the doors and the S.S corners.
4. Weld/joints trolleys, grill gates, Statures, Beds, Barriers, Boiler fittings, S.S Doors and other metallic work.
5. Construct and repair outdoor equipment including ground equipment, Fences, Gates, Bumper Rail, Top Rail, etc.
6. Any other work regarding welding will be done.

PLUMBER:

1. Assemble, install, maintain, and pressure test all pipes, fittings, and fixtures of heating, water, drainage, sprinkler, and all pumps according to specifications and plumbing codes.
2. Determine sources of plumbing malfunctions and complete repairs as indicated or according to work orders.

3. Install and repair pipes, fittings, valves, fixtures, and plumbing system equipment, including sinks, commodes, water heaters, water softeners, etc.
4. Repair dishwashers and kitchen equipment that incorporate water consumption.
5. Periodic checking the pressure of water supply and PRV in the water lines.
6. Repaired/maintenance of MS pipe G.I pipe NRV, Strainer, valve etc. at pump room and overhead tank.
7. Receive and complete work orders.
8. Select material and hardware and make time and materials estimates.
9. Maintain accurate records on material and labor used.
10. Maintain inventory of district-owned tools, equipment, and materials.
11. Inspect jobs upon completion and ensure areas are clean.

CARPENTER:

1. Plan and complete construction of cabinets, shelves, and partitions from initial layout to assembly using oral instructions, plans, specifications, blueprints, and work orders.
2. Select material and hardware and make time and materials estimates.
3. Fabricate, repair, and replace wooden desks, chairs, shelving units, doors, windows, flooring, ceiling materials, building hardware, screens, plastic laminate, and other types of furniture.
4. Construct and repair outdoor equipment including ground equipment, Fences, Gates, Bumper Rail, Top Rail, etc.
5. Detect needed repairs on buildings, grounds, and equipment by following established inspection procedures.
6. Replace, repair, and finish furniture, cabinets, fixtures, woodwork, etc.
7. Receive and complete work orders.
8. Maintain accurate records on material and labor used.
9. Maintain inventory of district-owned tools, equipment, and materials.
10. Inspect jobs upon completion and ensure areas are clean and remove scraps and lumber as needed.
11. Respond to emergency calls as needed.
12. A furniture carpenter is **responsible for building and repairing various types of furniture**. A furniture carpenter builds or repairs wooden desks, chairs, shelving units and other types of furniture

ALUMINUM AND GLASS WORKER:

1. Will fabricate windows, doors etc.
2. Assemble and installation of glass and aluminum sliding door, windows, curtain walls, glass table and glass panel.
3. Fabrication and installation support of aluminum.
4. Installation of spider glass and frameless.
5. Support in fabrication and installation support of aluminum.
6. Mainly **responsible for cutting, measuring, and installing glass or mirrors in window frames, skylights, display cases and other structures**.

PAINTER:

1. Smooth and prepare surfaces for painting, including sanding and removing old paint.
2. Fill nail holes, cracks, and joints with putty, plaster, or other filler.
3. Tape, float, and texture walls and ceilings.
4. Select premixed paints or mix required portions of pigment, oil, and thinning and

- drying substances to prepare paint to match specified colors.
5. Paint surfaces, using brushes, spray gun, or paint rollers, and apply paint with cloth, brush, sponge, or fingers to create special effects.
 6. Erect scaffolding or set up ladder to perform tasks above ground level.
 7. Prepare all painted signs required by the district.
 8. Receive and complete work orders while maintaining accurate records on material and labor used.
 9. Maintain inventory of tools and assist with inventory control of materials and equipment.
 10. Inspect jobs upon completion and ensure areas are clean.
 11. Work with building principals and supervisors to complete assigned tasks.

FURNITURE POLISHER:

1. Preparing the wood by sanding and filling in holes and chips.
2. Removing old paint spots varnish or lacquer using paint stripper or sandpaper.
3. Mixing the stain and applying it to the wood, using a brush or by spraying it on.
4. Finishing the wood with varnishes, waxes and lacquers, and perhaps a fire-retardant finish which complies with the Health and Safety and Control of Substances Hazardous to Health (COSHH) legislation.
5. If required, polishing the wood with French polish (shellac dissolved in methylated spirits), using a padded cloth.
6. Keeping up to date with new techniques and equipment.

FALSE CEILING WORKER:

1. Measure the surface area of the ceiling to determine how much of a material will be necessary and use that information for accurate calculation.
2. Cut tiles according to specifications to ensure they fit in the desired space and then fasten tiles into the framing
3. Get rid of existing ceiling tiles to make way for the new ones and then safely remove tiles from the premises completely
4. Ensure perfect installation by trimming the edges of tiles when necessary
5. Coordinate with other professionals when additional work is necessary, such as working with a window installer to put in a skylight in the ceiling.
6. Repaired/ maintenance of metallic false ceiling, Gypsum False Ceilings and their respected network.

MASON:

1. Check work orders to determine work processes that need to be performed.
2. Measure distances from reference points in order to mark guidelines.
3. Use tools such as plump bobs and levels to perform work processes.
4. Calculate angles and courses.
5. Determine both vertical and horizontal alignment of courses.
6. Mix cement or mortar and spread it onto foundations.
7. Lay bricks according to set plans.
8. Lay patterns or foundations according to set instructions.
9. Cut bricks according to required sizes and shapes.
10. Spread mortar on surfaces, and clean excess mortar using trowels and other hand tools.

11. Determine the effect of heat, wind, and cold on the curing of concrete.
12. Direct and oversee the casting of concrete.
13. Supervise the work of laborers.
14. Produce rough concrete surfaces, and perform finishing work on them.
15. Clean chipped areas using tools such as wire brushes.
16. Observe surfaces in order to determine if they are rough or uneven.
17. Apply compounds, for example, hardeners and sealants to perform curing work.
18. Cut out damaged areas and reinforce rods.
19. Position rods in order to repair concrete.
20. Break up rock and asphalt as needed.
21. Perform waterproofing and restoring functions on concrete.
22. Handle repair and maintenance work on existing surfaces.

R.O PLANT OPERATOR:

1. Control treatment plant machines and equipment to purify and clarify water operates and controls electric motors pumps and valve to regulate flow of raw water into treating plant.
2. Provide specifically amount of chemicals like chlorine etc.
3. Make ensure that agitators are working and flow of chemical into the R.O.
4. Tums valve to regulate water through filter beds to remove impurities.
5. Pumps purified water into main water.
6. Monitors panel board and adjust controls to regulate flow gates.
7. Clean sand filters bed using back washing.
8. Test water samples to determine acidity, color and impurities using colors meter turbid meter and conductivity meter.

BOILER OPERATOR:

1. Check gas pressure.
2. Check water level.
3. Check burner blower meter.
4. Check steam pressure scot valve.
5. Check all valves.
6. Check Electric panel.
7. Check leakage all valve.
8. O.U Condition
9. Check full water tank.
10. Check glass level gauge.
11. Check all necessities equipment the boiler.
12. Daily log sheet check.
13. Daily activity report maintains.
14. Daily cleaning the plant room check.
15. Daily working task reporting incharge.
16. Daily operators and helpers work check.
17. Daily water level and TDS check.
18. Daily over all pipe leakage and insulation check.

2. SCHEDULE OF MAINTENANCE ACTIVITIES

Following are the preventive maintenance activities of individual equipment to be performed on daily/weekly, monthly, quarterly/bi-annual and/or annual basis. The detailed service report and log book of each activity should be maintained and submitted to the authorized representative of Procuring Agency on monthly basis.

Please ensure following during maintenance activities:

- Maintenance personnel must wear proper PPEs (personnel protective equipment) and carry basic tools bag, drill machine, grinder etc.
- Maintain log/check sheets of every job performed by the contractor.

3. MAINTENANCE PROCEDURE

Following maintenance activities will be carried on daily, quarterly, annual basis:

4. DAILY MAINTENANCE OF PUMPS:

1. Daily servicing and maintenance
2. General inspection & cleaning
3. Check oil level
4. Check pressure and leakage
5. Check temperature of motors.
6. Check any abnormal sound
7. Check all mechanical parts as well as electrical parts which may result problem.
8. All observations/activity must be noted in provided formats.

5. DAILY MAINTENANCE OF WOODEN ITEMS:

- 1) Servicing and maintenance of doors, cabinets, lockers, etc.
- 2) Replacement of floor machines and hinges where required.
- 3) General inspection of doors, cabinets, lockers, etc. in wards and other areas.
- 4) Daily checking of accessories and replacement where needed.
- 5) Any other task assigned by the in charge.

6. DAILY MAINTENANCE OF PLUMBING ITEMS:

- 1) Servicing and maintenance of PRV'S, gate valve, handle valves, etc.
- 2) Servicing and maintenance of plumbing fixtures, piping, accessories etc.
- 3) Servicing of pumps when needed.
- 4) Replacement of plumbing fixtures where required.
- 5) De clogging of basin mixture drains lines, commodes, etc.
- 6) De clogging of main drains lines inside the building in coordination with janitorial department.
- 7) Any other task assigned by the in charge.

7. DAILY MAINTENANCE OF PAINT & ART WORK:

- 1) Smooth and prepare surfaces for painting, including sanding and removing old paint where required.
- 2) Fill nail holes, cracks, and joints with putty, plaster, or other filler.
- 3) Tape, float, and texture walls and ceilings.
- 4) Select premixed paints or mix required portions of pigment, oil, and thinning and drying substances to prepare paint to match specified colors.
- 5) Paint surfaces, using brushes, spray gun, or paint rollers, and apply paint with cloth, brush, sponge, or fingers to create special effects.
- 6) Inspect jobs upon completion and ensure areas are clean.
- 7) Receive and complete work orders while maintaining accurate records of material and labor used.

8. DAILY MAINTENANCE OF METALIC & ANCILLARY ITEMS

1. Weld/joints trolleys, grill gates, Statures, Beds, Barriers, Boiler fittings, S.S Doors and other metallic work.
2. Repairing of outdoor equipment including ground equipment, Fences, Gates, Bumper Rail, Top Rail, etc.
3. Any other work regarding welding will be done.

9. DAILY MAINTENANCE OF MASONARY WORK:

1. Replacement of floor tiles, washroom tiles & any other repairing where required.
2. Brick laying & Plastering of damage areas where required.
3. Construction of any urgent need based work.

10.DAILY MAINTENANCE OF FALSE CEILING WORK:

1. Replacement of dirty/ damage gypsum tile sheets, washroom damp sheets & any other repairing where required.
2. Repairing/ replacement of false ceiling network channels.
3. Repairing of loose false ceiling network.

11.DAILY MAINTENANCE OF GLASS WORK:

1. Replacement of damage window glasses, fixed glass & any other repairing where required.
2. Repairing/ replacement of floor hinge machine where needed.
3. Repairing of loose glass doors, fixed panels any other repairing.

12.DAILY MAINTENANCE OF POLISH WORK:

1. All polished items should be clean and apply polish if necessary or any other repairing, where required.
2. Repairing of damaged door and fixed panels.
3. Any new task assigned by In-charge / Authorized Person.

13.QUARTERLY / ANNUAL MAINTENANCE (IF APPLICABLE):

1. Repair, Maintenance, Servicing & other work required in Operation Theatre should be done Quarterly or if needed early.
2. Repair, Maintenance, Servicing & other work required for Piston Pumps and Sump-Pits Pump should be done quarterly or if needed early.
3. Paint work in all parking area or on floors to maintain ambiance of Institute Quarterly or if needed early.
4. Replacement or maintenance of for ceiling and their network channels where applicable as per situation.
5. Cleaning and Maintenance of Plumbing ducts
6. Maintenance of PRV's
7. Maintenance of all doors of Institute on Annually Basis
8. Maintenance of Glass and Aluminum doors, windows and fixed partitions.

14.CORRECTIVE MAINTENANCE:

All types of complaints requiring any modification, servicing and any other works will be carried out by the contractor staff. The contractor must provide its staff with the proper tools and accessories to carry out the required works smoothly.

NOTE:

1. All the maintenance / servicing works should be carried out in such a way so that the equipment can be used for its optimum performances. Any work which is found to be required for optimum performance of the system has to be done.
2. Necessary care should be taken while carrying out all types of maintenance / servicing of equipment to avoid damages.
3. Spares & tools required to repair any articles to be maintained.
4. During routine / periodic maintenance, the contractor shall repair faulty parts / articles with his resources. Repair shall be done in such a way that it should not affect the performance & life of the articles, and while doing maintenance work, care should be taken.
5. All the works are to be done as per daily / monthly/ half yearly or yearly schedule. In case, if it requires the same work to be done in-between, same shall be attended.
6. The essence of the contract is to maintain the system in such a way that it gives desired optimum performance. Repair / replacement of all the parts / articles required for proper functioning, whether specified or not, are included in the scope of work.

15. TYPICAL LIST OF TOOLS FOR BUILDING MAINTENANCE**CIVIL & PLUMBING:**

The typical list of tools which the contractor must have but not limited to the following:

- Plier Set
- Cutter Plier Set
- Screwdriver Star Set
- Ring Spanner Set
- Star L-Key Set
- L. Key Set
- Box Spanner set
- Screw Drivers Set
- Hammer Cross Peen 1Kg
- Drill Machine
- Hill Tee drill
- Power Grinder
- Baby Grinder
- Aluminum Cutter
- Lubricating material
- Screw wrench up to 18”
- Pipe wrench up to 48”
- Hammer set
- D-Spanner Set
- Welding machine
- Electric wood cutter
- Electric Randa machine
- Electric hand cutter
- Saw
- Hand Randa
- Chorsi set
- Measuring Tape set
- Jhamboor

- Sand stone
- PPR Welding machine
- False ceiling wire cutter
- PPR Pipe Cutter upto 110mm
- Glass Holding Grips
- Glass Cutter

LEAVE POLICY FOR ABOVE WORKS A, B, C& D:

- One weekly off will be given to each employee
- Contractor will intimate us about its leave policy for its employees who will be deputed at SMBB Institute of Trauma for the operation & maintenance purpose
- Duty roster will be prepared by SMBB IT nominated officer / Supervisor / Asst. Manager / Manager.
- Only Provincial Government / Federal announced public holidays will be allowed (Intimated by nominated officer / Supervisor / Asst. Manager / Manager / In case of Emergency all leaves will be cancelled).
- Employees will have to be present on holiday as per duty roster and they will avail compensatory leave afterwards.
- Uninformed absence will not be allowed
- If an employee cannot make it to the duty due to genuine reason, then he has to inform his SMBB IT nominated officer / Supervisor / Asst. Manager / Manager via call or SMS
- If an employee wants to avail leave of longer duration or outstation leave due to genuine reason, then he has to submit a written application which will be forwarded and acknowledged by nominated officer / Supervisor / Asst. Manager / Manager approved by the Contractor Company.
- The contractor will have to provide replacement for the employee on leave
- SMBBIT nominated officer / Supervisor / Asst. Manager / Manager will have the authority to reject/cancel leaves without assigning any reason and employee will have to rejoin his duty within 2 days after rejection/cancellation of leaves has been communicated to him.

ATTENDANCE POLICY:

- All staff employed by contractor will mark their attendance on SMBBIT Biometric attendance system as per their Rota
- Grace period of 15 minutes will be allowed in each shift after which, the employee will be marked as **PL=Present but Late**
- If an employee comes late but within 1.5 hour of his original time, he'll be marked **PL=Present but Late**
- If an employee comes after 1.5 hour of his original shift timing, he'll be marked **Absent**
- After 2 PL marking, every 3rd late will be counted as **Absent**
- Habitual late comers will not be tolerated

WORK DISCIPLINE:

- If an employee found negligent of his duty, then on the recommendation of nominated officer / Supervisor / Asst. Manager / Manager will inform the contractor representative of the same and a showcase letter will be issued to the concerned employee from the office of contractor representative, copy of which will be given to the nominated officer / Supervisor / Asst. Manager / Manager.

- The negligent employee after receiving show cause letter, will have to provide written explanation, acceptance of which will be at the sole discretion of nominated officer / Supervisor / Asst. Manager / Manager.
- After two show cause letters, if the employee still found guilty for the third time, then a final warning letter will be issued and the employee will be asked to leave on the fourth instance and contractor will have to provide his replacement
- Eating Pan, Chewing Tobacco and Smoking at the workplace will not be allowed

GENERAL CONDITIONS:

- Contractor must abide by child labor and minimum wage law
- The Contractor shall provide complete details of staff & their telephone numbers to the SMBBIT nominated officer / Supervisor / Asst. Manager / Manager.
- The Contractors should ensure all safety precautions for its staff
- The Contractor shall ensure on its part that its team is equipped with proper hand tools and required equipment
- The Contractor will provide uniforms, protective clothing and Identity Cards to each and every deployed staff
- Contractor will be responsible for any kind of accident, injuries, temporary and permanently disabilities of its employees. Procuring Agency will investigate the incident. If negligence or violence of safety rules is determined, Procuring Agency will impose penalty on the contractor
- Contractor will immediately have to provide replacement for the its resigned/dismissed employees
- Necessary care should be taken while carrying out any repair, maintenance & servicing activity to avoid any damage
- Any mishap during occurred due to negligence / inexperience during any repair, maintenance & servicing activity will purely be the responsibility of contractor

SAFETY OF CONTRACTOR EMPLOYEES:

Contractor will have to follow the safety protocols for its employees as defined by Fire & Safety department of SMBB IT time to time.