(REVISED) CONTRACT FROM THE EXECUTIVE OF WORKS GOVERNMENT OF THE PUNJAB
SHJAB BUILDING DEPARTING
Name of Work:
Name of Contractor:
Estimated Cost of Work Rs:
Amount of Earnest Money Rs:
Deposit at Call No:
Treasury Challan No:
Time Limit:

Agreement No.-----

OStereo LB No, 386 (revised)

Stereo I.B No. 389 (revised)

Stereo I.B No. 28(revised)

Stereo I.B No. 29(revised)

UNIVERSITY OF AGRICULTURE, FAISALABAD ITEM RATE TENDER & CONTRACT FOR WORKS

1	Name of work	Establishment of Sub-Campus of University of Agriculture Faisalabad at Depalpur- Okara (HEC Funded) (Construction of Administration and Academic Block)
2 3	Estimated cost Time for completion	PKR: 98.19 Million/- 11-Months.
4	Amount of Bid Security	PKR Million (s)
5	Issued to	
6	Pre-tender conference	
7	Dead Line for submission of Tender	23-09-2019 up to 10:00am
8	Opening of Tender	23-09-2019 up to 10:30am
9	Issued by	In charge, Tender Cell, University of Agriculture, Faisalabad.
		Signature:
		Date:

OFFICE STAMP

Note: The officer opening the tender shall reject the tender which does not bear the stamp and signature of the issued official and which is not submitted by the same contractor to whom the tender form was issued

Contractor

GENERAL DIRECTIONS FOR THE GUIDANCE OF THE TENDERER

- 1. These directions are provided to assist the tenderer in preparing and submitting his tender. The tender shall contain all information and data required to be furnished and shall be prepared and submitted in accordance with the instructions set forth herein.
- All necessary documents, such as copies of specifications (excluding standard specification books, <u>MRS, 2nd quarter 2018 District Okara</u>), contract documents, including bill of quantities, estimated scheduled rates and any other documents required in connection with the preparation of tender or execution of works, signed by the engineer-in-charge will accompany the tender form and the cost of such annexed documents will be reflected in the cost of the tender form.
- 3. The tenderer will not be reimbursed for any costs of any kind, whatsoever, incurred in connection with the preparation and submission of his tender.
- 4. No single tender shall include more than one work. A tenderer who wishes to tender for two or more works shall submit tender for each work, separately.
- 5. The memorandum of work tendered for, and the schedule of materials and equipment to be supplied by the engineer-in-charge and the rates at which they are to be charged for (annexed hereto) shall be filled in the office of the engineer-in-charge before the tender form is issued. At this stage the tenderer should ensure that the tender form so issued is complete in all respects.
- 6. The tenderer shall note that the ultimate responsibility for the quality of work and its conformity with the specifications and drawings rests solely with the successful bidder whose tender is accepted.
- 7. The tenderer shall, at his own expense, inspect and examine the site and surroundings and obtain for himself, on his own responsibility, all information that may be necessary for preparing the tender and entering into contract, and shall determine and satisfy himself by such means as he may consider necessary or desirable as to all matters pertaining to the tender. The tenderer shall also satisfy himself before submitting his tender as to the nature of grounds, hydrological and climatic conditions, the form and nature of the site, the nature and lay out of the terrain, the availability of labour, water, electric power and transportation facilities in the area. The tenderer shall specially investigate into the sources of materials to be used for the works and satisfy himself about the quality and quantities of materials available for the completion of the work and the means of access to the site, the accommodation he may require and, in general, shall himself obtain all necessary information, as to the risks, contingencies and other circumstances which may influence or affect his tender. The engineer-in-charge shall not assume any responsibility regarding information gathered interpretation or deduction, which the tenderer may arrive at, from the date that may be furnished with the contract documents.
- 8. (a) The tenderer shall fill up the Bill of Quantities ITEM WISE RATES which he is willing to undertake each item of work. No premium will be quoted by the contractor against non-MRS/item rates, for which the rate and amount has already been filled in by the engineer-in-charge in the bid schedule.

- (b) The tenderer shall quote his own unit rate in the Bill of quantities on which he is willing to undertake each item of work.
- 9. i. The tender shall work out the amount against each item of work in the Bill of Quantities and will indicate the total amount of his tender (including the cost of Non-MRS items rates for which the rate and amount has already been filled in by the engineer-in-charge in the Bill of Quantities) on which he is willing to complete the works. The total amount worked out in the Bill of Quantities shall be entered by the tenderer in his tender as his tender price for the work. In case of discrepancy between amounts in figures and in words, the amount in words shall prevail.
 - ii. Should any discrepancy be found in the amount of pay items or if a column of amount is found blank after filling in a unit rate, the unit rate filled by the tenderer will be extended in working out of the amount of the tender and the total amount of the bid schedule will be adjusted accordingly.
 - iii. If a unit rate is left blank, but the amount against the item is filled, the unit rate will be worked out on the basis of the amount divided by the quantity of the item shown in the bid schedule.
 - iv. If it is found that the tenderer has not entered any unit rate and amount against any of the pay items of the bid schedule, the engineer-in-charge shall fill in the blanks by noting the word "NIL" In such blanks at the time of opening of the tender. Such pay items shall be deemed to be covered by the rates of other items.
 - v. If the tenderer does not accept the adjusted/corrected amount of tender according to the above provision, his tender shall be rejected and the earnest money forfeited.
- 10. The tender which proposes any alteration in the works specified in the Bill of quantities or in the time allowed for carrying out the works or any other condition mentioned by the Engineer-in-charge, will be liable to rejection. The tenderer shall sign each and every page of the tender and contract documents, without making any alteration. All enclosures issued with the contract documents, shall be attached with the tender duly signed by the tenderer. Any addition or alteration made after filing the forms shall duly attested by the tenderer. Non-compliance of this condition shall render the tender liable to rejection.
- 11. The tenderer shall fill in the tender documents, in ink. Errors, if any, shall be scored out, and corrections re-written legibly and attested by the tenderer. Any addition or alteration made after filling the form shall be duly attested by the tenderer. Non-compliance of this condition shall render the tender liable to rejection. Any tender with unattested correction shall be attested by the tenderer in the presence of other tenderers at the time of opening of the tender except that no correction shall be permissible in the rate or amount of the bid schedule or in the tendered price after the opening of the tender.
- 12. Additional Clause (s) for a particular work shall be typed on separate sheet(s) by the Engineer-in-charge, which will be annexed to the contract documents specifying the number of sheets. The tenderer shall not add or delete any additional clause(s) in the additional clauses sheet (s), provided by the Engineer-in-charge.
- 13. The quantities mentioned in the Bill of Quantities are estimated quantities, to be used for preparing tenders, and the Engineer-in-charge does not expressly nor by implication agree that the actual amount of works to be performed will correspond therewith. No payment will be made on account of anticipated profits for work covered by the contract which is not performed, nor will any adjustment in the unit rates set forth in the bid schedule be made because of an increase or decrease in the actual quantities from the estimated quantities indicated therein, except as determined in accordance

with the provisions of Clause 42 of the general conditions of contract.

- 14. No tender without earnest money shall be entertained, earnest money, calculated @ 2% of the estimated cost of the work (rounded suitably), shall be in the form of 'deposit at call receipt'. The earnest money of the unsuccessful tenderers shall normally be returned by the Treasurer, UAF within a week of opening of the tenders and in any case not later than sixty (60) days following the date set for opening of tenders. In the event of the tender being accepted, or receipt for the earnest money forwarded therewith, shall thereupon be given to the contractor. The earnest money of the successful tenderer on execution of the contract covering work will be adjusted towards the amount of security deposit to be retained from the first amount (s) payable to the contractor under the contract.
- 15. The successful tenderer will be required to enter into a contract, furnish the performance security (where-ever required) and to commence the work within the time specified in the memorandum of work. Should the successful tenderer refuse or fail for any reason to enter into contract, or to furnish the performance security or to commence the work within the time specified in the memorandum of work, it should constitute a just cause for the annulment of the award and in the event of such annulment, the entire earnest money shall be forfeited to Government, as compensation for such default.
- 16. (i) The tender shall be signed by the person (s) duly authorized to do so. In the event of the tender being submitted by a firm, it shall be signed separately by each member thereof, or in the event of the absence of any partner, it shall be signed on his behalf by a person holding a power of attorney authorizing him to do so. Such power of attorney should be produced with the tender and it must disclose that the firm is duly registered under the Partnership Act, 1932, or any other law in force.

(ii) The tender submitted by a joint venture of two or more firms shall be accompanied by a document of formation of the joint venture, duly registered and authenticated by competent court, in which shall be stated precisely, the conditions under which it shall function, its period of validity, the person (s) authorized to represent it and accept it obligate, the participation of several firms forming the joint venture and any other information of necessary to permit a full appraisal of its function.

(iii) A tender submitted by a corporation must bear the seal of the corporation and be attested by its Secretary.

(iv) In all cases, the tender must be signed by an individual or individuals having powers to legally bind the firm, joint venture, corporation or companies on whose behalf they are signing.

- 17. Each tenderer shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender and of the rates and prices stated in the bid schedule which rates and prices shall, except in so far as it is otherwise expressly provided in the contract, cover all obligations under the contract and all matters and things necessary for the proper completion and maintenance of the works.
- 18. The tenderer may modify or withdraw his tender after submission, provided that the modification or notice of withdrawal is received in writing by the engineer-in-charge prior to the prescribed deadline for submission of tenders. The tenderer's modification or notice of withdrawal shall be prepared, sealed, marked and delivered, with the inner envelopes additionally marked "MODIFICATION or WITHDRAWAL as appropriate

.No tender may be modified subsequent to the deadline for submission of tender. Withdrawal of a tender during the interval between the deadline for submission of tenders and the expiration of the period of tender validity i.e. sixty (60) days as specified by the tenderer in the Form of Tender may result in the forfeiture of the tender security.

- 19. The tenderer shall submit the original Tender Documents complete in all respects and keep a copy of the tender for his own record. The original should be sealed in an inner ant an outer envelope, duly marking the envelops as "ORIGINAL". The inner and outer envelops shall (a) be addressed to engineer-in-charge (b) and bear the following identification: Tender for (Name of Contract), (Reference Number of Tender), and the words "DO NOT OPEN BEFORE (Time and Date, set for opening)". The inner envelops shall indicate the name and address of the tenderer to enable the tender to be returned unopened in case it is declared to have been received late or is otherwise unacceptable. If the outer envelope is not sealed and marked and instructed above, the Engineer-in-charge will assume no responsibility for the misplacement or premature opening of the tender submitted. A tender opened prematurely because of improper identification will be rejected.
- 20. The tenderer shall indicate in the space provided in the tender his full and proper address at which notice may be legally served on him and to which all correspondence in connection with his tender and the contract is to be sent.
- 21. The presentation of a tender implies full acceptance on the part of the tenderer of these instructions and all other conditions set forth in the contract document.
- 22. Any tender received by the Tender Cell after the deadline for submission offenders prescribed in the Notice Inviting Tenders will be returned unopened to the tenderer.
- 23. The Engineer-in-charge or his duly authorized officer (not below the rank of Assistant Engineer) will open tenders in the presence of intending tenderers or their authorized agents, who may be present at the time. The officer opening the tender will announce the names of the tenderer, tender rates and the presence of requisite tender security.
- 24. Promptly after the opening of Tenders, the Engineer-in-charge will undertake a detailed evaluation of tenders. The Engineer-in-charge will determine whether each tender is substantially responsive to the requirements of the tender documents and conforms to all the terms, conditions and specifications of the tender documents without material deviation or reservation. If a tender is not substantially responsive to the requirements of the tender documents, it will be rejected by the engineer-in-charge and may not subsequently be made responsive by the tenderer having corrected or withdrawn the non-confirming deviation or reservation.
- 25. Except for information to be read out by the Engineer-in-charge at the time of opening tenders in accordance with Para 23 above, no information relating to the examination, clarification, evaluation and comparison of tenders and recommendations concerning the award of contract shall not be disclosed to tenderers or other persons not officially concerned with such process. Any effort by the tenderer to influence the process of examination, clarification, evaluation and comparison of tenders, and in decisions concerning award of contact, may-result in the rejection of his tender.

- 26. To assist in the examination, evaluation and comparison of tenders, the Engineer-incharge may ask tenderers individually for clarification of their tenders, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the tender shall be sought, offered or permitted except as required to confirm the correction of arithmetical errors discovered by the Engineer-in-charge during the evaluation of the tender.
- 26 (A) In case the total tendered amount is less than 5% of the approved estimated (DNIT) amount, the lowest bidder will have to deposit additional performance security from the Scheduled Bank ranging from 5% to 10% and so on as under, within 15 days of issuance of notice or within expiry period of bid, whichever is earlier.

TOTAL TENDERED AMOUNTBELOW CORRESPONDING ESTIMATED COST.	ADDITIONAL PERFORMANCE SECURITY.
5%	5%
6%	6%
7%	7%
8%	8%
9%	9%
10%	10%
And so on	And so on

- 27. The Engineer-in-charge shall have the right of the rejecting all or any of the tenders without assigning any reason thereof. The Engineer-in-charge will not be bound to award the contract to the lowest or to any other tenderer.
- 28. The unit rates and prices entered in the bid schedule will be the rates at which the contractor will be paid (subject to the adjustment specified in clause 55 of the annexed conditions) and shall be deemed to include all costs of performing the work, including income tax, super tax and/or other charges, duties and taxes of the Government, autonomous, semi-autonomous and local bodies, profits and costs of accepting the general risk, liabilities and obligations set forth in or implied from the contract.
- 29. Prior to the expiration of the period of tender validity (60 days) prescribed in the Tender Form or any extension thereof that may have been granted by the tenderer, the Engineer-in-charge will notify the successful tenderer by cable and confirm in writing by registered letter that his tender has been accepted. This letter of acceptance shall name the sum which will be paid in consideration of the execution, completion and maintenance of the works as prescribed in the contract, (hereinafter called the contract price). The notification of award will constitute the formation of the contract.
- 30. At the time, the Engineer-in-charge notifies acceptance of the tender to the tenderer he will send the tenderer the Form of Agreement provided in the tender documents, incorporating all agreements between the parties. Within fifteen (15) days of receipt of the of Agreement, the successful tenderer shall furnish the performance security (10% of the Contract Price) and sign the contract m the presence of the Engineer-in-charge.
- 31. After the successful tenderer has signed the -contract famished adequate performance security the Engineer-in-charge will notify to the un-successful tenderers that they were unsuccessful.

- 32. The completion period will be reckoned from the date of delivering the award or the handing over of the site to the contractor, whichever is later.
- 33. A copy of the contract agreement may be obtained by the contractor at his own cost.

TENDER FOR WORK

То

The Incharge, Tender Cell

Dear Sir,

I/We.....

(Name of the contractor)

The undersigned tenderer, having examined the conditions of contract, specification, drawing bid schedule and addenda Nos..... there to, for the work of

(Name of the work)

Branch) drawn in favor of Treasurer UAF as earnest money, the full value of which will be absolutely forfeited to Government, without prejudice to any other rights or remedies of the said *Government*, should I/We withdraw or modify' the tender within its validity period of sixty (60) days, following the date of receipt of tender.

- 3.I/We understand that if my/our tender is accepted, the foil value of the earnest money as attached with the tender shall be detained by University towards the amount of security deposit specified in clause 48 of the said conditions of contract and item (d) of the Memorandum of work.
- 4. Should this tender be accepted by you; I/We hereby undertake: -
 - (a) To sign ail the necessary documents for entering into a contract agreement in the form set out In the contract document within fifteen (15) days following your notification of such acceptance.
 - (b) To commence the work within the stipulated time named in item (f) of memorandum hereto annexed following the date of issuance of your order to proceed with or the handing over of the site, whichever is later and in the event of my/our failure to do so, the entire amount of earnest money deposited by me/us for which deposit at a call receipt is enclosed herewith, is to be absolutely forfeited to the University. On the commencement of work, I/We hereby also agree to abide by and fulfill all the terms or provisions of the said conditions of the contract annexed hereto so far as applicable and in default thereof, to forfeit and pay to the University the sums of money mentioned in the said conditions.
 - (c) To complete and deliver the whole work comprised in the contract within the time stipulated in

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item No. (g) of the Memorandum hereto annexed, subject to such extension in the time limit as may be granted under the conditions of contract.

- (d) the furnishing of performance security under item (h) of the memorandum annexed hereto, in the sum equal to 10 (ten) percent of the cost of the work in same form sum equal to 10 (ten) percent of the cost of the work in the same form and on the same condition as are prescribed by and to the satisfaction of the Engineer-in-charge.
- 5. I/We also agree that when materials and/or equipment for the work are provided by the t, the rates to be paid for them shall be as provided in Appendices annexed hereto.
- 6. I/We agree to abide by this tender for the period of sixty (60) days following the date set for receiving of tenders and it shall remain binding upon me/us and may be accepted by you at any time before the expiration of that period.
- 7. Unless and until a formal agreement is prepared and executed, this tender, together with your written acceptance thereof, shall constitute a binding contract between us, and shall be deemed for all purposes to be the contract agreement.
- 8. I/We understand that you are not bound to accept the lowest or any tender you may receive, and that you will not defray any expenses incurred by me/us in tendering.

Thanking you,

Yours faithfully,

(Signature of Tenderer)

Dated thisDay

NAME.....

*Address.....

Of20...

I hereby accept the above tender on behalf of the Government.

(Signature of Incharge, Tender Cell)

MEMORANDUM OF WORK

a)	General Description	Establishment of Sub-Campus of University of Agriculture Faisalabad at Depalpur- Okara (HEC Funded) (Construction of Administration and
b)	Estimated Cost	Academic Block) PKR: 98.19Million/-
c)	Amount of earnest money to accompany the tender (to be furnished by the tenderer in the shape of "deposit at call" from a scheduled Bank of Pakistan)	Rs. 1,963,800/-
d)	Percentage of security deposit to be retained form the bills.	
	i) On the amount of work done up to Rs.5.0 million	Ten (10) percent
	ii) On the amount of work done beyond Rs.5.0 million.	Five (5) percent
e)	Mobilization period	Fifteen (15) calendar days
f)	Time allowed for completing the work after the expiry of mobilization period	calendar months
g)	Amount of performance security in the form of Bank Guarantee (see contract conditions clause 7 and General direction 26 (a)	Five (05) percent of the accepted tender price in the case of tenders with cost of exceeding Rs.50.00 millions and as per general condition 26(a) for all tenders.
h)	Time period of maintenance (after the f issuance of certificate of completion)	One Year

i) <u>No Cost Escalation in the project</u>

SUMMARY OF COST

ESTABLISHMENT OF SUB-CAMPUS OF UNIVERSITY OF AGRICULTURE FAISALABAD, AT DEPALPUR - OKARA (HEC FUNDED)

S/NDESCRIPTIONAMOUNT (Rs)1Administrative Block2Academic Block3Total4Add 5% PRA5Grand Total :IN MILLIONInterformed and the second second

(Construction of Administration and Academic Block)

ESTABLISHMENT OF SUB-CAMPUS OF UNIVERSITY OF AGRICULTURE FAISALABAD, AT DEPALPUR - OKARA (HEC FUNDED)

ADMINISTRATION BLOCK

BILL OF QUANTITIES

CIVIL WORKS

Item No.	REF. Nos CH/ITEM	Description of Items	Unit	Qty	Rate (Rs.)	Rate Quoted by The Contractor	Amount (Rs.)
MRS,	2nd BI-ANNUA	AL-2018 (1st July-2018 to 31st December-2018) DI	STRICT OK	KARA			
		1-SCHEDULE ITEMS-A					
		Earth Work					
1	CH:3/47(a)	Jungle clearance and removing within 100 ft. (30 m).a) light	1000 Sft	5,799.00	152.35		
2	CH:3/21(b)	Excavation in foundation of building and other sructures, including debelling,dressing,refilling around structure with excavated eart,watering and ramming lead upto one chain 100ft and lift upto 5 ft.in ordinary soil.	1000 Cft	6,332.78	6,434.20		
		Filling, watering and ramming earth under floors:					
3	CH:3/15(i)(ii)	i) with surplus earth from foundation, etc.	1000 Cft	4,221.86	3,083.00		
		ii) with new earth excavated from outside,lead upto 5 Mile. (as per actual borrow pit lead)	1000 Cft	5,754.00	12,299.60		
		Anti-Termite					

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4	CH:25/42	Spraying anti-termite liquid mixed with water in the ratio of 1:40.	100 Sft	5,491.84	224.80	
		Plain and Reinforement Concrete				
5	CH:6/5	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(i) Ratio 1: 4: 8	100 Cft	605.70	13,002.75	
6	CH:6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate)				
6.1		(i) Ratio 1: 4: 8 (Under Footing)	100 Cft	498.10	17,919.25	
6.2		(f) Ratio 1: 2: 4 (Under Floor)	100 Cft	188.81	22,832.05	
	CH:6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
7	(a)(ii)	Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in i) above not requiring form work (i.e. horizental shuttering) complete in all respects:-				
		(3) Type C (Ratio1: 2: 4)(Footings)	Per/ Cft	1,581.58	266.70	

8	(a)(i)	Reinforced cement concrete slabs, beams, girders, Lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects;-				
		GROUND FLOOR				
		Type B (Ratio 1: 1 ¹ / ₂ : 3)(Column)	Per/ Cft	530.30	392.05	
		Type C (Ratio 1: 2: 4)(Lintel)	Per/ Cft	141.84	361.90	
		Type C (Ratio 1: 2: 4)(Beam)	Per/ Cft	941.67	361.90	
		Type C (Ratio 1: 2: 4)(Slab)	Per/ Cft	1,294.36	361.90	
		Type C (Ratio 1: 2: 4)(Stair, Ramp)	Per/ Cft	133.34	361.90	
		MUMTY FLOOR				
		Type B (Ratio 1: 1 ¹ / ₂ : 3)(Column)	Per/ Cft	56.25	414.90	
		Type C (Ratio 1: 2: 4)(Lintel)	Per/ Cft	7.13	384.75	
		Steel Reinforcement				
9	CH:6/9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars) (ii) Deformed bar (Grade 60)	100Kg	15,041.02	13,223.50	
10	CH:6/33(a)	Providing and laying damp proof course of cement concrete 1:2: 4(using cement, sand and shingle), including bitumen coating :- (a) with one coat of bitumen and one coat of polythene sheet ii) 2" thick (50 mm)	100 Sft	328.88	5,293.45	

11	CH:6/35(a)	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating (a) with one coat of bitumen and one coat of polythene sheet ii) Ratio 1:3 b) ³ / ₄ " thick (20 mm)	100 Cft	528.33	3,424.15	
		Brick Work				
12	CH:7/-4i	Pacca brick work in foundation and plinth in:- Cement, sand mortar:-Ratio 1:6	100 Cft	1,414.20	17,558.45	
		GROUND FLOOR				
13	CH:7/5i	Pacca brick work in ground floor:-Ratio 1:5	100 Cft	2,405.93	19,211.40	
14	CH:7/5i	Pacca brick work in ground floor :-Ratio 1:4	100 Cft	236.33	19,734.60	
		MUMTY FLOOR				
15	CH:7/5i	Pacca brick work in Mumty floor:-Ratio 1:5	100 Cft	758.06	19,993.65	
		Flooring				
16	CH:7/30	Supplying and filling sand under floor; or plugging in wells	100 Cft	1,076.74	1,693.90	
17	CH:10/3	Providing, laying, watering and ramming brick ballast 1½ to 2"(40 mm to 50 mm) gauge mixed with 25 % sand, for floor foundation, complete in all respects	100 Cft	1,052.43	4,300.30	
18	CH:10/22	2"(50 mm) thick mosaic flooring, consisting of ½ "(13 mm) mosaic topping of one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over 1½"(40 mm) thick floor of 1:2:4 cement concrete, including rubbing and polishing complete with finishing :-				

		(a) using grey cement	100 Sft	768.59	10,884.74	
		(b) using white cement	100 Sft	768.59	11,661.84	
19	CH:10/22	Mosaic dado or skirting with one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over ½"(13 mm) thick cement plaster 1:3, including rubbing and polishing, complete with finishing:ii) ½"(13 mm) thick				
		(a) using grey cement	100 Sft	130.38	10,716.15	
		(b) using white cement	100 Sft	130.38	11,234.30	
20	CH:10/15(c)	Providing and laying topping of cement concrete 1:2:4, including surface finishing and dividing in panels:- 1 ¹ / ₂ "(40 mm) thick				
		Plinth Protection	100 Sft	892.50	3,848.20	
21	CH:10/42(a)	Providing and fixing marble strip of any shade for dividing the mosaic flooring into panels				
		a) Siz e 2" x 3/8 " (50 x 10 mm)	Per Rft.	1,814.81	6.60	
		Surface Rendring				
22	СН:11/10(b)	Cement plaster ratio 1:3 under soffit of RCC roof slabs only , upto 20' height. 3/8" (10 mm) thick. (ceiling plaster)	100 Sft	1,778.60	2,074.05	
23	CH:11/9(b)	Cement plaster 1:5 on internal walls upto 20' (6 m) height, 1/2" (13 mm) thick.	100 Sft	3,445.46	1,747.25	
23	CH:11/9(c)	Cement plaster 1:5 on internal walls upto 20' (6 m) height, 3/4" (20 mm) thick.	100 Sft	3,445.46	2,370.10	

		Wood Work				
24	CH:12/7(a)	First class deodar wood wrought joinery in doors and windows, etc. panelled, or panelled or glazed, or fully glazed, fixed in position, including chowkat, holdfast, hinges, tower bolts, chocks, rubber stop, cleats/G.I. clamps, handles and chord with hooks, etc. complete (excluding sliding bolt or lock):- a) 2" thick (50 mm)	Per/Sft	40.00	1,198.10	
25	CH:12/50	Providing and fixing 1 ¹ / ₂ " (40mm) thick solid flush door shutter (Approved Factory Manufactured) with commercial ply (5 mm thick) on both sides double pressed and deodar wood lipping 2"x3/8" (50mm x 10mm) around shutter including chromium plated fitting, iron hinges with aluminium kick plate 22 SWG on both sides & finger plate complete in all respect.	Per/Sft	290.50	363.10	
26	CH:12/51	Providing and fixing panelled door of M.S. sheet, with forged door leaves of M.S. sheet 22 SWG fitted in hollow frame chowkat 3"x4½" (75 mmx113 mm) made of M.S. sheet 18 SWG filled with plain cement concrete 1:3:6 etc. complete with all fittings and hammer painting, including carriage to site and fixing in position.	Per/Sft	24.50	414.00	
27	CH:12/58(b)	Providing and fixing ornamental wooden architrave $3'' x(1\frac{1}{2}'' \text{ tapered to }\frac{1}{4}'')$ all along the door frame complete in all respect.b)Deodar wood architrave	Per/Sft	330.50	44.95	
28	CH:12/21	Providing and fixing, approved quality mortice lock complete in aal respect	Each	13.00	551.05	

29	CH:12/54	Providing and fixing M.S. flat ¹ / ₂ "x1/8" (13mm x 3mm) grill including ³ / ₄ " x 1/8" (20 mmx3 mm) M.S. flat frame, in windows of approved design, including painting three coats, complete in all respects.	Per/Sft	359.00	213.60	
30	CH:12/59	Providing and fixing Vin board cabinet 3/4" thick with drawers 3"deep in 'Kitchen including termite proofing and polishing with synthetic enamel as specified, with handles hinges, screws etc., complete in all respects.iv) 2' deep, with back	Per/Sft	61.75	687.25	
		Painting and Warnishing				
31	CH:13/31	Preparing surface and painting with emulsion paint:-3 Coats New Surface	100 Sft	8,669.51	1,153.45	
32	CH:13/32A	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect:- 3 Coats New Surface	100 Sft	760.50	2,885.85	
33	CH:13/7	French polishing new surface	100 Sft	80.00	2,726.70	
34	CH:13/5(c)	Preparing surface and painting of doors and windows any type (including edges) 3 Coats New Surface	100 Sft	581.00	1,562.65	
		Metal Work				
35	CH:25/39	Providing and fixing stair railing of 2 ¹ / ₂ " (63 mm) i/d G.I. pipe, welded with 5/8"x5/8" (16x16 mm) square M.S. bars 2'-9" (838 mm) high, fixed in each step, complete in all respects, including painting, polishing three coats.	Per Rft.	45.00	806.70	

36	CH:25/53(a)	Providing and fixing all types of glazed aluminium windows of anodized champagne colour partly fixed and party sliding using deluxe section of approved manufacturer having Frame of size 100mm x 30mm using frame at bottom, at top and side leaf leaf frame sections of 60mm x 23mm at top & bottom and size 45mm x 25mm at center and size45mm x 25mm at sides, Jali leaf frame size 43mm x 13mm i/c fine quality aluminum jali, 5mm thick imported tinted glass with rubber gasket using approved standard latches, wheel, stopper, brush chennel angle joint and hardware etc. complete in all respect.a) 1.6 mm thick	Per/Sft	380.00	672.45	
		Roofing & Water Proofing				
37	CH:9/45a	Providing and Laying Insulation material of Extruded Polystyrene XPS in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M, compressive strength 250-400 kpa, R-value 5 per inch thickness and water obsorbtion (1% by volume, cell structure clored cell) i/c cutting and placing in position complete in all respect. a) 1" thick	100 Sft	2,937.00	5,688.00	
38	CH:9/5	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.i/c P/L polythene sheet 500 gauge	100 Sft	2,937.00	6520.5	
39	CH:9/15	Construction of Khuras on roof 2' x 2' x 6"	Each	4.00	497.55	

40	CH:9/16	Bottom Khuras of brick masonry in cement mortar 1:6,4'x2'x4 ¹ / ₂ " (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	Each	4.00	836.2	
		Total "A"(Schedule items)				
		2-NON SCHEDULE ITEMS-B				
		Fair Face Gutka Cladding				
1	Approved N.S	Providing and fixing Fair Face Gutka cladding upto required height using special gutka of size 9"x2-1/4"x2-1/4" i/c cutting ghutka where necessary laying in 1:3 cement sand motor mixed with red oxide pigment with 3/8" thick joints an nominal filling the gap complete i/c cost of steel nails at every 2 ft center to center horizontally and in every 4th course vertically of cladding, embedded half in the wall and half embedded in cladding complete in all respect and as approved and directed by the Engineer Incharge.	Per/Sft	4,232.95	112.00	
		Flooring				
2	N.S	Providing and laying Porcelain tiles flooring (full body) 16"x16"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respects as approved & Directed by the Engineer Incharge. (Master, DWV series Polished (Dark color) class SB	Per/Sft	645.00	227.00	

3	N.S	Providing and laying CERAMIC FLOOR TILES (PREMIUM) Size 12"x12" (CFT MATT) laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respects as approved & directed by the Engineer Incharge. Flooring. STILE TILES (Shabbir Tiles)	Per/Sft	254.02	158	
		Skirting				
4	N.S	Providing and laying Porcelain tiles flooring (full body) 16"x4" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respects as approved & Directed by the Engineer Incharge. (Master, DWV series Polished (Dark color) class SB Dado/ Skirting	Per/Sft	47.29	240.00	
		Dado				
5	N.S	Providing and laying CERAMIC WALL TILES (PREMIUM) size 12"x18" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respects as approved & directed by the Engineer Incharge.STILE TILES (Shabbir Tiles) Dado/ Skirting	Per/Sft	500.16	171.00	
		Entrance Steps / Podium				
6	N.S	Providing and fixing 3/4" thick pre-polished Marble Slab Granite uniform texture full width area above 2 sft laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment i/c beveling charges on exposed edges complete in all respect as approved / directed by the Engineer Incharge	Per/Sft	190.26	613.00	
		Kitchen Counter				

7	N.S	Providing and fixing 3/4" thick pre-polished Marble Slab Sunny Grey uniform texture full width area above 2 sft laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment i/c making gola on exposed edges complete in all respect as approved / directed by the Engineer Incharge.	Per/Sft	26.00	305.00	
		Stair Steps				
8	N.S	Providing and fixing 3/4" thick pre-polished Marble Slab Sunny Grey uniform texture full width area above 2 sft laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment i/c beveling charges on exposed edges complete in all respect as approved / directed by the Engineer Incharge	Per/Sft	175.56	323.00	
		Miscellenious				
9	Approved N.S	Providing and Fixing of M.S steel chowkats full jam of 10-1/2"x 2" single rebate of M.S 16 SWG with up to 4 Nos 5" long C.P hinges screwed / welded M.S flat iron 2" x 1/8" in back of hinges welded inside i/c 3/8" dia bars 2 Nos bottom with 6 NOS 6" long hold fast angle iron 1.5"x1.5"x3/16" also back fill with P.C.C 1:2:4 i/c painting with red oxide and bitumen coating on surface touching with concrete complete in all respect.	Per/Sft	136.50	330.00	
10	Approved N.S	Providing and Fixing M.S steel chowkats full jam of 5-1/2"x 2" single rebate of M.S 16 SWG with up to 4 Nos 5" long C.P hinges screwed / welded M.S flat iron 2" x 1/8" in back of hinges welded inside i/c 3/8" dia bars 2 Nos bottom with 6 NOS 6" long hold fast angle iron 1.5"x1.5"x3/16" also back fill with P.C.C 1:2:4 i/c painting with red oxide and bitumen coating on surface touching with concrete complete in all respect.	Per/Sft	154.00	291.00	

11	N.S	Providing and Fixing Pre-Cast Roof (Izhar Made of Girder & Slab) as shown in drawings complete in all respect and approved by the Engineer Incharge	Per/Sft	222.00	182.520	
12	Approved N.S C-0006	Providing and Fixing Gypsum board 2'x2' false ceiling make DFB with 7mm thiness with aluminum foil on the back of tile fixed on imported CKM Tees and Fittings and supported with local angle with G.I 16 Guage at appropriate distance i/c cost of hooks, clamps, carriage and labour charges at any height etc complete in all repect and as per satesfaction of Engineer Incharge	Per/Sft	645.00	63.00	
13	N.S	Supply, provide and fix in position uPVC rain water down pipe lines conforming to ISO 3633:1991 and BS 3505 1968 (wall thickness 3.2mm) including proper joints complete in all respects, and system leak-free:				
		4" dia	Rft	80.00	250	
14	N.S	Provide and fix uPVC plain bends with grating (as rain water inlets at roof), water tight connection leak-free:				
		4" dia	Each	4.00	1,400	
15	N.S	Provide and fix uPVC shoe bends (as rain water outlets), water tight connection leak-free				
		4" dia	Each	4.00	1,000	
		Total "B"(Non Schedule items)				
		Net Total (A+B)				

ESTABLISHMENT OF SUB-CAMPUS OF UNIVERSITY OF AGRICULTURE FAISALABAD, AT DEPALPUR - OKARA (HEC FUNDED)

ADMINISTRATION BLOCK

BILL OF QUANTITIES

PUBLIC HEALTH WORKS

Sr #	REF. Nos CH/ITEM	Description	Unit	Qty.	Unit Rate (Rs)	Rate Quoted by The Contractor	Amount (Rs)
MR	.5, 2nd BI-A I	NNUAL-2018 (1st July-2018 to 31st December-2018) DISTR					
		<u>SCHEDULE ITEMS</u>					
1	19-1-i	Providing and fitting glazed earthen ware water closet European type, excluding seat and cover:-	Each	4	2,191.50		
2	19-9-i	Providing and fixing glazed earthen ware sink, including bracket set, waste pipe and waste coupling: 60x45 cm (24"x18")	Each	1	1,740.60		
		G.I Piping					
3	23-22-iii	Providing, laying, cutting, jointing, testing and disinfecting G.I. pipeline in trenches, (Cost of sockets, tees, elbows, bends, valves, crosses, unions and plugs, etc. is included in the rates) with socket joints, using G.I pipes of B.S.S. 1387- 1967 complete in all respects, with specials and valves. Heavy Duty					
	<u> </u>	a) ³ / ₄ " i/d (20 mm) 3.25mm thick	Rft	160	141.15		
		SEWERAGE					

Contractor

4		Providing and laying RCC pipe, moulded with cement					
		concrete 1:1.5:3, with spigot socket or collar joint, etc.					
		including cost of reinforcemnt, confirming to B.S. 5911:					
		Part I: 1981, class "L" including carriage of pipe from					
		factory to site of work, lowering in trenches to correct					
		alignment and grade, jointing, cutting pipes where					
	21-1	necessary, finishing and testing, etc. complete.					
		(i) 150 mm (6:) i/d	Rft	145	190.50		
		(ii) 225 mm (9:) i/d	Rft	30	343.20		
5		Providing, laying, cutting, jointing, testing and disinfecting.					
		pipes of B.S.S. with `D' 2 and valves is not included in the					
	23-27	Class working pressure complete in all respects:-					
		b) 3" i/d (75 mm)	Rft	129	169.00		
		c) 4" i/d (110 mm)	Rft	55	281.60		
6		Providing and fixing 6" thick RCC manhole cover with					
		3"x3"x1/4" angle iron frame, 22" i/d as per standard	Per				
	21-17	drawing STD/PD no. 7 of 1977, complete in all respects.	set	5	4,729.90		
			I	otal "A"(Sch	nedule items)		
		NON SCHEDULE ITEMS					
		P/F OF WASH H& BASIN WITH PEDESTAL &					
1	PH-0016	FITTINGS. 3 Star					
		Made	Nos.	2	5,894		
2	PH-0019	P/F OF VANITY COUNTER BASIN INCLUDING COST					
2	FH-0019	OF FITTINGS. 3 Star Made		_			
			Nos.	2	4,340		
3	PH-0009	P/F OF SINK MIXER (020) 1/2" DIA Master Made					
Ũ	111 0007		Nos.	1	4,500		
4	PH-0008	P/F OF BASIN MIXER (801) 1/2" DIA Faisal Made					
	111 0000		Nos.	4	4,750		
6	DU 0001	DE OF DID COCK 1/2" DIA (005) Master Made					
6	PH-0001	P/F OF BIB COCK 1/2" DIA. (005) Master Made	Nos.	4	1,145		
			1105.	•	1,110		
7	PH-0004	P/F OF TEE STOP COCK (1404) 1/2" DIA. Faisal Made					
/	РП-0004	F/F OF TEE STOP COCK (1404) 1/2 DIA. Paisai Made	Nos.	12	1,232		

1			1			
8	PH-0022	P/F OF SOAP Dish 2007). Master Made	Nos.	4	525	
9	PH-0022	Providing and fixing toilet paper holder heavy duty master made with fitting material.	Nos.	4	1,200	
10	PH-0021	P/F OF TOWEL RAIL WITH BRACKETS CHROMIUM PLATED (5302). Faisal Made	Nos.	4	920	
11	PH-0115	Making Sewerage Connection To Existing Manhole Of Main Sewerage Pipe Line Including Cost Of Plugging, Dewatering, De-Silting, Making Hole In Wall Repairing And Restoration Etc Complete In Working Condition	Job	1	1,200	
12	PH-0014	P/F OF MUSLIM SHOWER (1406). Faisal Made	Nos.	4	867	
13		PPR PIPE				
14	PH-0025	P/F OF PPRC PIPE 25MM DIA COMPLETE WITH ALL RESPECT. Dadex Made	120	Rft	135	
15	PH-0027	P/F OF PPRC PIPE 32MM DIA COMPLETE WITH ALL RESPECT. Dadex Made	90	Rft	145	
16	PH-0029	P/F OF PPRC PIPE 40MM DIA COMPLETE WITH ALL RESPECT. Dadex Made	70	Rft	230	
17	PH-0031	P/F OF PPRC PIPE 50MM DIA COMPLETE WITH ALL RESPECT. Dadex Made	85	Rft	340	
18	PH-0033	P/F OF PPRC PIPE 63MM DIA COMPLETE WITH ALL RESPECT. Dadex Made	135	Rft	525	
19		Valves				

		Providing and installing valves of following nominal dia,				
	DUI 01111	P/F OF H&LE VALVE 1".				
	PH-0111	Faisal Made	1	Nos.	900	
	DUI 0110	P/F OF H&LE VALVE 1-1/2" DIA.Faisal Made	1	1105.	700	
	PH-0112		1	Nos.	1,700	
		P/F OF GATE VALVE 2" DIA.				
	PH-0113	Kitz Made	2	Nos.	6 200	
20		Vent Cowel	2	INOS.	6,300	
20	DII 0005	P/F OF NIKASI VENT COWL 110MM.DADEX MADE:				
	PH-0095					
		4" i.d	3	Nos	190	
21		Multifloor Trap				
	PH-0020	P/F OF NIKASI P-TARP 110MM. DADEX MADE	10	Nos.	1,700	
22	NG					
22	NS	Glass				
		Providing and fixing best quality distortion free imported				
		Belgium glass (beveled) mirrors 5mm thick, with hard				
		board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings.				
			28	Sqft	180	
23	NS	Valves				
		Providing and installing ball valves of following nominal				
		dia, Kitz make or approved Equaivalent, including jointing,				
		fitting, painting, testing, complete in all respects to match				
		with PPR and PE pipes of following diameters.				
		32 mm	5	Nos	5,106	
		63 mm	2	Nos	22,000	
24	NS	Providing and installing Gas Geyser including All types of				
		Valves & fitting accessories, complete in all respect as per				
		specifications and drawings.				

		35 Gallon Geyser	1	Nos.	30,000	
		6 Gallon Instant Geyser	1	Nos.	15,000	
25	NS	Clean Out				
		Providing and fixing clean out with threads ferule fixed in				
		pipe with the help of solvent, as shown on drawing,				
		complete in all respects as per specifications and drawings.				
		3" i.d	4	Nos.	4,450	
		4" i.d	2	Nos.	5,450	
26	NS	Gully Trap				
		Providing and making Gully trap 1'-0"x1'-0" internal size				
		including 9" thick brick masonry (1:4), 1/2" th. Plastering				
		(1:3) i/side, benching with PCC 1:2:4 4" th. with cement				
		finish, including steel grating cover, chamber 6" dia RCC				
		Pipe and connection with manhole. complete in all respect				
		as per specifications, drawings & Engineer in charge.	3	Nos.	15,000	
27	NS	Manhole				
		Providing and constructing 2'x2' manhole with brick work				
		including excavation, backfilling, RCC work PCC 1:2:4				
		cambering, plastering in 1:4 inside & outside, water				
		proofing etc., upto 6' depth and size including ladder top				
		slab, 18" heavy duty C.I. Manhole cover with frame				
		"ALPINE INDUSTRIAL CON", "CME", "NPC SUPER" as				
		shown on the drawings, complete in all respect as per				
		specifications and drawings.	5	Nos.	25,000	
28	NS	Khurra / R.W.C.B				
		Providing and making top khurra/R.W.C.B using 3" thick				
		plain cement concrete 1:2:4 matching with roof tiles with				
		steel trowel finishing at desired level including curing,				
		finishing, complete in all respect as per specifications and				
		drawings.) Y	1,500	
		i) 2'x2'.	3	Nos.	1,500	
			Tota	l "B"(Non Sch	,	
					Total (A+B)	

ESTABLISHMENT OF SUB-CAMPUS OF UNIVERSITY OF AGRICULTURE FAISALABAD, AT DEPALPUR - OKARA (HEC FUNDED)

ADMINISTRATION BLOCK

BILL OF QUANTITIES

ELECTRICAL WORKS

Sr No.	REF. Nos CH/ITEM	Item. No.	Description	Unit	Estimated Quantity	Rate (Rs)	Rate Quoted by The Contractor	Amount (Rs)
MRS	5, 2nd BI-AN	NUAL-	2018 (1st July-2018 to 31st December-2018) DIST	RICT OK	ARA			
A) S	chedule Item	S						
1		1.1	Light Circuits.					
			Supply, installation and commissioning of light circuit wiring, to be wired with 3x2.5mm sq. (1P+1N+1CPC) PVC insulated 300/500 V grade wire, manufactured by M/s. Pakistan Cables Ltd,Pioneer Cables,Newage Cables in and including cost of 3/4" dia. heavy duty PVC conduit make Beta, Shavyl or Premium, recessed in , walls, Roof slab, or on surface or above false ceiling or as required as per site conditions, all PVC conduit accessories, pull boxes, steel pull wires , complete in all respects. Each circuit shall have independent CPC. Maximum wiring of 2 light circuits can be pulled through 1" dia. PVC conduit. (CK=8)					

[Ref: Item 10 (a- iii)/24]]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1 No. 1x 2.5 mm (7/0.029")	Rft	1680	15.95	
[Ref: Item 3(iii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 25mm	Rft	560	47.85	
	1.2	1st Light Point Controlled By One Switch				
		Wiring of first light point controlled by one switch and wired with 2x1.5 mm sq.(P+N) PVC insulated wires 300/500 V grade, manufactured by M/s. Pakistan Cables Ltd,Pioneer Cables,Newage Cables in and including cost of 3/4" dia. heavy duty PVC conduit make Beta, Shavyl or Premium, recessed in wall, columns slabs or above light carrier all PVC conduit accessories, 3" high PVC junction boxes, pull boxes, steel pull wires, PVC flexible conduit from ceiling junction box to light fixture with brass chuck nut including 1.5mm sq. PVC insulated wire of colour green as CPC, M.S. sheet steel switch box 16 SWG with earth terminal and 2 coats of enameled paint, M.S. box shall be of the same size as that of 1, 2 or 3 gang flush type plate switches 10 amps (CK=33)				
[Ref: Item 10 (a- i)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only)	Rft	2375	11.7	

1			i) Cost of 1 No. 1x 1.5 mm (3/0.029")					
	[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 20mm	Rft	1187.5	41.45		
			Supply and erection of PVC sheet box for recessed wiring, including making holes for ragulators, switches and plugs, complete in all respect as approved by the engineer incharge.					
		1.3	Point- Points Wiring					
			Same as Item No. 1.2 but Loop wiring of a light point from fist light point with 2x1.5 mm sq.(P+N) PVC insulated wires 300/500 V grade, manufactured by M/s. Pakistan Cables Ltd,Pioneer Cables,Newage Cables in and including cost of 3/4" dia. heavy duty PVC conduit make Beta, Shavyl or Premium recessed in wall, columns slabs or above light carrier all PVC conduit accessories, 3" high PVC junction boxes, pull boxes, steel pull wires, PVC flexible conduit from ceiling junction box to light fixture with brass chuck nut including 1.5mm sq. PVC insulated wire of colour green as CPC, M.S. sheet steel switch box 16 SWG with earth terminal and 2 coats of enameled paint. make Clipsal, Bush (CK=70)					
	[Ref: Item 10 (a- i)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1 No. 1x 1.5 mm (3/0.029")	Rft	6825	11.7		

[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 20mm PVC pipe	Rft	3412.5	41.45	
	1.4	<u>1-13 Amps Switch Socket</u>				
		Wiring and fixing of one 13A light plug sockets from DB to point with 2x1 core 4 mm sq. + 1x2.5mm sq. CPC, PVC wires 300/500 Volt grade, M/s. Pakistan Cables Ltd,Pioneer Cables,Newage Cables in and including cost of 1" dia. heavy duty PVC conduit, make Beta, Shavyl or Premium recessed in walls, floor, above false ceiling or as required as per site conditions, all PVC conduit make Beta accessories, pull boxes, steel pull wires, M.S. box shall be made of 16 SWG sheet steel with earth terminal having 2 coats of antirust paint , M.S. box shall be of the same size as that of 1-13Amps switch socket, including cost of 13 Amps 3 pin combined switch socket make BUSH Pakistan. Wiring shall be done directly from the MCB installed in the respective DB without any claim of circuit. (CK=10)				
[Ref: Item 10 (a- iv)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x4 mm2 (7/0.036")	Rft	1800	22.95	
[Ref: Item 10 (a- iii)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only)	Rft	900	15.95	

		ii) Cost of 1x2.5 mm2 (7/0.029")				
[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials iii) Cost of 25 mm PVC pipe	Rft	900	47.85	
	1.5	Loop-Loop- 13 Amps Switch Socket				
		Same as above item No. 1.4 but loop wiring of 13A light plug socket outlet from DB to point with 2x1 core 4 mm sq. + 1x2.5mm sq. CPC, PVC wires 300/500 Volt grade, make M/s. Pakistan Cables Ltd,Pioneer Cables,Newage Cables in and including cost of 1" dia. heavy duty PVC conduit, make Beta, Shavyl or Premium recessed in walls, floor, above false ceiling or as required as per site conditions, all PVC conduit make Beta accessories, pull boxes, steel pull wires, M.S. box shall be made of 16 SWG sheet steel with earth terminal having 2 coats of antirust paint , M.S. box shall be of the same size as that of 1-13Amps switch socket, including cost of 13 Amps 3 pin combined switch socket make BUSH Pakistan. Wiring shall be done directly from the MCB installed in the respective DB without any claim of circuit.				
[Ref: Item 10 (a- iv)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x4 mm2 (7/0.036")	Rft	2340	22.95	

[Ref: Item 10 (a- iii)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) ii) Cost of 1x2.5 mm2 (7/0.029")	Rft	1170	15.95	
[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials iii) Cost of 25 mm PVC pipe	Rft	1170	47.85	
	1.6	1 x 3 Pin 20 Amps Switch Socket				
		Wiring and fixing of one 20A power sockets outlet with 2x 4mm2(P+N) & 1x2.5mm2 as CPC single core cables from DB to point_combined switch socket outlet creamic Base with Rocker Switch (Shuttered) Silver Point, Neon Light Heavy duty 2P+E, 20A,250V. PVC wires 300/500 Volt grade, M/s. Pakistan Cables Ltd,Pioneer Cables,Newage Cables in and including cost of 1" dia. heavy duty PVC conduit, make Beta , Popular recessed in walls, floor, above false ceiling or as required as per site conditions, all PVC conduit make Beta, Shavyl or Premium accessories, pull boxes, steel pull wires, M.S. box shall be made of 16 SWG sheet steel with earth terminal having 2 coats of antirust paint , M.S. box shall be of the same size as that of 1-20Amps switch socket, including cost of 15 Amps 3 pin combined switch socket make BUSH Pakistan. Wiring shall be done directly from the MCB installed in the respective DB without any claim of circuit.(CK=2)				

[Ref: Item 10 (a- iv)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x4 mm2 (7/0.036")	Rft	180	22.95	
[Ref: Item 10 (a- iii)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x2.5 mm (7/0.029")	Rft	90	15.95	
[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 25 mm	Rft	90	47.85	
	1.7	<u>1 x 3 Pin 20 Amps Switch Socket for AC</u>				
		Wiring and fixing of one 20A power sockets outlet with 2x 6mm2(P+N) & 1x4mm2 as CPC single core cables from DB to point combined switch socket outlet creamic Base with Rocker Switch (Shuttered) Silver Point, Neon Light Heavy duty 2P+E, 20A,250V. PVC wires 300/500 Volt grade, M/s. Pakistan Cables Ltd,Pioneer Cables,Newage Cables in and including cost of 1" dia. heavy duty PVC conduit, make Beta , Popular recessed in walls, floor, above false ceiling or as required as per site conditions, all PVC conduit make Beta, Shavyl or Premium accessories, pull boxes, steel pull wires, M.S. box shall be made of 16 SWG sheet steel with earth terminal having 2 coats of antirust paint , M.S. box shall be of the same size as that of 1-15Amps switch socket, including				

[Ref: Item 10 (a- v)/24]		cost of 15 Amps 3 pin combined switch socket make BUSH Pakistan. Wiring shall be done directly from the MCB installed in the respective DB without any claim of circuit.(CK=6) Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x4 mm2 (7/0.044")	Rft	1800	32.25	
[Ref: Item 10 (a- iv)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x2.5 mm (7/0.036")	Rft	900	22.95	
[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 25 mm	Rft	900	47.85	
	1.8	Fan Points Conforming to same specifications as mentioned above for Item No. 1.2. but wiring of ceiling fan points, including cost of MS hook box circular type having MS hook 16 mm (5/8") dia make Unique, Beta to be casted in RCC slab, MS switch board of appropriate size to accommodate dimmer, complete in all respects, including dimmer provided by the Fan manufacturer.(CK=13)				
[Ref : Item 49/24]	i	Supply and erection of 3/8" (10 mm) dia M.S. bar fan hook placed at the time of casting of slab.	Each	22	39.45	
[Ref : Item 14(ii)/24]	ii	Back Box (7"x4")	Each	22	221.90	

	[Ref: Item 10 (a- i)/24]	iii	Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x 1.5 mm (3/0.029")	Rft	2090	11.7	
	[Ref: Item 3(ii)/24]	iv	Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 20mm	Rft	1045	41.45	
		1.9	ExhaustFansPointsConforming to same specifications as mentioned above in Item No. 1.2 but wiring of exhaust fan point excluding cost of hook box but including cost of 10 A switch make Clipsal M.S box 16 SWG with earth terminal, 2 coats of antirust point, all fixing accessories, 1-5 Amps ceiling rose and including one switch of 10 amps switch. (CK=4)				
	[Ref: Item 10 (a- i)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x 1.5 mm (3/0.029")	Rft	475	11.7	
	[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specialsii) Cost of 20mm	Rft	237.5	41.45	
2			L.T. Power Cables				

		2.1	Supply at site, installation, testing and commissioning of PVC insulated non armoured copper conductor cable 600 / 1000 Volt grade manufactured by any one of the manufacturers M/s. Pakistan Cables Ltd,Pioneer Cables,Newage Cables in prelaid conduits / trenches to be installed as per routes shown on drawings including cost of all necessary materials, connections, identification tags, cables lugs properly crimped at both ends for the following sizes complete in all respects. Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the employers electrical engineer before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.					
	13-d- (iii)/24		c) 4 core 50mm sq. (equivalent 19/0.064")	Rft	150	1014.95	-	
		2.2	Circuit Protective Conductor (CPC)					
	12-(ii)/24		c) 1 core 25mm sq.	Rft	150	129.55		
3			PVC Conduit					
		3.1	Supply at site of PVC conduit heavy duty make Beta, Shavyl or Premium to be concealed in RCC slabs, walls, floor, columns above false ceiling or as required as per site conditions including cost of all PVC conduit accessories, steel pull wires, complete in all respects.					
	3(vi)/24		e) 2" Did PVC Conduit	Rft	200	84.25		
		3.2	PVC PIPE FOR TELEPHONE SYSTEM					

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	2 (11) 24		Supply and erection of PVC pipe for wiring recessed in walls, including inspection boxes, pull boxes, hooks, cutting harries, and repairing surface, etc., complete with all specials.	Dé	250	47.95				
	3-(iii)/24	a	25 mm i/d	Rft	350	47.85				
	3-(v)/24	b	40 mm i/d	Rft	75	71.05				
		3.3	PVC PIPE FOR COMPUTER SYSTEM							
			Supply and erection of PVC pipe for wiring recessed in walls, including inspection boxes, pull boxes, hooks, cutting harries, and repairing surface, etc., complete with all specials.							
	3-(iii)/24	a	25 mm i/d	Rft	270	47.85				
	3-(v)/24	b	40 mm i/d	Rft	125	71.05				
					Total A-(Schedule Items)=					
B) N	on-Schedule	Items.								
1			Switch & Sockets.							
	Approved NS	1.1	i) Providing and Installation of PVC Sheet Back Box 7.5 cm x 7.5 cm (6"x3") (Non Metalic) China Made	Each	14	78.00				
	Approved NS	1.2	i) Providing and Installation of PVC Sheet Back Box 7.5 cm x 7.5 cm (3"x3") (Non Metalic) China Made	Each	41	120.00				
	E-1053	1.3	Supply & fitting of 10A, 1 Gang 1 Way Switch Clipsal Made Bush / Orange made, or Eqv. As per approval of Engineer Incharge.	Each	2	248.00				
	E-1048	1.4	Supply & fitting of 10A, 2 Gang 1 Way Switch Clipsal Made Bush / Orange made, or Eqv. As per approval of Engineer Incharge.	Each	3	366.00				
	E-1050	1.5	Supply & fitting of 10A, 4 Gang 1 Way Switch Clipsal Made Bush / Orange made, or Eqv. As per approval of Engineer Incharge.	Each	4	669.00				

	E-1051	1.6	Supply & fitting of 10A, 5 Gang 1 Way Switch Clipsal Made Bush / Orange made, or Eqv. As per approval of Engineer Incharge.	Each	2	777.00	
	E-1052	1.7	Supply & fitting of 10A, 6 Gang 1 Way Switch Clipsal Made Bush / Orange made, or Eqv. As per approval of Engineer Incharge.	Each	8	989.00	
	E-1057	1.10	Supply & fitting of 13A switch socket Clipsal Made Bush / Orange made, or Eqv. as per approval of Engineer Incharge.	Each	25	561.00	
	E-1059	1.14	Supply & fitting of 15A switch socket Clipsal Made Bush / Orange made, or Eqv. As per approval of Engineer Incharge.	Each	8	610.00	
2			Light Fittings And Fixtures				
		2.1	LIGHTS				
	E-1018	i	Supply & fitting of LED Down Light 18 Watts Surface mounted DN027C LED CW 6500K Philips Made	Each	109	2703	
	E-1054	2.2	Supply & fitting of Fan speed controller switched Clipsal Made	Each	21	1242.00	
		2.3	Ceiling Fans				
	E-1045		Supply & fitting of ceiling Fan 56"copper (Energy Efficient Pak Fan Deluxe Model as approved by PEECA)	Each	21	4498	
	Approved NS		Providing and Installation of PVC Fan Box Including Rod Popular Made.	Each	21	150	
		2.4	Exhaust Fans				
			Supply & fitting of Exhaust Fan 12" copper plastic body (Energy Efficient Model) G.F.C or Equivalent Made NEECA/PEECA Approved				
	E-1021	i	12" dia (Plastic Body).	Each	5	3118	
3			L.T. Switchgear				

1 1		l			1	I	1	1
			Distribution Board Concealed					
			Supply, installation, connection of wires cables,					
			and commissioning of distribution boards					
			concealed type or to be installed on wall, made of					
			16 SWG M.S. sheet with hinged door, handle,					
			catcher, earthing bar and neutral link with					
			necessary holes, nuts, bolts, washers, earthing of					
			DB door with braided copper internal wiring,					
			PVC cable glands for incoming and out going					
			wires/cables, 2 earthing terminals designation					
			label engraved on plastic sheet of appropriate					
			size to be pasted on the front side of DB, 3 phase					
			indication lamps of colour red, yellow, blue,					
			make Hager, Legrand (France) SV122 SV128					
			SV126 moulded case circuit breaker with					
			overload and short circuit protection (MCCB) to					
			be installed on the incoming side, Icu not less					
			than 10 KA, and for miniature circuit breakers					
			Icu 6 KA make Schneider, M.G., Legrand					
			(France), ABB (Italy) Terasaki (Japan) having					
			overload and short circuit protection, including					
			cost of all necessary fixing accessories complete					
			in all respects make Tariq Electric, Billal					
			Engineering, PEL, Techno Engineering.					
			DBLP-G 01 No. Incoming 150 Amp MCCB TP,					
			RC=10 kA 30 No. Outgoing 10/16/20 Amp MCB					
			SP, RC=6 kAa) Volt Selector Switch b) 1 No					
	Appendix '		Digital voltmeterc) 3 No indication lights 220					
	c'Page No-	3.1	Volt d) 3 Ph N & Earth copper busboarse)	Each	1	67202.4		
	1		Internal wiring & Line-up terminal,Cable					
			Numbering Sleeves etcf) Panel steel grid painted					
			along with locking arrangement <u>UPS:</u> 01 No.					
			Incoming 30 Amp MCB DP, RC=10 kA 07 No.					
			Outgoing 10 Amp MCB SP, RC=6 kA					
4		4.1	Earthing System					

	Appendix ' c' Page No-2		Supply, installation, commissioning and testing of the earthing system including cost of the following 3 meter long of 5/8"dia tinned copper electrodes. up-to water level including cost of boring and lowering complete with clamp and 2 X 25mm2 stranded copper conductor from copper rod to ground surface in 1-1/2" uPVC Pipe class D with watering cap manhole with cover as per detail complete in all respects. and the resistance should up to 1-3 Ohms. the installation / test should be conducted in presence of engineer inchage.	Job	1	44138	
		4.2	Earth Connecting Point				
	Appendix ' c' Page No- 3		Supply, installation of earth connecting points consisting of copper plate 12" long, 2" wide and 1/2" thick to be installed as and where shown on drawings on the wall of the trenches, complete with fixing arrangement, brass nuts bolts complete in all respects to facilitate connections of Incoming copper strips and Outgoing CPC.	Nos.	1	3278	
		4.3	Manhole				
	Appendix ' c' Page No- 4		Constructing of 2'x 2'x 2.5' (internal size) including earth work 4" thick PCC 1:4:8 9" thick first class burnt brick work in 1:5 mortar, plastered inside in 1:5 cement sand and 4" thick RCC cover with grade 40 reinforcement.	Nos.	1	7238	
5			Telephone System				
		5.2	Telephone Outlet				
	Approved N.S		Supply / Erection of Bush made data single socket (RJ-11) including 16 SWG back box of 3"x3" size complete in all respect.	Each	12	778.48	
		5.3	<u>Telephone Cables</u>				

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	Approved	a	Providing & laying multi pairs (Twisted) PVC insulated / underground cable of best quality (siemens, Germany, or Best imported as per approved sample) in pre-laid PVC recessed conduit or fixed cable duct/ Tray as per satisfaction of the Electrical Engineer. <u>4-5 Pair Cable CAT-6/UG/PVC (0.6 mm sq)</u> (From DP to each Room)	Rft	2550	22	
	N.S	5.4	(From DP to each Room) Telephone Junction Box 20 Pairs (TJB)				
	Appendix ' c' Page No-5	J. 1	Supply, installation and commissioning of telephone junction box 250/5 make Krone Germany Krone No. 6525/1/022/00 of approved colour, designation label as per drawing, including disconnecting modules of 20 Nos. Type 2/10 LSA Plus Profile Krone Germany No. 6089/1/102/02 for incoming and outgoing telephone cables, all necessary accessories complete in all respects.	Each	1	6,466	
6			Computer System				
		6.2	Computer Outlet				
	Approved N.S		Supply / Erection of Bush made data single socket (RJ-45) including 16 SWG back box of 3"x3" size complete in all respect.	Each	11	1222.47	
		6.3	<u>Computer Cables</u>				
			Wiring for each data/computer point included cost of 1 no. 4 pair CAT- 6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed manufactured by Krone, 3M, Clipsal to support data rates upto1GBits/s. or more than 1 GBits/s with connections at both ends, designation labels				
	Approved N.S	a	1 no. 4 pair CAT- 6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed.	Rft	1350	22	
		6.4	Junction Box				

E-1079	P/F of MS Sheet Box 16 SWG including cutting, molding, welding, painting with powder coated paint (3-Coats) with lock and key arrangement complete in all respects		2	2,100		
		Total B(Non-Schedule Items)=				
		otal (A+B)=				

ESTABLISHMENT OF SUB-CAMPUS OF UNIVERSITY OF AGRICULTURE FAISALABAD, AT DEPALPUR - OKARA (HEC FUNDED)

ACADEMIC BLOCK

BILL OF QUANTITIES

CIVIL WORKS

Item No.	REF. Nos CH/ITEM	Description of Items	Unit	Qty	Rate (Rs.)	Rate Quoted by The Contractor	Amount (Rs.)
MRS,	2nd BI-ANNU	AL-2018 (1st July-2018 to 31st December-2018) DI	STRICT OK	ARA			
		SCHEDULE ITEMS-A					
		Earth Work					
1	CH:3/47(a)	Jungle clearance and removing within 100 ft. (30 m).a) light	1000 Sft	79,087.43	152.35		
2	CH:3/21(b)	Excavation in foundation of building and other sructures, including debelling,dressing,refilling around structure with excavated eart,watering and ramming lead upto one chain 100ft and lift upto 5 ft.in ordinary soil.	1000 Cft	42,165.65	6,434.20		
		Filling, watering and ramming earth under floors:					
3	CH:3/15(i)(ii)	i) with surplus earth from foundation, etc.	1000 Cft	28,110.43	3,083.00		
		ii) with new earth excavated from outside,lead upto 5 Mile.(as per actual borrow pit lead)	1000 Cft	68,896.87	12,299.60		

Contractor

		Anti-Termite				
4	CH:25/42	Spraying anti-termite liquid mixed with water in the ratio of 1:40.	100 Sft	36,893.68	224.80	
5	CH:6/5	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(i) Ratio 1: 4: 8	100 Cft	2,343.40	13,002.75	
		Plain and Reinforement Concrete				
6	CH:6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate)Ratio 1:2:4				
6.1		(i) Ratio 1: 4: 8 (Under Footing)	100 Cft	3,166.34	17,919.25	
6.2		(f) Ratio 1: 2: 4 (Under Floor)	100 Cft	1,232.08	22,832.05	
	CH:6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
7	(a)(ii)	Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and other structural members other than those mentioned in i) above not requiring form work (i.e. horizental shuttering) complete in all respects:-				

		(3) Type C (Ratio1: 2: 4)(Footings)	Per/ Cft	10,175.41	266.70	
8	(a)(i)	Reinforced cement concrete slabs, beams, girders, Lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects;-				
		GROUND FLOOR				
		Type B (Ratio 1: 1 ¹ / ₂ : 3)(Column)	Per/ Cft	5,487.09	392.05	
		Type C (Ratio 1: 2: 4)(Lintel)	Per/ Cft	885.80	361.90	
		Type C (Ratio 1: 2: 4)(Beam)	Per/ Cft	13,203.29	361.90	
		Type C (Ratio 1: 2: 4)(Slab)	Per/ Cft	13,817.21	361.90	
		Type C (Ratio 1: 2: 4)(Stair / Ramp)	Per/ Cft	289.00	361.90	
		MUMTY FLOOR				
		Type B (Ratio 1: 1 ¹ / ₂ : 3)(Column)	Per/ Cft	90.00	414.90	
		Type C (Ratio 1: 2: 4)(Lintel)	Per/ Cft	18.00	384.75	
		Steel Reinforcement				
9	CH:6/9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars) (ii) Deformed bar (Grade 60)	100Kg	146,482.48	13,223.50	

10	CH:6/25	Providing and fixing 1/8" (3 mm) thick 3" (75 mm) wide aluminium strip on horizontal and vertical expansion joints in walls, columns, ceilings and floors etc., including cost of clips/screws etc., complete in all respects:-				
	а	a) On interior surface (without mastic strip)	Per/Rft	332.72	91.35	
	b	b) On exterior surface (with mastic strip)	Per/Rft	33.34	94.95	
11	CH:6/32	Providing and fixing theremopore (foamed polythene) sheet in horizontal and vertical expansion joints:				
	b	b) 1 ¹ / ₂ " (40 mm) thick thermopore sheet	Per/Sft	199.36	15.90	
12	CH:6/33(a)	Providing and laying damp proof course of cement concrete 1:2: 4(using cement, sand and shingle), including bitumen coating :- (a) with one coat of bitumen and one coat of polythene sheet ii) 2" thick (50 mm)	100 Sft	2,615.06	5,293.45	
13	CH:6/35(a)	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating (a) with one coat of bitumen and one coat of polythene sheet ii) Ratio 1:3 b) ³ / ₄ " thick (20 mm)	100 Cft	3,525.00	3,424.15	
		Brick Work				
14	CH:7/-4i	Pacca brick work in foundation and plinth in:- Cement, sand mortar:-Ratio 1:6	100 Cft	8,961.20	17,558.45	
		GROUND FLOOR				
15	CH:7/5i	Pacca brick work in ground floor:-Ratio 1:5	100 Cft	26,019.00	19,211.40	

16	CH:7/5i	Pacca brick work in ground floor :-Ratio 1:4	100 Cft	1,912.88	19,734.60	
		MUMTY FLOOR				
17	CH:7/5i	Pacca brick work in Mumty floor:-Ratio 1:5	100 Cft	2,006.25	19,993.65	
		Flooring				
18	CH:7/30	Supplying and filling sand under floor; or plugging in wells	100 Cft	10,073.22	1,693.90	
19	CH:10/3	Providing, laying, watering and ramming brick ballast 1½ to 2"(40 mm to 50 mm) gauge mixed with 25 % sand, for floor foundation, complete in all respects	100 Cft	10,073.22	4,300.30	
20	CH:10/22	2"(50 mm) thick mosaic flooring, consisting of ¹ / ₂ "(13 mm) mosaic topping of one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over 1 ¹ / ₂ "(40 mm) thick floor of 1:2:4 cement concrete, including rubbing and polishing complete with finishing :-				
		(a) using grey cement	100 Sft	9,133.78	10,884.74	
		(b) using white cement	100 Sft	9,133.78	11,661.84	
21	CH:10/22	Mosaic dado or skirting with one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over ½"(13 mm) thick cement plaster 1:3, including rubbing and polishing, complete with finishing:- ii) ½"(13 mm) thick				
		(a) using grey cement	100 Sft	944.50	10,716.15	

		(b) using white cement	100 Sft	944.50	11,234.30	
22	CH:10/15(c)	Providing and laying topping of cement concrete 1:2:4, including surface finishing and dividing in panels:- 1 ¹ / ₂ "(40 mm) thick				
		Plinth Protection	100 Sft	3,114.00	3,848.20	
23	CH:10/42(a)	Providing and fixing marble strip of any shade for dividing the mosaic flooring into panels				
		a) Siz e 2" x 3/8 " (50 x 10 mm)	Per Rft.	14,074.54	6.60	
24	CH:10/29	Shisham wood boarding or strip flooring 3/4" (20mm) thick (sawn to required size) tongued and grooved or splayed rebated fixed with brass screws on deodar wood battens 1½ "x2"(40 x 50 mm),size placed at 12"(300 mm) centre to centre, including two coats of bitumen laid hot on the base. (Stage Floor)	100 Sft	240.00	39,298.35	
		Surface Rendring				
25	CH:11/10(b)	Cement plaster ratio 1:3 under soffit of RCC roof slabs only , upto 20' height. 3/8" (10 mm) thick. (ceiling plaster)	100 Sft	25,804.19	2,074.05	
26	CH:11/9(b)	Cement plaster 1:5 on internal walls upto 20' (6 m) height and 1/2" (13 mm) thick.	100 Sft	35,002.88	1,747.25	
20	CH:11/9(c)	Cement plaster 1:5 on internal walls upto 20' (6 m) height and 3/4" (20 mm) thick.	100 Sft	35,002.88	2,370.10	
27	CH:11/10(b)	Extra for lime, mud or cement plaster and pointing from 20' (6.00 m) and above for each additional 10' (3.00 m) height or part thereof.	100 Sft	724.00	235.35	

		Wood Work				
28	CH:12/7(a)	First class deodar wood wrought joinery in doors and windows, etc. panelled, or panelled or glazed, or fully glazed, fixed in position, including chowkat, holdfast, hinges, tower bolts, chocks, rubber stop, cleats/G.I. clamps, handles and chord with hooks, etc. complete (excluding sliding bolt or lock):- a) 2" thick (50 mm)	Per/Sft	106.00	1,198.10	
29	CH:12/50	Providing and fixing 1 ¹ / ₂ " (40mm) thick solid flush door shutter (Approved Factory Manufactured) with commercial ply (5 mm thick) on both sides double pressed and deodar wood lipping 2"x3/8" (50mm x 10mm) around shutter including chromium plated fitting, iron hinges with aluminum kick plate 22 SWG on both sides & finger plate complete in all respect.	Per/Sft	2,331.00	363.10	
30	CH:12/51	Providing and fixing panelled door of M.S. sheet, with forged door leaves of M.S. sheet 22 SWG fitted in hollow frame chowkat 3"x4½" (75 mmx113 mm) made of M.S. sheet 18 SWG filled with plain cement concrete 1:3:6 etc. complete with all fittings and hammer painting, including carriage to site and fixing in position.	Per/Sft	49.00	414.00	
31	CH:12/58(b)	Providing and fixing ornamental wooden architrave $3'' x(1\frac{1}{2}'' \text{ tapered to }\frac{1}{4}'')$ all along the door frame complete in all respect.b)Deodar wood architrave	Per/Sft	2,437.00	44.95	
32	CH:12/21	Providing and fixing, approved quality mortice lock complete in aal respect	Each	87.00	551.05	

33	CH:12/54	Providing and fixing M.S. flat ¹ / ₂ "x1/8" (13mm x 3mm) grill including ³ / ₄ " x 1/8" (20 mmx3 mm) M.S. flat frame, in windows of approved design, including painting three coats, complete in all respects.	Per/Sft	2,553.00	213.60	
		Painting and Warnishing				
34	CH:13/31	Preparing surface and painting with emulsion paint:-3 Coats New Surface	100 Sft	95,809.94	1,153.45	
35	CH:13/32A	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect:- 3 Coats New Surface	100 Sft	2,331.25	2,885.85	
36	CH:13/7	French polishing new surface	100 Sft	212.00	2,726.70	
37	CH:13/5(c)	Preparing surface and painting of doors and windows any type (including edges) 3 Coats New Surface	100 Sft	4,702.00	1,562.65	
		Metal Work				
38	CH:25/53(a)	Providing and fixing all types of glazed aluminum windows of anodized champagne colour partly fixed and party sliding using deluxe section of approved manufacturer having Frame of size 100mm x 30mm using frame at bottom, at top and side leaf leaf frame sections of 60mm x 23mm at top & bottom and size 45mm x 25mm at center and size45mm x 25mm at sides, Jali leaf frame size 43mm x 13mm i/c fine quality aluminum jali, 5mm thick imported tinted glass with rubber gasket using approved standard latches, wheel, stopper, brush chennel angle joint and hardware etc. complete in all respect.a) 1.6 mm thick	Per/Sft	2,553.00	672.45	
		Roofing & Water Proofing				

39	CH:9/45a	Providing and Laying Insulation material of Extruded Polystyrene XPS in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M, compressive strength 250-400 kpa, R-value 5 per inch thickness and water obsorbtion (1% by volume, cell structure clored cell) i/c cutting and placing in position complete in all respect. a) 1" thick	100 Sft	30,700.00	5,688.00	
40	CH:9/5	Single layer of tiles 9"x4 ¹ / ₂ "x1 ¹ / ₂ " (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.i/c P/L polythene sheet 500 gauge	100 Sft	30,700.00	6520.5	
41	CH:9/15	Construction of Khuras on roof 2' x 2' x 6"	Each	32.00	497.55	
42	CH:9/16	Bottom Khuras of brick masonry in cement mortar 1:6,4'x2'x4 ¹ / ₂ " (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	Each	32.00	836.2	
		Total "A"(Schedule items)				
		NON SCHEDULE ITEMS-B				
		Fair Face Gutka Cladding				
1	Approved N.S	Providing and fixing Fair Face Gutka cladding upto required height using special gutka of size 9"x2-1/4"x2-1/4" i/c cutting ghutka where necessary laying in 1:3 cement sand motor mixed with red oxide pigment with 3/8" thick joints an nominal filling the gap complete i/c cost of steel nails at every 2 ft center to center horizontally and in every 4th course vertically of cladding, embedded half in the wall and half embedded in cladding complete in all respect and as approved and directed by the Engineer Incharge.	Per/Sft	26,913.00	112.00	
		Flooring				

2	N.S	Providing and laying Porcelain tiles flooring (full body) 16"x16"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respects as approved & Directed by the Engineer Incharge. (Master, DWV series Polished (Dark color) class SB	Per/Sft	10,467.30	227.00	
3	N.S	Providing and laying CERAMIC FLOOR TILES (PREMIUM) Size 12"x12"x3/8" (CFT MATT) laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respects as approved & directed by the Engineer Incharge. Flooring. STILE TILES (Shabbir Tiles)	Per/Sft	926.63	158	
		Skirting				
4	N.S	Providing and laying Porcelain tiles flooring (full body) 16"x4"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respects as approved & Directed by the Engineer Incharge. (Master, DWV series Polished (Dark color) class SB Dado/ Skirting	Per/Sft	784.61	240.00	
		Dado				
5	N.S	Providing and laying CERAMIC WALL TILES (PREMIUM) size 12"x18"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respects as approved & directed by the Engineer Incharge. STILE TILES (Shabbir Tiles) Dado/ Skirting	Per/Sft	2,118.00	171.00	
		Entrance Steps / Podium				

6	N.S	Providing and fixing 3/4" thick pre-polished Marble Slab Granite uniform texture full width area above 2 sft laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment i/c beveling charges on exposed edges complete in all respect as approved / directed by the Engineer Incharge	Per/Sft	1,833.93	613.00	
7	N.S	Stair StepsProviding and fixing 3/4" thick pre-polishedMarble Slab Sunny Grey uniform texture fullwidth area above 2 sft laid over 3/4" thick cementsand mortar (1:2) i/c filling joints in white cement& matching pigment i/c beveling charges onexposed edges complete in all respect as approved/ directed by the Engineer Incharge	Per/Sft	280.00	323.00	
		Miscellenious				
8	Approved N.S	Providing and Fixing stainless steel non-magnetic railing consisting of main pipe 2" dia 16 SWG imported (China) & 3'-4" height balustrades @ 2' C/C consisting of 1-1/2" to 2 " wide and 3/16" thick 2-No stainless steel strips with studs i/c 3/4" dia 16 SWG 3-NO stainless steel pipes longitudinally passing in between the strips of balustradess i/c bends, base plate etc with bottom stainless steel "tiki" & cover, fixing with rowal bolt (3" to 2½" long) i/c steel polishing etc complete in all respects as approved by the engineer incharge (All members will be of non- magnetic)	Per Rft.	152.00	2,000.00	

9	N.S	Providing and Fixing Mineral Acoustic Sheet Ceiling 600mm x 600mm x 12mm, aluminum "Tee" & aluminium angles 25mm x 25mm x 1mm, including hanger clips, jointing clips and GI 14 SWG wire, accessories, and as per Specifications, as shown on drawing, complete in all respects, as per Sample approved by the Engineer	Per/Sft	3,230.00	108.00	
10	N.S	Providing and installing Acoustic Wall Paneling comprising fabric of approved quality and shade buttoning & stitching over 1" thick foam pasted on 1/2" thick 4'x6' MDF Board with German White Glue fixed to 2"x1-1/2" of Deodar rough wood frame including wood preservative treatment with termite proofing (both along the wall and for angular walls also at the back of inclined surface), complete in all respects as shown on drawing and as per sample approved by the Engineer.	Per/Sft	2,353.00	542.00	
11	Approved N.S	Providing and Fixing of M.S steel chowkats full jam of 10-1/2"x 2" single rebate of M.S 16 SWG with up to 4 Nos 5" long C.P hinges screwed / welded M.S flat iron 2" x 1/8" in back of hinges welded inside i/c 3/8" dia bars 2 Nos bottom with 6 NOS 6" long hold fast angle iron 1.5"x1.5"x3/16" also back fill with P.C.C 1:2:4 i/c painting with red oxide and bitumen coating on surface touching with concrete complete in all respect.	Per/Sft	2,086.00	330.00	
12	Approved N.S	Providing and Fixing M.S steel chowkats full jam of 5-1/2"x 2" single rebate of M.S 16 SWG with up to 4 Nos 5" long C.P hinges screwed / welded M.S flat iron 2" x 1/8" in back of hinges welded inside i/c 3/8" dia bars 2 Nos bottom with 6 NOS 6" long hold fast angle iron 1.5"x1.5"x3/16" also back fill with P.C.C 1:2:4 i/c painting with red oxide and bitumen coating on surface touching	Per/Sft	245.00	291.00	

		with concrete complete in all respect.				
13	N.S	Providing and Fixing Pre-Cast Roof (Izhar Made of Girder & Slab) as shown in drawings complete in all respect and approved by the Engineer Incharge	Per/Sft	410.00	182.52	
14	N.S	Supply, provide and fix in position uPVC rain water down pipe lines conforming to ISO 3633:1991 and BS 3505 1968 (wall thickness 3.2mm) including proper joints complete in all respects, and system leak-free:				
		4" dia	Rft	562.00	250	
15	N.S	Provide and fix uPVC plain bends with grating (as rain water inlets at roof), water tight connection leak-free:				
		4" dia	Each	32.00	1,400	
16	N.S	Provide and fix uPVC shoe bends (as rain water outlets), water tight connection leak-free				
		4" dia	Each	32.00	1,000	
		Total "B"(Non Schedule items)				
		Net Total (A+B)				

ESTABLISHMENT OF SUB-CAMPUS OF UNIVERSITY OF AGRICULTURE FAISALABAD, AT DEPALPUR - OKARA (HEC FUNDED)

ACADEMIC BLOCK

BILL OF QUANTITIES

PUBLIC HEALTH WORKS

Sr #	REF. Nos CH/ITEM	Description	Unit	Qty.	Unit Rate (Rs)	Rate Quoted by The Contractor	Amount (Rs)
MR	S, 2nd BI-A	NNUAL-2018 (1st July-2018 to 31st December-2018) DIS	FRICT O	KARA			
		SCHEDULE ITEMS					
1	19-1-i	Providing and fitting glazed earthen ware water closet European type, excluding seat and cover:-	Each	8	2,191.50		
		G.I Piping					
2	23-22-iii	Providing, laying, cutting, jointing, testing and disinfecting G.I. pipeline in trenches, (Cost of sockets, tees, elbows, bends, valves, crosses, unions and plugs, etc. is included in the rates) with socket joints, using G.I pipes of B.S.S. 1387-1967 complete in all respects, with specials and valves. Heavy Duty					
		a) ³ / ₄ " i/d (20 mm) 3.25mm thick	Rft	770	141.15		
		SEWERAGE					

3	21-1	Providing and laying RCC pipe, moulded with cement concrete 1:1.5:3, with spigot socket or collar joint, etc. including cost of reinforcemnt, confirming to B.S. 5911: Part I: 1981, class "L" including carriage of pipe from factory to site of work, lowering in trenches to correct alignment and grade, jointing, cutting pipes where necessary, finishing and testing, etc. complete.				
		(i) 150 mm (6:) i/d	Rft	683	190.50	
		(ii) 225 mm (9:) i/d	Rft	220	343.20	
4	23-27	Providing, laying, cutting, jointing, testing and disinfecting. pipes of B.S.S. with `D' 2 and valves is not included in the Class working pressure complete in all respects:-				
		a) 2" i/d (75 mm)	Rft	30	79.50	
		b) 3" i/d (75 mm)	Rft	308	169.00	
		c) 4" i/d (110 mm)	Rft	330	281.60	
5	21-17	Providing and fixing 6" thick RCC manhole cover with 3"x3"x1/4" angle iron frame, 22" i/d as per standard drawing STD/PD no. 7 of 1977, complete in all respects.	Per set	15	4,729.90	
				Total "A"(S	Schedule items)	
		NON SCHEDULE ITEMS				
1	PH-0018	P/F OF WATER CLOSET ORRISA PATTERN FULL SIZE 3 star Made	Nos.	8	2,850	
2	PH-0017	P/F OF FLUSHING CISTERN. 3 Star Made	Nos.	8	3,300	
3	PH-0016	P/F OF WASH H& BASIN WITH PEDESTAL & FITTINGS. 3 Star Made	Nos.	4	5,894	
4	PH-0019	P/F OF VANITY COUNTER BASIN INCLUDING COST OFFITTINGS. 3 Star Made	Nos.	10	4,340	

					1	1	1
5	PH-0008	P/F OF BASIN MIXER (801) 1/2" DIA Faisal Made	Nos.	14	4,750		
6	PH-0001	P/F OF BIB COCK 1/2" DIA. (005) Master Made	Nos.	16	1,145		
7	PH-0004	P/F OF TEE STOP COCK (1404) 1/2" DIA. Faisal Made	Nos.	44	1,232		
8	PH-0022	P/F OF SOAP Dish 2007). Master Made	Nos.	14	525		
9	PH-0022	Providing and fixing toilet paper holder heavy duty master made with fitting material.	Nos.	16	1,200		
10	PH-0021	P/F OF TOWEL RAIL WITH BRACKETS CHROMIUM PLATED (5302). Faisal Made	Nos.	10	920		
11	PH-0115	Making Sewerage Connection To Existing Manhole Of Main Sewerage Pipe Line Including Cost Of Plugging, Dewatering, De-Silting, Making Hole In Wall Repairing And Restoration Etc Complete In Working Condition	Job	1	1,200		
12	PH-0014	P/F OF MUSLIM SHOWER (1406). Faisal Made	Nos.	16	867		
		PPR PIPE					
13	PH-0025	P/F OF PPRC PIPE 25MM DIA COMPLETE WITH ALL RESPECT. Dadex Made	180	Rft	135		
14	PH-0027	P/F OF PPRC PIPE 32MM DIA COMPLETE WITH ALL RESPECT. Dadex Made	385	Rft	145		

15	PH-0029	P/F OF PPRC PIPE 40MM DIA COMPLETE WITH ALL RESPECT. Dadex Made	564	Rft	230	
16	PH-0031	P/F OF PPRC PIPE 50MM DIA COMPLETE WITH ALL RESPECT. Dadex Made	330	Rft	340	
17	PH-0033	P/F OF PPRC PIPE 63MM DIA COMPLETE WITH ALL RESPECT. Dadex Made	550	Rft	525	
18		Valves				
		Providing and installing valves of following nominal dia,				
	PH-0111	P/F OF H&LE VALVE 1".Faisal Made	1	Nos.	900	
	PH-0112	P/F OF H&LE VALVE 1-1/2" DIA. Faisal Made	6	Nos.	1,700	
	PH-0113	P/F OF GATE VALVE 2" DIA. Kitz Made	2	Nos.	6,300	
19		Vent Cowel				
	PH-0095	P/F OF NIKASI VENT COWL 110MM.DADEX MADE:				
		4" i.d	20	Nos	190	
20		Multifloor Trap				
	PH-0020	P/F OF NIKASI P-TARP 110MM. DADEX MADE	40	Nos.	1,700	
21	NS	Glass				

22	NS	Providing and fixing best quality distortion free imported Belgium glass (beveled) mirrors 5mm thick, with hard board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings. Valves	98	Sqft	180	
		Providing and installing ball valves of following nominal dia, Kitz make or approved Equaivalent, including jointing, fitting, painting, testing, complete in all respects to match with PPR and PE pipes of following diameters.				
		32 mm	1	Nos	5,106	
		63 mm	4	Nos	22,000	
23	NS	Providing and installing Gas Geyser including All types of Valves & fitting accessories, complete in all respect as per specifications and drawings.				
		35 Gallon Geyser	2	Nos.	30,000	
		6 Gallon Instant Geyser	2	Nos.	15,000	
24	NS	Clean Out				
		Providing and fixing clean out with threads ferule fixed in pipe with the help of solvent, as shown on drawing, complete in all respects as per specifications and drawings.				
		3" i.d	12	Nos.	4,450	
		4" i.d	5	Nos.	5,450	
25	NS	Gully Trap				
		Providing and making Gully trap 1'-0"x1'-0" internal size including 9" thick brick masonry (1:4), 1/2" th. Plastering (1:3) i/side, benching with PCC 1:2:4 4" th. with cement finish, including steel grating cover, chamber 6" dia RCC Pipe and connection with manhole. complete in all respect as per specifications, drawings & Engineer in charge.	10	Nos.	15,000	
26	NS	Manhole				

		Providing and constructing 2'x2' manhole with brick work including excavation, backfilling, RCC work PCC 1:2:4 cambering, plastering in 1:4 inside & outside, water proofing etc., upto 6' depth and size including ladder top slab, 18" heavy duty C.I. Manhole cover with frame "ALPINE INDUSTRIAL CON", "CME", "NPC SUPER" as shown on the drawings, complete in all respect as per specifications and drawings.	15	Nos.	25,000	
27	NS	Khurra / R.W.C.B				
		Providing and making top khurra/R.W.C.B using 3" thick				
		plain cement concrete 1:2:4 matching with roof tiles with				
		steel trowel finishing at desired level including curing, finishing, complete in all respect as per specifications and				
		drawings.				
		i) 2'x2'.	15	Nos.	1.500	
		$1) \Delta \Delta \Sigma \ .$			chedule items)	
			104		Total (A+B)	

ESTABLISHMENT OF SUB-CAMPUS OF UNIVERSITY OF AGRICULTURE FAISALABAD, AT DEPALPUR - OKARA (HEC FUNDED)

ACADEMIC BLOCK

BILL OF QUANTITIES

ELECTRICAL WORKS

Sr No.	REF. Nos CH/ITEM	Item. No.	Description	Unit	Estimated Quantity	Rate (Rs)	Rate Quoted by The Contractor	Amount (Rs)
MRS	5, 2nd BI-AN	NUAL-	2018 (1st July-2018 to 31st December-2018) DIS	TRICT O	KARA			
A) S	A) Schedule Items							
1		1.1	Light Circuits.					
			Supply, installation and commissioning of light circuit wiring, to be wired with 3x2.5mm sq. (1P+1N+1CPC) PVC insulated 300/500 V grade wire, manufactured by M/s. Pakistan Cables Ltd, Pioneer Cables,Newage Cables in and including cost of 3/4" dia. heavy duty PVC conduit make Beta, Shavyl or Premium, recessed in , walls, Roof slab, or on surface or above false ceiling or as required as per site conditions, all PVC conduit accessories, pull boxes, steel pull wires , complete in all respects. Each circuit shall have independent CPC. Maximum wiring of 2 light circuits can be pulled through 1" dia. PVC conduit. (CK=33)					

[Ref: Item 10 (a- iii)/24]]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1 No. 1x 2.5 mm (7/0.029")	Rft	8250	15.95	
[Ref: Item 3(iii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 25mm	Rft	2750	47.85	
	1.2	1st Light Point Controlled By One Switch				
		Wiring of first light point controlled by one switch and wired with 2x1.5 mm sq.(P+N) PVC insulated wires 300/500 V grade, manufactured by M/s. Pakistan Cables Ltd, Pioneer Cables,Newage Cables in and including cost of 3/4" dia. heavy duty PVC conduit make Beta, Shavyl or Premium, recessed in wall, columns slabs or above light carrier all PVC conduit accessories, 3" high PVC junction boxes, pull boxes, steel pull wires, PVC flexible conduit from ceiling junction box to light fixture with brass chuck nut including 1.5mm sq. PVC insulated wire of colour green as CPC, M.S. sheet steel switch box 16 SWG with earth terminal and 2 coats of enameled paint, M.S. box shall be of the same size as that of 1, 2 or 3 gang flush type plate switches, excluding cost of gang type light switches 10 amps (CK=33)				
[Ref: Item 10 (a- i)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only)	Rft	12540	11.7	

1			i) Cost of 1 No. 1x 1.5 mm (3/0.029")				
	[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 20mm	Rft	6270	41.45	
			Supply and erection of PVC sheet box for recessed wiring, including making holes for ragulators, switches and plugs, complete in all respect as approved by the engineer incharge.				
		1.3	Point- Points Wiring				
			Same as Item No. 1.2 but Loop wiring of a light point from fist light point with 2x1.5 mm sq.(P+N) PVC insulated wires 300/500 V grade, manufactured by M/s. Pakistan Cables Ltd, Pioneer Cables,Newage Cables in and including cost of 3/4" dia. heavy duty PVC conduit make Beta, Shavyl or Premium recessed in wall, columns slabs or above light carrier all PVC conduit accessories, 3" high PVC junction boxes, pull boxes, steel pull wires, PVC flexible conduit from ceiling junction box to light fixture with brass chuck nut including 1.5mm sq. PVC insulated wire of colour green as CPC, M.S. sheet steel switch box 16 SWG with earth terminal and 2 coats of enameled paint. (CK=478)				
	[Ref: Item 10 (a- i)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1 No. 1x 1.5 mm (3/0.029")	Rft	35850	11.7	

[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specialsii) Cost of 20mm PVC pipe	Rft	17925	41.45	
	1.4	<u>1-13 Amps Switch Socket</u>				
		Wiring and fixing of one 13A light plug sockets from DB to point with 2x1 core 4 mm sq. + 1x2.5mm sq. CPC, PVC wires 300/500 Volt grade, M/s. Pakistan Cables Ltd, Pioneer Cables,Newage Cables in and including cost of 1" dia. heavy duty PVC conduit, make Beta, Shavyl or Premium recessed in walls, floor, above false ceiling or as required as per site conditions, all PVC conduit make Beta accessories, pull boxes, steel pull wires, M.S. box shall be made of 16 SWG sheet steel with earth terminal having 2 coats of antirust paint , M.S. box shall be of the same size as that of 1- 13Amps switch socket, including cost of 13 Amps 3 pin combined switch socket make BUSH Pakistan. Wiring shall be done directly from the MCB installed in the respective DB without any claim of circuit. (CK=31)				
[Ref: Item 10 (a- iv)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x4 mm2 (7/0.036")	Rft	5580	22.95	
[Ref: Item 10 (a- iii)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only)	Rft	2790	15.95	

		ii) Cost of 1x2.5 mm2 (7/0.029")				
[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials iii) Cost of 25 mm PVC pipe	Rft	2790	47.85	
	1.5	Loop-Loop- 13 Amps Switch Socket				
		Same as above item No. 1.4 but loop wiring of 13A light plug socket outlet from DB to point with 2x1 core 4 mm sq. + 1x2.5mm sq. CPC, PVC wires 300/500 Volt grade, make M/s. Pakistan Cables Ltd, Pioneer Cables,Newage Cables in and including cost of 1" dia. heavy duty PVC conduit, make Beta, Shavyl or Premium recessed in walls, floor, above false ceiling or as required as per site conditions, all PVC conduit make Beta accessories, pull boxes, steel pull wires, M.S. box shall be made of 16 SWG sheet steel with earth terminal having 2 coats of antirust paint, M.S. box shall be of the same size as that of 1-13Amps switch socket, including cost of 13 Amps 3 pin combined switch socket make BUSH Pakistan. Wiring shall be done directly from the MCB installed in the respective DB without any claim of circuit.				
[Ref: Item 10 (a- iv)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x4 mm2 (7/0.036")	Rft	9540	22.95	

10	Ref: Item 0 (a- i)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) ii) Cost of 1x2.5 mm2 (7/0.029")	Rft	4770	15.95	
	[Ref: Item (ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials iii) Cost of 25 mm PVC pipe	Rft	4770	47.85	
		1.6	1 x 3 Pin 15 Amps Switch Socket				
			Wiring and fixing of one 20A power sockets outlet with 2x 4mm2(P+N) & 1x2.5mm2 as CPC single core cables from DB to point combined switch socket outlet creamic Base with Rocker Switch (Shuttered) Silver Point, Neon Light Heavy duty 2P+E, 20A,250V. PVC wires 300/500 Volt grade, M/s. Pakistan Cables Ltd, Pioneer Cables,Newage Cables in and including cost of 1" dia. heavy duty PVC conduit, make Beta , Popular recessed in walls, floor, above false ceiling or as required as per site conditions, all PVC conduit make Beta, Shavyl or Premium accessories, pull boxes, steel pull wires, M.S. box shall be made of 16 SWG sheet steel with earth terminal having 2 coats of antirust paint , M.S. box shall be of the same size as that of 1-15 Amps 3 pin combined switch socket make BUSH Pakistan. Wiring shall be done directly from the MCB installed in the respective DB without any claim of circuit.(CK=22)				

[Ref: Item 10 (a- iv)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x4 mm2 (7/0.036")	Rft	3960	22.95	
[Ref: Item 10 (a- iii)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x2.5 mm (7/0.029")	Rft	1980	15.95	
[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 25 mm	Rft	1980	47.85	
	1.7	M.S Floor Outlet Box type "A" Mild Steel (10" x 10" x 4-1/2" Deep)				
		Wiring with 2x 4mm2(P+N) & 1x2.5mm2 as CPC single core cables from DB to point, Fabrication, supply and installation of M.S (Box) made of mild steel 16 SWG of appropriate size but not less than 10" x 10" x 4- 1/2" deep with openable hinged cover 2.5mm thick, all necessary materials / arrangements for fixation of sockets, holes for passage of outgoing cables, rubber, groumet, earthing terminal, and partition made of backlite as shown on drawing. Boxes shall be installed flush with floor. M.S Floor Outlet Boxes shall be suitable for installation of the following: Rates to be quoted shall be for floor boxes including cost of the following accessories and paid for actual quantity of M.S Box				

	installed.Detail of M.S box.				
[Ref: Item 10 (a- iv)/24]	Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x4 mm2 (7/0.036")	Rft	5040	22.95	
[Ref: Item 10 (a- iii)/24]	Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) ii) Cost of 1x2.5 mm2 (7/0.029")	Rft	2520	15.95	
[Ref: Item 3(ii)/24]	Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials iii) Cost of 25 mm PVC pipe	Rft	2520	47.85	
	Wiring of 1 x 5 Pin 32 Amps Plug Socket				
	 Wiring and fixing of 1 x 5 pin 32 Amps combined Plug socket away from switch board and wired with 4x1 core 6 mm sq. + 1x4mm sq. CPC, PVC wires 300/500 Volt grade, make M/s. Pakistan Cables Ltd, Pioneer Cables,Newage Cables, in and including cost of 1" dia. heavy duty PVC conduit, make Popular, Beta, Shavyl or Premium recessed in walls, floor, above false ceiling or as required as per site conditions, all PVC conduit make Beta accessories, pull boxes, steel pull wires, M.S. box shall be made of 16 SWG sheet steel with earth terminal having 2 coats of antirust paint, M.S. box shall be made of 16 SWG sheet steel with earth terminal having 2 coats of antirust paint, complete in all 				

		respect				
[Ref: Item 10 (a- iv)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x6 mm2 (7/0.044")	Rft	4400	32.25	
[Ref: Item 10 (a- iii)/24]		Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) ii) Cost of 1x4mm2 (7/0.036")	Rft	2200	22.95	
[Ref: Item 3(ii)/24]		Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials iii) Cost of 25 mm PVC pipe	Rft	2200	47.85	
	1.8	Fan Points Conforming to same specifications as mentioned above for Item No. 1.2. but wiring of ceiling fan points, including cost of MS hook box circular type having MS hook 16 mm (5/8") dia make Unique, Beta to be casted in RCC slab, MS switch board of appropriate size to accommodate dimmer, complete in all respects, including dimmer provided by the Fan manufacturer.(CK=13)				
[Ref : Item 49/24]	i	Supply and erection of 3/8" (10 mm) dia M.S. bar fan hook placed at the time of casting of slab.	Each	166	39.45	
[Ref : Item 14(ii)/24]	ii	Back Box (7"x4")	Each	166	221.90	

[Ref: Item 10 (a- i)/24]	iii	Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x 1.5 mm (3/0.029")	Rft	15770	11.7	
[Ref: Item 3(ii)/24]	iv	Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 20mm	Rft	7885	41.45	
	1.8	WallBracketFanPointsConforming to same specifications as mentioned above for Item No. 1.2. but wiring of Wall bracket fan points, including cost of MS hook box MS switch board of appropriate size to accommodate dimmer, complete in all respects, including dimmer provided by the Fan manufacturer.(CK=30)				
[Ref: Item 10 (a- i)/24]	iii	Supply and erection of single core PVC insulated copper conductor cables in prelaid PVC pipe/M.S conduit G.I pipe\wooden strip batten/wooden casing and capping/G.I wire/trenches (rate for cables only) i) Cost of 1x 1.5 mm (3/0.029")	Rft	2850	11.7	
[Ref: Item 3(ii)/24]	iv	Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull boxes, hooks, cutting jharries, and repairing surface, etc, complete with all specials ii) Cost of 20mm	Rft	1425	41.45	

Exhaust Points Fans Conforming to same specifications as mentioned above in Item No. 1.2 but wiring of exhaust fan point excluding cost of hook box but including cost of 10 A switch make Clipsal M.S box 16 1.9 SWG with earth terminal, 2 coats of antirust point, all fixing accessories, 1-5 Amps ceiling rose and including one switch of 10 amps switch. (CK=18) Supply and erection of single core PVC insulated copper conductor cables in prelaid [Ref: Item PVC pipe/M.S conduit G.I pipe\wooden strip 10 (a-Rft 1710 11.7 batten/wooden casing and capping/G.I i)/24] wire/trenches (rate for cables only)i) Cost of 1x 1.5 mm (3/0.029") Supply and erection of PVC pipe for wiring recessed in wall including inspection boxes pull [Ref: Item boxes, hooks, cutting jharries, and repairing Rft 855 41.45 3(ii)/24] surface, etc, complete with all specials ii) Cost of 20mm 2 L.T. Power Cables

			Supply at site, installation, testing and commissioning of PVC insulated non armoured copper conductor cable 600 / 1000 Volt grade manufactured by any one of the manufacturers M/s. Pakistan Cables Ltd, Pioneer Cables,Newage Cables in prelaid conduits / trenches to be installed as per routes shown on drawings including cost of all necessary materials, connections, identification tags, cables lugs properly crimped at both ends for the following sizes complete in all respects. Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the employers electrical engineer before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.					
	-	2.1	4 Core Cable PVC/PVC	_	_	_	-	
	13-d- (vii)/24		c) 4 core 185mm sq. armoured cable	Rft	150	3702.95		
	13-c- (vii)/24		c) 4 core 25mm sq. un-armoured cable	Rft	450	504.55		
		2.2	<u>Circuit Protective Conductor (CPC)</u>					
	12-(iv)/24		c) 1 core 70mm sq.	Rft	150	330.50		
	12-(i)/24		c) 1 core 16mm sq.	Rft	450	77.90		
3			PVC Conduit					

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		3.1	Supply at site of PVC conduit heavy duty make Beta, Shavyl or Premium to be concealed in RCC slabs, walls, floor, columns above false ceiling or as required as per site conditions including cost of all PVC conduit accessories, steel pull wires, complete in all respects.				
	3(vi)/24		e) 2" Did PVC Conduit	Rft	400	84.25	
		3.2	PVC PIPE FOR TELEPHONE SYSTEM				
			Supply and erection of PVC pipe for wiring recessed in walls, including inspection boxes, pull boxes, hooks, cutting harries, and repairing surface, etc., complete with all specials.				
	3-(iii)/24	a	25 mm i/d	Rft	350	47.85	
	3-(v)/24	b	40 mm i/d	Rft	75	71.05	
		3.3	PVC PIPE FOR COMPUTER SYSTEM				
			Supply and erection of PVC pipe for wiring recessed in walls, including inspection boxes, pull boxes, hooks, cutting harries, and repairing surface, etc., complete with all specials.				
	3-(iii)/24	a	25 mm i/d	Rft	270	47.85	
	3-(v)/24	b	40 mm i/d	Rft	125	71.05	
		3.2	PVC PIPE FOR P.A SYSTEM				
			Supply and erection of PVC pipe for wiring recessed in walls, including inspection boxes, pull boxes, hooks, cutting harries, and repairing surface, etc., complete with all specials.				
	3-(iii)/24	а	25 mm i/d	Rft	550	47.85	
					Total A-(Scl	hedule Items)=	
B) N	on-Schedule	Items.					
1			Switch & Sockets.				

M.S Floor Outlet Box type "A" Mild Steel 1.1 (10" x 10" x 4-1/2" Deep) Fabrication, supply and installation of M.S (Box) made of mild steel 16 SWG of appropriate size but not less than 10" x 10" x 4-1/2" deep with openable hinged cover 2.5mm thick, all necessary materials / arrangements for fixation of sockets, holes for passage of outgoing cables, rubber, groumet, earthing terminal, and partition made of backlite as shown on drawing. Boxes shall be installed flush with floor. M.S Floor Outlet Boxes shall be suitable for installation of the following: Rates to be quoted shall be for floor boxes including cost of the following accessories and paid for actual quantity of M.S Box installed.Detail of M.S box. 1- P/F of MS Sheet Box 16 SWG including cutting, molding, welding, painting with E-1079 Sft 28 2100 powder coated paint (3-Coats) with lock and key arrangement complete in all respects. 2- Supply & fitting of 13A switch socket Clipsal Each E-1057 56 561 Made 1- Computer Out Let make BUSH, CLIPSAL, LEGRAND, RJ-45. Approved Each 56 1102 1- Telephone Out Let make BUSH, CLIPSAL, N.S LEGRAND, RJ-45. i) Providing and Installation of PVC Sheet Back Approved 1.1 Box 7.5 cm x 7.5 cm (6"x3") (Non Metalic) Each 89 78.00 NS China Made i) Providing and Installation of PVC Sheet Back Approved Box 7.5 cm x 7.5 cm (3"x3") (Non Metalic) 1.2 Each 199 120.00 NS China Made

E-1053	1.3	Supply & fitting of 10A, 1 Gang 1 Way Switch Clipsal Made Bush / Orange made, As per approval of Engineer Incharge.	Each	3	248.00	
E-1048	1.4	Supply & fitting of 10A, 2 Gang 1 Way Switch Clipsal Made Bush / Orange made, As per approval of Engineer Incharge.	Each	8	366.00	
E-1050	1.5	Supply & fitting of 10A, 4 Gang 1 Way Switch Clipsal Made Bush / Orange made, As per approval of Engineer Incharge.	Each	10	669.00	
E-1051	1.6	Supply & fitting of 10A, 5 Gang 1 Way Switch Clipsal Made Bush / Orange made, As per approval of Engineer Incharge.	Each	12	777.00	
E-1052	1.7	Supply & fitting of 10A, 6 Gang 1 Way Switch Clipsal Made Bush / Orange made, As per approval of Engineer Incharge.	Each	62	989.00	
E-1057	1.8	Supply & fitting of 13A switch socket Clipsal Made	Each	137	561.00	
E-1059	1.9	Supply & fitting of 15A switch socket Clipsal Made	Each	22	610.00	
E-1046	1.10	Supply & fitting of industrial socket 32A, Clipsal made	Each	20	2622.00	
	2.1	LIGHTS				
E-1018	i	Supply & fitting of LED Down Light 18 Watts Surface mounted DN027C LED CW 6500K Philips Made	Each	610	2703	
E-1009	ii	Supply & fitting of LED flood light 50 watts IP65 BVP 135 Philips Made	Each	6	7665	
E-1054	2.2	Supply & fitting of Fan speed controller switched Clipsal Made	Each	166	1242.00	

	E-1045		Supply & fitting of ceiling Fan 56"copper (Energy Efficient Pak Fan Deluxe Model as approved by PEECA)	Each	166	4498	
	Approved NS		Providing and Installation of PVC Fan Box Including Rod Popular Made.	Each	166	150	
		2.4	Exhaust Fans				
			Supply & fitting of Exhaust Fan 12" copper plastic body (Energy Efficient Model) G.F.C or Equivalent Made NEECA/PEECA Approved				
	E-1021	i	12" dia (Plastic Body).	Each	18	3118	
		2.3	Wall Bracket Fan				
	Approved NS		Providing and installtion of wall bracket fan 18" Size Lahore Fan. (Energy Efficient Fan as approved by PEECA)	Each	30	4101	
3			L.T. Switchgear				
			Distribution Board Concealed				

1 1 1				1	I	
	Supply, installation, connection of wires cables,					
	and commissioning of distribution boards					
	concealed type or to be installed on wall, made					
	of 16 SWG M.S. sheet with hinged door,					
	handle, catcher, earthing bar and neutral link					
	with necessary holes, nuts, bolts, washers,					
	earthing of DB door with braided copper					
	internal wiring, PVC cable glands for incoming					
	and out going wires/cables, 2 earthing terminals					
	designation label engraved on plastic sheet of					
	appropriate size to be pasted on the front side of					
	DB, 3 phase indication lamps of colour red,					
	yellow, blue, make Hager, Legrand (France)					
	SV122 SV128 SV126 moulded case circuit					
	breaker with overload and short circuit					
	protection (MCCB) to be installed on the					
	incoming side, Icu not less than 10 KA, and for miniature circuit breakers Icu 6 KA make G.E					
	(Europe & USA), M.G., Legrand (France),					
	ABB (Italy) Terasaki (Japan) having overload					
	and short circuit protection, including cost of all					
	necessary fixing accessories complete in all					
	respects make Tariq Electric, Billal					
	Engineering, PEL, Techno Engineering.					
	DBLP-1G,DBLP-2G,DBLP-3G,					
	01 No. Incoming 75 Amp MCCB TP, RC=10					
	kA					
	24 No. Outgoing 10/16/20 Amp MCB SP, RC=6					
Appendix '	kA					
c' <u>3.1</u>	a) Volt Selector Switch	Each	4	57582		
	b) 1 No Digital voltmeter	Lacii	+	57562		
Page No-6	c) 3 No indication lights 220 Volt					
	d) 3 Ph N & Earth copper busboars					
	e) Internal wiring & Line-up terminal, Cable					
	Numbering Sleeves etc					
	f) Panel steel grid painted along with locking					

In-charge Tender Cell, UAF

	Appendix '		arrangementMPB(MainPanelBoard-WAPDA)01 No. Incoming 630 AmpMCCB TP, RC=35kA04 No. Outgoing 75 AmpMCCB TP, RC=16kA01 No. Outgoing 200 AmpMCCB TP, RC=16kAa)3NoDigitalammeter				
	c' Page No-7	1.4	 b) 3 No Digital voltmeter c) 3 No indication lights 220 Volt d) 3 Nos. Current Transformer 300/5A e) 300 Amp. 3 Ph N & Earth copper busboars f) Internal wiring & Line-up terminal,Cable Numbering Sleeves etc g) Panel steel grid painted along with locking arrangement h) Cost Includes Brass Cable glands, Thimbles, Nut bolts, Installation, Termination and Commissioning 	Each	1	329634	
4		4.1	Earthing System				
	Appendix ' c' Page No-8	4.2	Supply, installation, commissioning and testing of the earthing system including cost of the following 3 meter long of 5/8"dia tinned copper electrodes. up-to water level including cost of boring and lowering complete with clamp and 2 X 70mm2 stranded copper conductor from copper rod to ground surface in 1-1/2" uPVC Pipe class D with watering cap manhole with cover as per detail complete in all respects. and the resistance should up to 1-3 Ohms. the installation / test should be conducted in presence of engineer inchage.	Job	2	76058	
		4.2	Earth Connecting Point				

	Appendix ' c' Page No-3	4.3	Supply, installation of earth connecting points consisting of copper plate 12" long, 2" wide and 1/2" thick to be installed as and where shown on drawings on the wall of the trenches, complete with fixing arrangement, brass nuts bolts complete in all respects to facilitate connections of Incoming copper strips and Outgoing CPC. Manhole	Nos.	2	3278	
	Appendix ' c' Page No-4	<u></u>	Constructing of 2'x 2'x 2.5' (internal size) including earth work 4" thick PCC 1:4:8 9" thick first class burnt brick work in 1:5 mortar, plastered inside in 1:5 cement sand and 4" thick RCC cover with grade 40 reinforcement.	Nos.	2	7238	
5			<u>Telephone System</u>				
		5.2	<u>Telephone Outlet</u>				
	Approved N.S		Supply / Erection of Bush made data single socket (RJ-11) including 16 SWG back box of 3"x3" size complete in all respect.	Each	28	778.48	
		5.3	Telephone Cables				
			Providing & laying multi pairs (Twisted) PVC insulated / underground cable of best quality (siemens, Germany, or Best imported as per approved sample) in pre-laid PVC recessed conduit or fixed cable duct/ Tray as per satisfaction of the Electrical Engineer.				
	Approved N.S	а	4-5 Pair Cable CAT-6/UG/PVC (0.6 mm sq) (From DP to each Room)	Rft	9850	22	
		5.4	Telephone Junction Box 20 Pairs (TJB)				

	Appendix ' c' Page No-5		Supply, installation and commissioning of telephone junction box 250/5 make Krone Germany Krone No. 6525/1/022/00 of approved colour, designation label as per drawing, including disconnecting modules of 20 Nos. Type 2/10 LSA Plus Profile Krone Germany No. 6089/1/102/02 for incoming and out going telephone cables, all necessary accessories complete in all respects.	Each	2	6,466	
6		<i>c</i> 1	Computer System				
		6.1	Data Outlet				
	Approved N.S		Supply / Erection of Bush made data single socket (RJ-45) including 16 SWG back box of 3"x3" size complete in all respect.	Each	27	1222.47	
		6.2	Computer Cables				
			Wiring for each data/computer point included cost of 1 no. 4 pair CAT-6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed manufactured by Krone, 3M, Clipsal to support data rates upto1GBits/s. or more than 1 GBits/s with connections at both ends, designation labels				
	Approved N.S	a	1 no. 4 pair CAT- 6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed.	Rft	11450	22	
		6.3	Junction Box				
	E-1079		Supply, installation and commissioning of junction box for incoming and out going Computer cables,all necessary accessories complete in all respects.	Sft	3	2,100	
7			Public Adress System				
			Wiring Point				
	Appendix ' c' Page		Wiring of Each P.A Points, wired with PA Speaker Cable, 2 x 1.23mm, Bare CU Type,	Each	950	80	

In-charge Tender Cell, UAF

No-9	manufactured by Ventilux Inc,, complete in all respects and ready for connections with P.A devices.						
Appendix ' c' Page No-10	Supply and installation of Wall Speaker with 5W~15W selection mode. Make TOA.	Each	12	18139			
Appendix ' c' Page No-11	Supply and installation of Goosenect Dynamic Microphone. Make TOA.	Each	1	20170			
Appendix ' c' Page No-12	Supply and installation of Amplifer - 240 Watts with 3 Mic Input and 2x AUX input. Make TOA.	Each	1	95078			
		То	tal B(Non-Sch	edule Items)=			
		Total (A					

ESTABLISHMENT OF SUB-CAMPUS OF UNIVERSITY OF AGRICULTURE FAISALABAD, AT DEPALPUR - OKARA (HEC FUNDED)

CLOCK TOWER

BILL OF QUANTITIES

CIVIL WORKS

Item No.	MRS ITEMS NO	Description of Items	Unit	Qty	Rate (Rs.)	Rate Quoted by The Contractor	Amount (Rs.)
MRS,	2nd BI-ANNU	AL-2018 (1st July-2018 to 31st December-2018) DI	STRICT C	OKARA			
		SCHEDULE ITEMS-A					
	CH:6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-					
1	(a)(i)	Reinforced cement concrete slabs, beams, girders, Lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects;-					
		FIRST FLOOR					
		Type B (Ratio 1: 1 ¹ / ₂ : 3)(Column)	Per/ Cft	132.99	414.90		
		Type C (Ratio 1: 2: 4)(Lintel)	Per/ Cft	3.75	384.75		

Contractor

In-charge Tender Cell, UAF

		Type C (Ratio 1: 2: 4)(Beam)	Per/ Cft	82.75	384.75	
		Type C (Ratio 1: 2: 4)(Slab)	Per/ Cft	174.75	384.75	
		SECOND FLOOR				
		Type B (Ratio 1: 1 ¹ / ₂ : 3)(Column)	Per/ Cft	123.75	437.75	
		Type C (Ratio 1: 2: 4)(Beam)	Per/ Cft	46.75	407.60	
		Type C (Ratio 1: 2: 4)(Slab)	Per/ Cft	81.61	407.60	
		Steel Reinforcement				
2	CH:6/9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars) (ii) Deformed bar (Grade 60)	100Kg	1,531.04	13,223.50	
		Brick Work				
		FISRT FLOOR				
3	CH:7/5i	Pacca brick work in fisrt floor:-Ratio 1:5	100 Cft	478.12	19,993.65	
4	CH:7/5i	Pacca brick work in fisrt floor :-Ratio 1:4	100 Cft	97.99	20,516.85	
		SECOND FLOOR				
5	CH:7/5i	Pacca brick work in second floor:-Ratio 1:5	100 Cft	327.30	20,948.80	
		Flooring				
		Surface Rendring				

6	CH:11/9(b)	Cement plaster 1:5 on internal walls upto 20' (6 m) height and 1/2" (13 mm) thick.	100 Sft	1,288.45	1,747.25	
		Wood Work				
7	CH:12/50	Providing and fixing 1½" (40mm) thick solid flush door shutter (Approved Factory Manufactured) with commercial ply (5 mm thick) on both sides double pressed and deodar wood lipping 1½"x3/8" (40mm x 10mm) around shutter including chromium plated fitting, iron hinges with aluminium kick plate 22 SWG on both sides & finger plate complete in all respect.	Per/Sft	24.50	363.10	
8	CH:12/21	Providing and fixing, approved quality mortice lock complete in aal respect	Each	1.00	551.05	
		Painting and Warnishing				
9	CH:13/31	Preparing surface and painting with emulsion paint:-3 Coats New Surface	100 Sft	1,288.45	1,153.45	
10	CH:13/32A	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect:- 3 Coats New Surface	100 Sft	226.95	2,885.85	
11	CH:13/5(c)	Preparing surface and painting of doors and windows any type (including edges) 3 Coats New Surface	100 Sft	49.00	1,562.65	
		Metal Work				

12	CH:25/53(a)	Providing and fixing all types of glazed aluminium windows of anodized champagne colour partly fixed and party sliding using deluxe section of approved manufacturer having Frame of size 100mm x 30mm using frame at bottom, at top and side leaf leaf frame sections of 60mm x 23mm at top & bottom and size 45mm x 25mm at center and size45mm x 25mm at sides, Jali leaf frame size 43mm x 13mm i/c fine quality aluminum jali, 5mm thick imported tinted glass with rubber gasket using approved standard latches, wheel, stopper, brush chennel angle joint and hardware etc. complete in all respect.a) 1.6 mm thick	Per/Sft	12.28	672.45	
		Roofing & Water Proofing				
13	CH:9/5	Single layer of tiles 9"x4 ¹ /2"x1 ¹ /2" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.i/c P/L polythene sheet 500 gauge	100 Sft	85.52	6520.5	
14	CH:9/15	Construction of Khuras on roof 2' x 2' x 6"	Each	2.00	497.55	
		Total "A"(Schedule items)				
		NON SCHEDULE ITEMS-B				
		Fair Face Gutka Cladding				

1	Approved N.S	Providing and fixing Fair Face Gutka cladding upto required height using special gutka of size 9"x2-1/4"x2-1/4" i/c cutting ghutka where necessary laying in 1:3 cement sand motor mixed with red oxide pigment with 3/8" thick joints an nominal filling the gap complete i/c cost of steel nails at every 2 ft center to center horizontally and in every 4th course vertically of cladding, embedded half in the wall and half embedded in cladding complete in all respect and as approved and directed by the Engineer Incharge.	Per/Sft	1,422.41	112.00	
		Miscellenious				
2	Approved N.S	Providing and Fixing of M.S steel chowkats full jam of 10-1/2"x 2" single rebate of M.S 16 SWG with up to 4 Nos 5" long C.P hinges screwed / welded M.S flat iron 2" x 1/8" in back of hinges welded inside i/c 3/8" dia bars 2 Nos bottom with 6 NOS 6" long hold fast angle iron 1.5"x1.5"x3/16" also back fill with P.C.C 1:2:4 i/c painting with red oxide and bitumen coating on surface touching with concrete complete in all respect.				
		a) Single rebate	Per/Sft	24.50	330.00	
3	N.S	Supply, provide and fix in position uPVC rain water down pipe lines conforming to ISO 3633:1991 and BS 3505 1968 (wall thickness 3.2mm) including proper joints complete in all respects, and system leak-free:				
		4" dia	Rft	24.50	250	
4	N.S	Provide and fix uPVC plain bends with grating (as rain water inlets at roof), water tight connection leak-free:				

		4" dia	Each	2.00	1,400	
5	N.S	Provide and fix uPVC shoe bends (as rain water outlets), water tight connection leak-free				
		4" dia	Each	2.00	1,000	
6	Approved N.S	Providing and fixing Tower Clock 6ft Dia, Qty 4 Nos. i/c cost of labour and material, clock machinery and all parts including carriage, fixing at any height etc. complete in all respects i/c fixing in position as approved by the engineer incharge.				
			Whole Job	1	1,591,200	
7	N.S	Providing and fixing spiral stair case 4-Ft dia consisting of 4" dia M.S pipe and M.s steps of 1.5" x 1.5 "x 1/8" angle iron and M.S. chequerred plate 1/8" thickness, railing 25mm dia M.S. pipe hand rail and bracing at mid-level 25mm dia M.S. pipe & L: 62.5 x 62.5 x 10mm balusters 900mm high on each step including all steel members, 2 coats of anti-rust red oxide primer with 2-3 min. coats of ICI Enamel paint or approved equal, including welding and connections with concrete/masonry, etc., complete in all respect as per drawings and instruction of the Engineer.				
			Job	1	69,600	
		Total "B"(Non Schedule items)				
		Net Total (A+B)				