

PLACEHOLDERIMAGE

**Z.H. College of Engineering & Technology, Aligarh Muslim
University, Aligarh**
Aligarh Muslim University, Aligarh-202002, UP

**INVITATION FOR QUOTATIONS FOR CONSTRUCTION OF
CIVIL WORKS UNDER PROCEDURES**

To

Dear Sirs,

Sub : INVITATION FOR QUOTATIONS FOR CONSTRUCTION OF
Extension Building _MED

1. You are invited to submit your most competitive quotation for the following works:-

Brief Description of the Works	Approximate value of Works (Rs.)	Period of Completion (In Days)
Extension of Building in Mechanical Engg. As per Appendix-A	-----	90

2. Government of India has received a credit from the International Development Association (IDA) in various currencies equivalent to US\$ **24300000000** towards the cost of the **Technical Education Quality Improvement Programme[TEQIP]-Phase II** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
- 3¹. The _____ Project in _____ state is being implemented by _____, which is an autonomous society registered under the Societies Registration Act.
4. To assist you in the preparation of your quotation, we are enclosing the following:
- Layout Drawings of the works;
 - Structural Details;
 - Detailed Bill of Quantities, with estimated rates and prices;
 - Technical Specifications;
 - Instructions to Bidders (in two sections).
 - Draft Contract Agreement format, which will be used for finalizing the agreement for this Contract.
5. You are requested to provide your offer latest by **16:00 hrs. on 20-Mar-2014**
6. Quotations will be opened in the presence of Bidders or their representatives who choose to attend at **16:00 AM/PM on 20-Mar-2014** in the office of **Aligarh Muslim University, Aligarh-202002, UP**
7. We look forward to receiving your quotations and thank you for your interest in this project.

Name: **Z.H. College of Engineering & Technology**, Address: **Aligarh Muslim University, Aligarh-202002, UP.** Tel. No: **09719462637** Fax No.

¹ Delete if inapplicable

Instructions to Bidders

SECTION - A

1. Scope of Works

The **Z.H. College of Engineering & Technology, Aligarh Muslim University, Aligarh** invites quotations for the construction of works as detailed in the table given below

Brief Description of the Works	Approximate value of Works (Rs.)	Period of Completion (In Days)
Extension of Building in Mechanical Engg.		90

The successful bidder will be expected to complete the works by the intended completion date specified above.

2. Qualification of the bidder: The bidder shall provide qualification information which shall include:-

- (a) Total monetary value of construction works performed for each year of the last 3 years;
- (b) Income tax clearance certificate from the concerned IT circle;
- (c) Report on his financial standing; and
- (d) Details of any litigation, current or during the last 3 years in which the bidder is involved, the parties concerned and disputed amount in each case.

3. To qualify for award of the contract the bidder:-

- (a) should have satisfactorily completed as a prime contractor at least one similar work of value not less than Rs. 500,000 in the last three years;
- (b) should possess valid electrical license for executing building electrification works (in the event of the works being sub - contracted, the sub-contractor should have the necessary license);
- (c) should possess required valid license for executing the water supply/sanitary works (in the event of the works being sub-contracted, the sub-contractor should have the necessary license);

4. Bid Price

- a) The contract shall be for the whole works as described in the Bill of quantities, drawings and technical specifications. Corrections, if any, shall be made by crossing out, initialling, dating and re writing.
- b) All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price.
- c) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- d) The rates should be quoted in Indian Rupees only.

5. Submission of Quotations

5.1 The bidder is advised to visit the site of works at his own expense and obtain all information that may be necessary for preparing the quotation.

5.2 Each bidder shall submit only one quotation.

5.3 The quotation submitted by the bidder shall comprise the following :-

- (a) Quotation in the format given in Section **B**.
- (b) Signed Bill of Quantities ; and

- (c) Qualification information form given in Section B duly completed.
- 5.4** The bidder shall seal the quotation in an envelope addressed to the **Aligarh Muslim University, Aligarh-202002, UP** (Purchaser). The envelope will also bear the following identification:-
- Quotation for **Extension Building _MED** (Name of the Contract)
 - Do not open before **16:00 20-Mar-2014** (time and date of quotation opening).
- 5.5** Quotations must be received in the office of the **Z.H. College of Engineering & Technology, Aligarh Muslim University, Aligarh** (Employer) not later than the time and date given in the letter of invitation. If the specified date is declared a holiday, quotations shall be received upto the appointed time on the next working day.
- 1.6** Any quotation received by the **Z.H. College of Engineering & Technology, Aligarh Muslim University, Aligarh**, (Employer) after the deadline for submission of quotations will be rejected and returned unopened to the bidder.
- 6. Validity of Quotation**
Quotation shall remain valid for a period not less than **55** days after the deadline date specified for submission.
- 7. Opening of Quotations**
Quotations will be opened in the presence of bidders or their representatives who choose to attend on the date and time and at the place specified in the letter of invitation.
- 8.** Information relating to evaluation of quotations and recommendations for the award of contract shall not be disclosed to bidders or any other persons not officially concerned with the process until the award to the successful bidder is announced.
- 9. Evaluation of Quotations**
The Employer will evaluate and compare the quotations determined to be substantially responsive i.e. which
- (a) meet the qualification criteria specified in clause 3 above;
 - (b) are properly signed ; and
 - (c) conform to the terms and conditions, specifications and drawings without material deviations.
- 10. Award of contract**
The Employer will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price and who meets the specified qualification criteria.
- 10.1** Notwithstanding the above, the Employer reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
- 10.2** The bidder whose bid is accepted will be notified of the award of contract by the Employer prior to expiration of the quotation validity period.
- 11. Performance Security**
Within 15 days of receiving letter of acceptance, the successful bidder shall deliver to the **Z.H. College of Engineering & Technology, Aligarh Muslim University, Aligarh** (Employer) the performance security (either a bank guarantee or a bank draft in favour of the Employer) for an amount equivalent of 3 % of the contract price. The Performance Security shall be valid till the expiry of the period of maintenance of the work, specified in clause 12.

12. Period of Maintenance :

The "Period of Maintenance" for the work is six months from the date of taking over possession or one full monsoon season whichever occurs later. During the period of maintenance, the contractor will be responsible for rectifying any defects in construction free of cost to the Employer.

- 13.** Purchase of all construction materials including cement and steel as per the specifications (ISI certification marked goods wherever available) shall be the responsibility of the contractor.

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SECTION - B

- 1. Format for Qualification Information.**
- 2. Format for Submission of Quotation.**
- 3. Format of Letter of Acceptance.**

QUALIFICATION INFORMATION

1 For Individual Bidders

1.1 Principal place of business: _____

Power of attorney of signatory of Quotation.
[Attach copy]

1.2 Total value of Civil Engineering construction work performed in the last three years (in Rs. Lakhs)

19__	_____
19__	_____
19__	_____

1.3 Work performed as prime contractor (in the same name) on works of a similar nature over the last three years.

Project Name	Name of Employer	Description of work	Contract No.	Value of contract (Rs. Lakhs)	Date of issue of work order	Stipulated period of completion	Actual date of completion	Remarks explaining reasons for delay and work completed

Existing commitments and on-going works:

Description of Work	Place & State	Contract No. & Date	Value of Contract (Rs. Lakh)	Stipulated period of completion	Value of works* remaining to be completed (Rs. Lakhs)	Anticipated date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)

* Enclose a certificate from Engineer concerned.

1.4 Proposed subcontracts and firms involved.

Sections of the works	Value of Sub-contract	Sub-contractor (name & address)	Experience in similar work
*	*	*	*
*	*	*	*
*	*	*	*

1.5 Evidence of access to financial resources to meet the requirements of working capital: cash in hand, lines of credit, etc. List them below and attach copies of support documents.

1.6 Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.

1.7 Information on litigation history in which the Bidder is involved.

Other party (ies)	Employer	Cause of dispute	Amount involved	Remarks showing present status

QUOTATION

*

Description of the Works:

To:

Subject : Construction of

Reference : Letter No.....dated.....from.....

Sir,

We offer to execute the Works described in your letter referred to above in accordance with the Conditions of Contract enclosed therewith at percentage above / below the estimated rates, i.e., for a total Contract Price of -

Rs. ** _____ [in figures]
Rs. _____ [in words].

This quotation and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any quotation you receive.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

We hereby confirm that this quotation is valid for 45 days as required in Clause 6 of the Instructions to Bidders.

Yours faithfully,

Authorized Signature : _____ Date: _____

Name & Title of Signatory : _____
Name of Bidder : _____
Address : _____

* To be filled in by the Employer before issue of the Letter of Invitation.

** To be filled in by the Bidder, together with his particulars and date of submission at the bottom of this Form.

**LETTER OF ACCEPTANCE
CUM NOTICE TO PROCEED WITH THE WORK**

(LETTERHEAD OF THE EMPLOYER)

Dated : _____

[Name and address of the Contractor]

To : _____

Dear Sirs,

This is to notify you that your Quotation dated _____ for execution of the _____ for the contract price of Rupees _____ [amount in words and figures], is hereby accepted by us.

You are hereby requested to furnish performance security for an amount of Rs. _____ (equivalent to 3% of the contract price) within 15 days of the receipt of the letter. The Performance Security in the form of Bank guarantee or a Bank draft in favour of(Employer) shall be valid till the expiry of the period of maintenance i.e. upto _____. Failure to furnish the Performance Security will entail cancellation of the award of contract.

You are also requested to sign the agreement form and proceed with the work not later than _____ under the instructions of the Engineer, _____ and ensure its completion within the contract period.

With the issuance of this acceptance letter and your furnishing the Performance Security, contract for the above said work stands concluded.

Yours faithfully,

**Authorized Signature
Name and title of Signatory**

Draft Agreement form for Construction through National Shopping

ARTICLES OF AGREEMENT

This deed of agreement is made in the form of agreement on _____ day _____ month _____ 199 ____, between the _____ (Employer) or his authorized representative (hereinafter referred to as the first party) and _____ (Name of the Contractor), S/O _____ resident of _____ (hereinafter referred to as the second party), to execute the work of construction of _____ (hereinafter referred to as works) on the following terms and conditions.

2. Cost of the Contract

The total cost of the works (hereinafter referred to as the "total cost") is Rs. ____ as reflected in Annexure - A.

3.1 Payments under its contract:

Payments to the second party for the construction work will be released by the first party in the following manner:-

On signing of agreement	:	25% of total cost
On reaching plinth level (first stage)	:	25% of the total cost
On reaching lintel level (second stage)	:	25% of the total cost
On reaching roof level (third stage)	:	15% of the total cost
Plastering and completion of whole work (fourth stage)	:	10% of the total cost

(The above has been drafted for construction of school buildings; modify this suitably for other works)

3.2 Payments at each stage will be made by the first party:

- on the second party submitting an invoice for an equivalent amount ;
- on certification of the invoice (except for the first installment) by the engineer nominated by the first party with respect to quality of works in the format in Annexure - B; and
- upon proper and justified utilization of at least 50 % of the previous installment and 100 % of any prior installment.

4. Notice by Contractor to Engineer

The second party, on the works reaching each stage of construction, issue a notice to the first party or the Engineer nominated by the first party (who is responsible for supervising the contractor, administering the contract, certifying the payments due to the contractor, issuing and valuing variations to the contract, awarding extensions of time etc.), to visit the site for certification of stage completion. Within 15 days of the receipt of such notice, the first party or the engineer nominated by it, will ensure issue of stage completion certificate after due verification.

5. Completion time

The works should be completed in _____ (months/weeks/days) from the date of this Agreement. In exceptional circumstances, the time period stated in this clause may be extended in writing by mutual consent of both the parties.

6. If any of the compensation events mentioned below would prevent the work being completed by the intended completion date, the first party will decide on the intended completion date being extended by a suitable period :

- The first party does not give access to the site or a part thereof by the agreed period.

- b) The first party orders a delay or does not issue completed drawings, specifications or instructions for execution of the work on time.
 - c) Ground conditions are substantially more adverse than could reasonably have been assumed before issue of letter of acceptance and from information provided to second party or from visual inspection of the site.
 - d) Payments due to the second party are delayed without reason.
 - e) Certification for stage completion of the work is delayed unreasonably.
7. Any willful delay on the part of the second party in completing the construction within the stipulated period will render him liable to pay liquidated damages. @ Rs.* per day which will be deducted from payments due to him. The first party may cancel the contract and take recourse to such other action as deemed appropriate once the total amount of liquidated damages exceeds 10% of the contract amount.
(Note : The amount of liquidated damages per day should be determined at 0.07 % of the contract value of the works and indicated here).
- 8. Duties and responsibilities of the first party**
- 8.1 The first party shall be responsible for providing regular and frequent supervision and guidance to the second party for carrying out the works as per specifications. This will include written guidelines and regular site visit of the authorized personnel of the first party, for checking quality of material and construction to ensure that it is as per the norms.
 - 8.2 The first party shall supply 3 sets of drawings, specifications and guidelines to the second party for the proposed works.
 - 8.3 Possession of the site will be handed over to the second party within 10 days of signing of the agreement.
 - 8.4 The Engineer or such other person as may be authorized by the first party shall hold meeting once in a month where the second party or his representative at site will submit the latest information including progress report and difficulties if any, in the execution of the work. The whole team may jointly inspect the site on a particular day to take stock of activities.
 - 8.5 The Engineer shall record his observations/instructions at the time of his site visit in a site register maintained by the second party. The second party will carry out the instructions and promptly rectify any deviations pointed out by the engineer. If the deviations are not rectified, within the time specified in the Engineer's notice, the first party as well as the engineer nominated by it, may instruct stoppage or suspension of the construction. It shall thereupon be open to the first party or the engineer to have the deviations rectified at the cost of the second party.
- 9. Duties and responsibilities of the second party**
- 9.1 The second party shall :
 - a) take up the works and arrange for its completion within the time period stipulated in clause 5;
 - b) employ suitable skilled persons to carry out the works ;
 - c) regularly supervise and monitor the progress of work ;
 - d) abide by the technical suggestions / direction of supervisory personnel including engineers etc. regarding building construction ;
 - e) be responsible for bringing any discrepancy to the notice of the representative of the first party and seek necessary clarification ;
 - f) ensure that the work is carried out in accordance with specifications, drawings and within the total of the contract amount without any cost escalation ;
 - g) keep the first party informed about the progress of work ;
 - h) be responsible for all security and watch and ward arrangements at site till handing over of the building to the first party ; and

- i) maintain necessary insurance against loss of materials/cash, etc. or workman disability compensation claims of the personnel deployed on the works as well as third party claims.
- f) Pay all duties, taxes and other levies payable by construction agencies as per law under the contract (First party will effect deduction from running bills in respect of such taxes as may be imposed under the law).

10. Variations / Extra Items

The works shall be carried out by the second party in accordance with the approved drawings and specifications. However, if, on account of site conditions or any other factors, variations are considered necessary, the following procedure shall be followed:-

- a) The second party shall provide the Engineer with a quotation for carrying out the Variation when requested to do so by the Engineer. The Engineer shall assess the quotation, which shall be given within seven days of the request before the Variation is ordered.
- b) If the quotation given by the second party is unreasonable, the Engineer may order the Variation and make a change to the Contract Price which shall be based on Engineer's own forecast of the effects of the Variation on the Contractor's costs.
- c) The second party shall not be entitled to additional payment for costs which could have been avoided by giving early warning.

11. Securities

The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee.

12. Termination

12.1 The Employer may terminate the Contract if the other party causes a fundamental breach of the Contract.

12.2 Fundamental breaches of Contract include, but shall not be limited to the following:

- (a) the contractor stops work for 28 days and the stoppage has not been authorized by the Engineer;
- (b) the Contractor has become bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (c) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- (d) the Contractor does not maintain a security which is required;

12.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.

12.4 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site as soon as reasonably possible.

13. Payment upon Termination

13.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law.

13.2 If the Contract is terminated at the Employer's convenience, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

14. Dispute settlement

If over the works, any dispute arises between the two parties, relating to any aspects of this Agreement, the parties shall first attempt to settle the dispute through mutual and amicable consultation.

In the event of agreement not being reached, the matter will be referred for arbitration by a Sole Arbitrator not below the level of retired Superintending Engineer, PWD to be appointed by the first party. The Arbitration will be conducted in accordance with the Arbitration and Conciliation Act, 1996. The decision of the Arbitrator shall be final and binding on both the parties.

BILL OF QUANTITIES

Sl. No.	Description of Work	Qty.	Unit	Estimated Cost (Rs.)		Amount
				In figure	In Words	

Gross Total Cost : Rs.

We agree to execute the works in accordance with the approved drawings and technical specifications at percentage above/ below the estimated rates, i.e., for a total contract price of Rs.(amount in figures) (Rs. amount in words).

Signature of Contractor

Format of certificate

Certified that the works up to ----- level in respect of construction of ----- at ----- have been executed in accordance with the approved drawing and technical specifications.

Signature
Name & Designation
(Official address)

Place :
Date :

Office seal

Appendix-A

**NAME OF WORK: REVISED ESTIMATE FOR EXTENSION OF MECHANICAL ENGINEERING
LAB., ZHCET**

SUMMARY (CIVIL WORK)

S.No	HEAD / SUB HEAD		AMOUNT
A	PLAIN AND REINFORCED CEMENT CONCRETE	Rs.	
B	BRICK WORK	Rs.	
C	STEEL WORK	Rs.	
D	FLOORING	Rs.	
E	FINISHING	Rs.	
F	ROOFING AND WATERPROOFING WORK	Rs.	
G	MISCELLANEOUS	Rs.	

TOTAL A Rs.
 Add 6.71% for Cost Index on DSR 2012 at Aligarh _____
B Total=
 Add 12.5% for Internal Electrification (B) _____
C Total=
 Add 5% Contingency on (C)=
 Add 2.6% Architect's Fee on (A)= Rs:
 Add 10% for Furniture on (B)= Rs: _____
D Total=
 Add 4% for VAT on (D)= Rs: _____
Total=
 Add 1% Labour Cess = Rs: _____
Total = Rs: _____

University Engineer

Assistant Engineer

Junior Engineer (T)

Junior Engineer

**REVISED ESTIMATE FOR EXTENSION OF MECHANICAL ENGINEERING LAB.
AT FIRST FLOOR, ZHCET**

SN.	DSR NO.	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	AMOUNT
A		PLAIN & REINFORCED CEMENT CONCRETE WORK				
1	DSR 12 A.R	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level 1:5:10 (1 Cement : 5 fine sand : 10 graded Brick Ballast 40 mm nominal size)	4.20	Cum	2594.39	
2	(5.2.2-5.2.3/5.2.3)x100= 10%,5.3x10%	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	11.50	Cum	5896.42	
3	4.1 4.1.3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	1.75	cum	4514.05	
4	5.9	Centering and shuttering including strutting, propping etc. and removal of forms for :				
a)	5.9.3	Suspended floors, roofs, landings, balconies and access platforms.	48.00	Sqm	311.20	
b)	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	42.00	Sqm	262.25	
c)	5.9.16	Edges of slabs and breaks in floors and walls				
	5.9.16.1	Under 20 cms. Wide	17.00	Meter	99.45	
d)	5.9.19	Weather shade, Chajjas, corbels etc., including edges	1.00	Sqm	411.10	
5	5.22.6	Reinforcement for RCC work including strengthening, cutting, bending, placing in position and binding all complete.	1500.0	Kg	62.25	
TOTAL CARRIED OVER TO SUMMARY					Rs.	

SN.	DSR NO.	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	AMOUNT
B		BRICK WORK				
6	6.4	Brick work with F.P.S. bricks of class designation 75 in superstructure above plinth level upto floor V level in all shapes and sizes in:				
	6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	16.00	Cum	3876.15	

TOTAL CARRIED OVER TO SUMMARY

Rs.

C		STEEL WORK & WOOD WORK				
7	10.25	Structural steel work welded in built up sections / framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
	10.25.2	In Gratings, Frames, guard bar, ladder, railings, brackets, gates & similar works.	85.00	Kg	77.90	
8	10.13.1	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10 cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with dash fastener or with fixing clips or with bolts and nuts as require including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.	55.00	Kg	73.45	
9	9.51	Providing and fixing fly proof galvanised M.S. wire gauze to windows and clerestory windows using galvanised M.S. wire gage with average width of aperture 1.4 mm in both directions with wire of dia. 0.63 mm.				
	9.51.1	With 2nd class teak wood beading 62x19 mm	0.00	Sqm	758.20	

SN.	DSR NO.	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	AMOUNT
10	10.11.1	P/F made ISI marked steel glazed doors, windows and ventilators side/top/cntr hung with beading and all members such as K 11 B and K 12 B etc. complete of standard rolled steel sections, joints mitred and flash cut welded and sash bars tenoned and riveted with 15x3mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including P/F of hinges, pivots, float glass panes with glazing clips and special metal sash putty of approved make and a priming coat of approved steel primer excluding cost of metal beading and other fittings except necessary hinges or pivots complete as per approved design.	135.00	Kg	96.45	
11	14.5	Renewing glass panes, with putty and nails wherever necessary:				
	14.5.1	Float Glass panes of thickness 4 mm.	9.00	Sqm	585.20	
12	9.21.1 - 9.15.1.1	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters : 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	6.65	Sqm	1436.25	
13	9.72	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :				
a)	9.97.2	250 x 10 mm	3.00	Nos	86.45	
b)	9.97.4	150 x 10 mm	18.00	Nos	59.00	
14	9.96	Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete :				
	9.96.1	300x16 mm	5.00	Nos	203.80	
15	9.10	Providing and fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc. complete.				
	9.101.1	Single rubber stopper	4.00	Each	28.60	

SN.	DSR NO.	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	AMOUNT
16	9.10	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :				
	9.100.1	125 mm	20.00	Each	62.50	

TOTAL CARRIED OVER TO SUMMARY

Rs.

D		FLOORING				
17	11.41.2	Providing and laying polished vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorptions less than 0.08% and conforming to 15622 of approved make in all colours and shades, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) including grouting the joints with white cement and matching pigment etc. complete. Size of Tile 60x60 cm	40.00	Sqm	1337.10	

TOTAL CARRIED OVER TO SUMMARY

Rs.

E		FINISHING				
18	13.16.1	6 mm cement plaster 1:3 (1 cement : 3 fine sand grade-IV) to RCC work.	48.00	Sqm	101.00	
19	13.4.2	12 mm cement plaster 1:6 (1 Cement : 6 Coarse Sand)	75.00	Sqm	121.05	
20	13.5.2	15 mm cement plaster 1:6 (1 Cement : 6 Coarse Sand) on the rough side of single or half brick walls.	15.00	Sqm	140.45	
21	13.12	18mm cement plaster in two coats under layer 12mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.	70.00	Sqm	198.25	
22	13.80	P/A white cement based putty of avg. thickness 1 mm of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete:	120.00	Sqm	96.05	
23	13.46	Finishing walls with Acrylic Smooth exterior paint of required shade				
	13.46.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including base coat of water proofing cement paint applied @2.20kg/10 sqm)	95.00	Sqm	67.50	

SN.	DSR NO.	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	AMOUNT
24	13.41.1	Distemping with oil bound washable distemper of approved brand and manufacture to give an even shade on New work (two or more coats) over and including water thinnable priming coat with cement primer.	120.00	Sqm	64.65	
25	13.61.1	Painting with synthetic enamel paint of approved brand and manufacture of required colour two or more coats on new work over and under coat of suitable shade with ordinary paint of approved brand and manufacture to give an even shade.	35.00	Sqm	53.85	
26	13.9	Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement				
	13.9.1	12 mm cement plaster	1.00	Sqm	173.10	

TOTAL CARRIED OVER TO SUMMARY

Rs.

F ROOFING & WATER PROOFING WORK

27	15.26	Demolishing brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	42.00	Sqm	29.05	
28	15.27	Demolishing mud phaska in terracing and disposal of material within 50 metres lead	4.20	Cum	251.40	
29	M/R	P/F L.D.P. film 400 Microne	43.00	Sqm	29.18	
30	12.15	Painting top of roofs with bitumen of approved quality at 17kg per 10sqm impregnated with a coat of coarse sand at 60 cudm per 10sqm including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete				
	12.15.1	With residual type petroleum bitumen of penetration 80/100	43.00	Sqm	105.50	
31	12.16	10cm thick (average) mud phaska of damped brick earth on roofs laid to slope consolidated and plastered with 25mm thick mud mortar mixed with bhusa at 35 kg per cum of earth and gobi leaping with mix 1:1 (1 clay : 1 cow dung) and covered with flat tile bricks of class designation 100 grouted with cement mortar 1: 3 (1 cement : 3 fine sand) mixed with 2 % of integral water proofing compound by weight of cement and finished neat:				
	12.16.1	With F.P.S. brick tiles	42.00	Sqm	375.60	

SN.	DSR NO.	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	AMOUNT
32	14.18	Flush pointing with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement for flat tile bricks on top of mud phaska:				
	14.18.1	With F.P.S. brick tiles	42.00	Sqm	42.65	
33	12.21	Providing gola 75 x 75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design in 75 x 75mm deep chase.	28.00	Mtr	109.05	
34	12.22	Making khurrah 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1mx1mx400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete.	2.00	Each	148.75	
35	12.41	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. (i) Single socketed pipes				
	12.41.2	110 mm diameter	7.00	Mtr	206.90	
36	12.42	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised - Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.				
	12.42.5	Bend 87.5°				
	12.42.5.2	110 mm bend	4.00	Each	156.95	
37	12.43	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50mm hard wood plugs, screwed with M.S. screws of required length including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the walls etc. complete.				
	12.43.2	110 mm	6.00	Each	144.60	

TOTAL CARRIED OVER TO SUMMARY

Rs.

SN.	DSR NO.	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	AMOUNT
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G MISCELLANEOUS WORK

38	11.36	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacture) of approved make in all colours, shades except begundy, bottle green, black of any size as approved by Engineer-in-charge in skirting, risers of steps and dados over 12 mm thick bed of cement mortar 1: 3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	17.00	Sqm	724.25	
39	11.38	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours, shades except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1: 4 (1 cement: 4 coarse sand) including pointing the joints with white cement and matching pigment etc. complete:	4.85	Sqm	772.90	
40	17.7	Providing and fixing wash basin with C.I brackets, 15 mm C.Pn brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require				
	17.7.4	Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap	1.00	Each	1460.50	
41	17.28	Providing and fixing P.V.C waste pipe for sink or wash basin including P.V.C waste fittings complete:				
	17.28.1	Semi rigid pipe				
	17.28.1.1	32 mm dia.	2.00	Each	59.50	
42	17.31	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	1.00	Each	674.05	
43	17.35	Providing and fixing soil, waste and vent pipes :				
	17.35.1	100 mm dia.				
	17.35.1.1	Sand cast iron S&S pipe as per IS: 1792.	10.00	Mtr	734.30	
44	17.36	Providing and filling the joints with spun yarn cement slurry and cement mortar 1:2 (1 cement :2 fine sand) in S.C.I./ C.I. pipes				

SN.	DSR NO.	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	AMOUNT
45	17.36.2	100 mm dia pipe	3.00	Each	56.00	
	17.37	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.				
46	17.37.1	For 100 mm dia. pipe	6.00	Each	112.50	
	17.39	Providing and fixing plain bend of required degree.				
	17.39.1	100 mm				
47	17.39.1.1	Sand cast iron S&S as per IS: 1792.	3.00	Each	267.30	
	17.38	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete				
	17.38.1	100 mm				
48	17.38.1.1	Sand cast iron S&S as per IS: 1792.	2.00	Each	310.30	
	17.44	Providing and fixing single equal plain junction of required degree.				
	17.44.1	100x100x100mm				
49	17.44.1.1	Sand cast iron S&S as per IS: 1792.	1.00	Each	383.45	
	17.58	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter:				
	17.58.1	100 mm	8.00	Each	207.85	
50	17.60	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
	17.60.1	100 mm inlet and 100 mm outlet				
	17.60.1.1	Sand Cast Iron S&S as per IS: 3989.	2.00	Each	801.70	
51	18.10	Providing and fixing G.I. pipes complete with G.I. fittings and clamps,including cutting and making good the walls etc.				
	18.10.2	20mm dia. nominal bore	2.00	Mtr	188.05	
52	18.11	Concealed pipe including painting with anti corrosive bitumastic paint, cutting chases and making good the wall				
	a	15 mm dia nominal bore	8.00	Mtr	230.00	
	b	20 mm dia nomina bore	2.00	Mtr	252.20	
53	18.49	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931				
	18.49.1	15 mm nominal bore	1.00	Each	397.50	

SN.	DSR NO.	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	AMOUNT
54	18.53	Providing and fixing C.P. brass angle valve for basin mixer and gyser points of approved quality conforming to IS:8931				
	18.53.1	15 mm nominal bore	3.00	Each	449.35	
55	18.18	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete:				
	18.18.3	25 mm nominal bore	2.00	Each	421.65	
56	18.21	Providing and fixing uplasticised PVC connection pipe with brass unions				
	18.21.2	45 cm length				
	18.21.2.1	15 mm nominal bore	2.00	Each	61.70	
57	17.1	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required:				
	17.1.1	White Vitreous china Orissa pattern W.C. pan.of size 580x440mm with integral type foot rests	1.00	Each	2964.10	
58	17.4	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and GI clamps complete, including painting of fittings and bracktes, cutting and making good the walls and floors wherever required:				
	17.4.2	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	1.00	Each	4652.80	
59	15.2	Demolishing cement concrete including disposal of material within 50 metres lead as per direction of Engineer-in-charge :				
	15.2.1	1:3:6 or richer mix	0.50	Cum	671.05	
60	10.22	Welding by gas or electric plant including transportation of plant at site etc. complete.	400.00	cm length	2.20	
61	15.7	Demolishing brick work including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge:				
	15.7.4	In cement mortar	6.25	Cum	556.60	
62	1.10	Carriage of Materials: (Up to 2 Kms lead)				
	1.1.8	Bricks	3200.00	per 1000	200.41	

Rs:

Internal Electrification Extension for Mechanical Engineering faculty of Engineering & technology AMU Aligarh.

S.No	Description of Item	Quantity	Rate	Amount
01.	Wiring for light point/fan point/exhaust fan With 1.5 sq.mm FR PVC insulated copper Conductor single core cable in surface/recessed Medium class PVC conduit, with piano type Switch, phenolice laminated sheet, suitable Size M.S box and ear thing the point with 1.5 sq.mm FR PVC insulated copper conductor Single core cable etc as required. (CPWD 2012	1.8/2)		
	(a) Group B (SOR 1.8.2/2)	15Nos		
02.	Wiring for light/ power plug with 2x4 sq.mm FR PVC insulated Copper conductor single core cable in surface/ recessed Medium class PVC conduit along with 1 No 4 sq.mm FR PVC insulated copper conductor single core cable Etc as required. (SOR 1.12/3)	40Metre		
03.	Wiring for light/power plug with 4x4 sq.mm FR PVC insulated copper conductor single core cable in surface/recessed medium class PVC conduit along with 2 Nos 4sq.mm FR PVC insulated copper conductor single core cable etc as required. (SOR 1.13/3)	40Metre		
04.	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. (SOR 1.14/3)			
	(a) 2x10sq.mm+1x10sq.mm ear thing wire (SOR 1.14.5/3)	20Metre		
05.	Supplying and fixing stepped type electronic fan regulator on the exiting modular plate switch box including connections but excluding modular plate etc as required. (SOR 1.25/7)	03Nos		

S.No	Description of Item	Quantity	Rate	Amount
06.	Supplying and fixing metal box of 150mmX75mm X65mmdeep (nominal size)on surface or in recess with suitable size of phenolic laminated sheet cover if front including providing and fixing 3 pin 5/6 amp piano type switch connection painting etc as required. (for light plug to be used in noon residential building) (SOR 1.29/7)	04Nos		
07.	Supplying and fixing metal box of 180mm x 100mm x 60mm deep (normal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 5/6& 15/16 amp socket out late and 15/16 amp socket piano type switch connection painting etc required. (SOR 1.30/7)	04Nos		
08.	Installation, testing and commissioning of pre-wired, fluorescent fitting/ compact fluorescent fitting of all types with all accessories and tube etc including supplying and fixing ball and socket arrangement 2 no down rods of 20mm dia x 1.6mm thick steel conduit up to 30cm length, painting and wiring the down rods and connection with 1.5sq.mm FR PVC insulated copper conductor single core cable and ear thing etc required. (SOR 1.42/8)	06Nos		
09.	Providing and fixing extra conduit down rod of 20mm dia 2x10x cm length wiring with 2x1.5sq.mm FFR PVC insulated copper conductor, single core cable including painting etc. as required. (Note: more than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored) (SOR 1.43/9)	06Nos		
10.	Installations testing and commissioning of ceiling fan including wiring the down rods of standard length (up to 30cm) 1.5sq.mm FR PVC including copper conductor single core cable including providing and fixing phenolic laminated sheet cover on the fan box etc as required. (SOR 1.45/9)	03Nos		

S.No	Description of Item	Quantity	Rate	Amount
11.	Supplying and fixing extra conduit down rod of 20cm length G.I pipe 15cm dia heavy gauge including painting etc. as required (Note more than 5cm length shall be rounded to the nearest 10cm and 5cm or less shall be ignored) (SOR 1.48/9)	03Nos		
12.	Supplying and fixing following way, single distribution board, 240 volt on surface / recess, completed with tinned copper bus bar earth bar din bar, interconnections, power painted including ear thing etc as required. (But without MCB/RCCB/ISOLATOR) (SOR 2.3/10) (a) 2+6 Way, Double door (SOR 2.3.6/11)	01Nos		
13.	Supplying and fixing 5 amps to 32 amps rating 240/415 volts isolator in the exiting MCB DB completed with connection testing and commission etc. as required. (SOR 2.10/13) (a) Single pole (SOR 2.10.1/13)	06Nos		
14.	Supplying and fixing following rating double pole 240 volts isolator in the exiting MCB DB with connection testing and commissioning etc. as required. (SOR 2.12/13) (a) 63 amps (SOR 2.12.2/13)	01Nos		
15.	Supplying fixing TP sheet steel enclosure of surface /recess along with 16/25/32amps 415 volt "c" curve TP MCB completed with connection testing and commissioning etc. as required. (SOR 2.17/14)	01Nos		

S.No	Description of Item	Quantity	Rate	Amount
16.	Supplying and fixing 20 amps 240 volt SPN industrial type socket outlet, with 2 pole and earth. metal enclosed plug top along with 20 amps "C" cure SP, MCB, in sheet steel enclosure on surface in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required. (SOR 2.18/14)	02Nos		
17.	Supplying of 1x40watt fl type fitting tube, Electronic ballast powder coated etc s required as required (MR) Bajaj/ Havells batten gold CAT No. LHIF71104026	06Nos		
18.	S/F MS heavy gauge fan box of 'U' shape fan Hook (MR)	04Nos		
19.	S/F bakelite angle/batten holder of SSk make (MR)	04Nos		
20.	Supplying of 1200mm ceiling fan completed with blade, down rod etc as required of Havells/ velocity crompton Hi-breez	03Nos		

TOTAL

Rs.

Add 01% Labour cess Rs

Add 5% contingency (+) Rs

GRAND TOTAL

Certify that estimate is based on CPWD Schedule of rates 2012 Except MR items .

Say Rs 54700.00