

Bid Evaluation Report

1. Name of Procuring Agency: International Center for Chemical and Biological Sciences, University of Karachi.
2. Tender Reference No: CED/42/140217
3. Tender Description/Name of work/item: Construction works for Strengthening of Research Programs at H.E.I. Research Institute of Chemistry at ICCBS, University of Karachi
4. Method of Procurement: Single Stage-Single Envelope
5. Tender Published: Sr. No: 31438, 2147483647 SPPRA ID with held, Daily Dawn, Jang, Kawish on 25th Jan, 2017
6. Total bid Sold: 07
7. Total bid Received: 02
8. Technical Bid Opening date: Nil
9. No. of technically qualified firms: 02
10. Firms Rejected: 00
11. Financial Bid Opening date: 14th February, 2017

PURCHASE COMMITTEE ICCBS INSTITUTIONS


1. PROF. DR. M. SHAIQ ALI

Chairman (I.C.C.B.S)


2. DR. FARZANA SHAHEEN

Member (I.C.C.B.S)


3. DR. HAFIZ-UR-REHMAN

Member (I.C.C.B.S)

Members from Institution


1. SYED JEHAZEB

External Member


2. MR. ASJAD ASAD

External Member

Members outside the Institution

12. Participated Firms are:

S No	Name of Firm or Bidder	Cost offered by the Bidder	Ranking in terms of cost	Comparison with Estimated cost	Reasons for acceptance/rejection	Remarks
0	1	2	3	4	5	6
1.	M/s Wakeel Enterprises	113,717,666.79	1 st Lowest Evaluated bidder	10.9% below	Recommended by the Procurement Committee	Accepted
2.	M/s Ammar Enterprises	146,464,653.43	2 nd Lowest Evaluated bidder	14.77% above	Not recommended by the Procurement Committee due to higher price	Not Accepted

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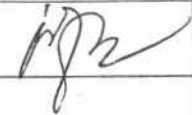
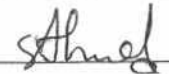
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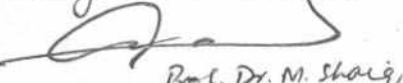
STRENGTHENING OF RESEARCH PROGRAMME
HEJ RESEARCH INSTITUTE OF CHEMISTRY
AT
INTERNATIONAL CENTER FOR CHEMICAL AND BIOLOGICAL SCIENCES
UNIVERSITY OF KARACHI.


Tender Notice no. CED/42/140217. DATE 14/02/2017

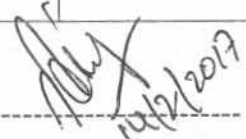
TENDER OPENING SHEET


S.No	Name of Bidder	Pay Order No	Amount of Pay Order	Bid Amount	Remarks	Bidder Signature
1	M/s Ammar Enterprises	11835220	28,30,000/-	14,10,78,364/-		
2	M/s SMK Construction co					
3	M/s Bahria Foundation					
4	M/s Haque & Sons					
5	M/s Wakeel Enterprises	11970376	2,400,000/-	11,38,52,666		
6	M/s Willayatullah and Sons					
7	M/s wali Construction Company					
8	M/s					
9	M/s					



Dr. Faizana Shabeer



Prof. Dr. M. Sharif Ali


Mr. Asjad Asad


Mr. Waqif


Sr. Engr. Sadia J. Anwar


Dr. Hafiz
- Rakun



Mr. Jehanzeb


INTERNATIONAL CENTER FOR CHEMICAL AND BIOLOGICAL
SCIENCES
UNIVERSITY OF KARACHI
KARACHI-75270


Tender Opening Minutes

Tender/ Retender Notice No. CED/42/140217 was opened on 14th February, 2017 at 3.00 P.M. Total 02 Nos. of bid(s) was/were submitted and accepted.

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External Member


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External Member

Members outside the Institution

BIDDER'S QUALIFICATION REPORT

Tender / Re-Tender # CED/42/140217


S. No.	Bidder Name	Complete Company Profile	Client List	Similar Nature Work Experience (At least last three years)	Financial Statement submitted (last three years)	Affidavit for litigation / arbitration	PEC registration	Remarks
1.	M/s Wakeel Enterprises	Y	Y	Y	Y	Y	Y	Accepted as the bidder submitted all details
2.	M/s Ammar Enterprises	Y	Y	Y	Y	Y	Y	Accepted as the bidder submitted all details


PURCHASE COMMITTEE ICCBS INSTITUTIONS


Convener
Purchase Committee


Dr. Farzana Shaheen
Internal Member


Dr. Hafiz-ur-Rehman
Internal Member


Mr. Syed Jehanzeb
External Member


Mr. Asjad Asad
External Member

Members from Institution

Members from outside the Institution

INTERNATIONAL CENTER FOR CHEMICAL AND BIOLOGICAL SCIENCES
UNIVERSITY OF KARACHI


MINUTES OF THE BUILDING COMMITTEE MEETING
TENDER NO.CED/42/140217


CONSTRUCTION WORKS FOR STRENGTHENING OF RESEARCH PROGRAMS OF H.E.J. RESEARCH INSTITUTE OF CHEMISTRY AT ICCBS, UNIVERSITY OF KARACHI:


The meeting of 110th building committee was held on 24th February, 2017. In this meeting, the bid evaluation report was presented by Consultant M/s Atif Nazar Associates. They elaborated that seven bidders purchased the bidding and contract documents. Out of which two bidders participated in the tender. They further informed that M/s Wakeel Enterprises is evaluated as the lowest bidder. Their quoted amount is 10.9% lower than the Engineer's estimate and they fulfilled all of the mandatory requirements of the tender.

On the recommendations of building Committee:

PURCHASE COMMITTEE ICCBS INSTITUTIONS


1. **PROF. DR. M. SHAIQ ALI**
Chairman (I.C.C.B.S)


2. **DR. FARZANA SHAHEEN**
Member (I.C.C.B.S)


3. **DR. HAFIZ-UR-REHMAN**
Member (I.C.C.B.S)

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COMPARATIVE STATEMENT

SRTRENGTHENING OF RESEARCH PROGRAMME AT
INTERNATIONAL CENTRE FOR CHEMICAL & BIOLOGICAL SCIENCES
HEJ RESEARCH INSTITUTE OF CHEMISTRY
UNIVERSITY OF KARACHI.



(CLIENT)
INTERNATIONAL CENTRE FOR CHEMICAL & BIOLOGICAL SCIENCES
HEJ RESEARCH INSTITUTE OF CHEMISTRY
UNIVERSITY OF KARACHI.




ATIF NAZAR (PVT.) LTD.
(CONSULTANT)

CONSTRUCTION OF LABORATORY, VIROLOGY & UTILITY BUILDINGS FOR STRENGTHENING OF RESEARCH PROGRAMS
HEJ RESEARCH INSTITUTE OF CHEMISTRY
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GRAND SUMMARY - COMPARATIVE ESTIMATE

DESCRIPTION	ENGINEERS ESTIMATE	M/S WAKEEL ENTERPRISES	M/S AMMAR ENTERPRISES
Laboratory Building, Civil, Electrical and Plumbing Works	Rs. 76,138,236.11	70,333,518.81	89,029,050.34
Virology & Utility Building, Civil, Electrical and Plumbing Works	Rs. 51,475,634.34	43,384,147.98	57,435,603.09
Total	Rs. 127,613,870.45	113,717,666.79	146,464,653.43
Percentage ABOVE or BELOW		10.9% Below	14.77% Above


Prof. Dr. Shaig Ali


Prof. Dr. Farzana
Shaheen


Dr. Hafiz-ur-Rahman


Mr. Jehanzeb


Mr. Ayjad



CONSTRUCTION OF LABORATORY, VIROLOGY & UTILITY BUILDINGS FOR STRENGTHENING OF RESEARCH PROGRAMS
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SUMMARY OF LABORATORY BUILDING - COMPARATIVE ESTIMATE

DESCRIPTION	ENGINEERS ESTIMATE	M/S WAKEEL ENTERPRISES	M/S AMMAR ENTERPRISES
Total (Part-A) Civil Work	Rs. 51,764,261.11	49,035,668.81	55,471,270.34
Total (Part-B) Electrical Work	Rs. 19,208,775	14,557,850	28,038,840
Total (Part-C) Plumbing Work	Rs. 5,165,200	6,740,000	5,518,940
Total (Part-A+B+C)	Rs. 76,138,236.11	70,333,518.81	89,029,050.34

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COMPARATIVE - CIVIL WORKS (SCHEDULE WORKS) - LABORATORY BUILDING

S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	EXCAVATION: Excavation for foundation trenches and drains in all kinds of soils (except gravelly and murum soil, wet silt, clay or mud conglomeration of gravel and boulders, soft, sandy, or dsintegrated sandy and hard rock) and back filling the excavated material in foundation, plinth or under floor including breaking clods, watering, consolidation by ramming in layers not exceeding 9 inches (229 mm) in depth to full compaction, dressing and disposal of surplus excavated stuff as directed, lead upto one chain (30.5 R.m) and lift upto 5 feet (1.52 m). Page # 17/1, 17/5.				
i)	Ordinary soil.	19875	Cft	535.09	106,349.14
ii)	Hard Rock	19875	Cft	2,410.85	479,156.44
2	Providing & Filling: Approved quality earth in depressions with in a radius of 5 miles (8km) breaking clouds, leveling, dressing, watering and consolidating in 6 inches (152mm) layers etc. complete including all lifts. Page # 19, Item# 14	23000	Cft	2,314.41	532,314.30
3	D.P.C.: P/C 2" inches (51mm) thick damp proof course with cement concrete 1:2:4 cast in situ using graded screened bajri of 3/4 inch 19mm and down gauge mixed with any approved water proofing agent including compacting curing form work and its removal etc. Complete but excluding the cost of water proofing agent. Page # 64, Item # 3	1500	%Sft	2,659.79	39,896.85
4	BAILING OUT WATER: Bailing or Plumbing out sub Soil water during excavation concreting cost in site concrete or masonry works in foundation etc. Only three operation to be allowed trend volumn under water to be measured first time to excavation second time for connectivity and third time for cost in site concrete or masonry work in foundation etc. Page# 22, Item # 40	90000	%Cft	298.35	268,515.00
5	STONE SOLING: Providing & Laying Soling Stone 6 to 9 inches (152 mm to 229 mm) size under floor including packing with spawly and chips and consolidating etc complete Page # 211, Item # 1	3778	%Cft	3,251.34	122,835.63
6	C.C. FLOOR: Providing and laying 1:4:8 cement concrete bed under floors using graded stone balrest 2 inches (51 mm) and down gauge with leveling & ramming, watering and curing etc. complete. Page # 190/0	3778	%Cft	10,315.36	389,714.30
7	C.C.1:3:6 CAST IN SITU: Providing and laying in situ 1:3:6 cement concrete in walls more than 6 inch (152 mm) in thickness in superstructure using screened graded bajri 3/4 inch (19 mm) and down gauge including compacting, curing, cost form work and its removal etc. Complete in ground ground floor	551	%Cft	17,109.69	94,274.39
Item no.8, 9, 10, 11, 12 & 13 are deleted					
14	STEEL REINFORCEMENT: Providing and laying cold worked twisted ribbed steel reinforcement bars with minimum yield stress of 60,00 psi with and including the cost of straightening, cutting, bending, binding, wastage, complete in all kinds of RCC work. Page #159/68	110000	Kg	110.89	12,197,900.00
15	BLOCK MASONRY: Providing and laying 1:3:6 cement concrete solid machine made block masonry 4 to 6 inches (102 mm to 152 mm) thick using graded screened bajri 3/4 inch (19 mm) and down gauge set in cement sand mortar 1:6 including scaffolding raking out joints and curing etc. complete in frist floor superstructure. Page # 76/34, 81/92, 82/100				
i)	Ground Floor	4363	%Cft	15,752.92	687,299.90
ii)	First Floor	5684	%Cft	15,752.92	895,395.97
16	GLAZED TILE FLOORS: Providing and laying floor of 6 mm (approx:1/4") thick colored glazed tile 12" X 12" (304 mm X 304 mm) of master make (Pakistani) first grade in first floor laid over 1" (25mm) thick cement mortar 1:2 (1 cement and 2 sand) including jointing and washing the tiles with white cement slurry a matching color (by using pigment in white cement) and curing etc. complete. Page # 196/63, 197/69	740	%Sft	18,554.73	137,305.00
(a)	Second Floor including stair tower.	740	%Sft	18,687.42	138,286.91

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COMPARATIVE - CIVIL WORKS (SCHEDULE WORKS) - LABORATORY BUILDING

S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
17	GLAZED TILE DADO AND SKIRTING: Providing and fixing 1/4" (6 mm approx) thick of Pakistani first grade colored glazed tiles 8" X 10" (203 mm X 254 mm) size in dado and skirting in first floor over 1/2" (13 mm) thick base of cement mortar 1:3 setting of tiles in slurry of grey cement over mortar base including filling the joint with white cement slurry to matching the color and washing the tile, curing and cleansing etc. complete. Page # 218/49, 218/51				
i)	Ground Floor	1140	%Sft	10,210.10	116,395.14
b)	First Floor	1140	%Sft	10,443.14	119,051.80
18	MS DOOR FRAMES: Providing and fixing M.S. moulded steel door frames of 5.73" X 2-1/2" (146 mm X 63 mm) manufactures from mild steel sheet of 18 gauge (1.41 mm) conforming to B.S.S 1245 having a double rebate size 1-1/2" X 1/2" (38 mm X 12 mm) provision of 3 Nos. M.S. plate, section 1-1/2" X 1/4" (38 mm X 6 mm) (2 Nos. 6 inch long welded with frame at not less than 10 points and 1 Nos. 12 inch long welded with frame at not less than 20 points), with one locking box of same sheet (point welded inside the frame) 6 Nos. 6 inches long flat iron fixing lugs of 1-1/4" X 3/16" section, treated with special red oxide primer coat all around including cutting holes and filling the cavity with cement concrete 1:2:4 etc. in any floor at any height complete as directed by the Engineer-in-Charge. Page # 240/44				
i)	Ground Floor	935	Rft	185.34	173,292.90
ii)	First Floor	935	Rft	185.34	173,292.90
19	FULLY VENEERED SHUTTERS: Providing and fixing 1-1/2" thick solid core deodar wood flushed veneered door shutters, with and including the cost of commercial plywood facing 3 mm thick (3 ply) on both faces, fixed over best quality deodar wood frame 2 inches wide around 6 inches wide lock rail and 2 nd class deodar wood solid core, including 1/4" thick best quality deodar wood lapping on all sides as per approved drawing, manufactured under power driven hydraulic press, including the cost of approved iron fitting but excluding the cost handles and locking arrangements. Page # 265/61-a				
i)	Ground Floor	406	Sft	571.68	232,102.08
ii)	First Floor	406	Sft	571.68	232,102.08
20	Porviding and fixing with brass screws Alpa knob set lock of approved design (No. 7000) Japan make, cutting wood to required shape and size with two operating keys as per direction of the engineer - in - charge. Page 303/76				
i)	Ground Floor	25	Each	2,531.56	63,289.00
ii)	First Floor	25	Each	2,531.56	63,289.00
21	Porviding and fixing with brass screws Alpa knob set bath latch of approved design No. 8000, Japan make, cutting wood to require shape and size with two operating keys as per direction of Engineer - in - charge. Page # 303/77				
i)	Ground Floor	7	Each	2,376.86	16,638.02
ii)	First Floor	7	Each	2,376.86	16,638.02
22	DOOR CLOSER: Providing and fixing with brass screws or specially supplied screws hydraulic door closer Rayobi or approved design and shape No. 72, Japan make, cutting wood etc to required shape and size as per direction of Engineer - in - Charge. Page # 303/70				
i)	Ground Floor	18	Each	2,420.50	43,569.00
ii)	First Floor	18	Each	2,420.50	43,569.00
23	SPIRIT POLISHING: Applying French or spirit polishing, two coats of approved make on wood work at any height in any floor. Page # 336/89-90				
i)	Ground Floor	850	%Sft	3,193.92	27,148.32
ii)	First Floor	850	%Sft	3,193.92	27,148.32



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COMPARATIVE - CIVIL WORKS (SCHEDULE WORKS) - LABORATORY BUILDING

S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
24	PLAIN GLASS: Providing and fixing plain glass panes 5 mm thick to M.S. Box Pipe / Aluminum doors, windows and ventilator etc including the most cost of labor but excluding the cost of M.S square pipe beading, rubber packing and screw in any floor at any height. Page # 254/119				
i)	Ground Floor	1800	Sft	88.91	160,038.00
ii)	First Floor	1800	Sft	88.91	160,038.00
25	ALUMINUM SLIDING WINDOW: Providing and fixing fully glazed bronz anodized aluminum sliding window as per british standard manufactured by lucky, Alcop, Krusdon, Pakistan cable and A.C.P. (fixing through their approved fabricators), Executive model section double or single glazed 101 mm x 37 mm and 1.6 mm thick including the cost of aluminum netting, fitting, with all accessories cutting hole etc and making good damages to wall etc. complete as required in any floor as per direction of engineer - in - charge but excluding the cost of glass panes. Page # 245/71				
i)	Ground Floor	2238	Sft	683.72	1,530,165.36
ii)	First Floor	2238	Sft	683.72	1,530,165.36
26	PLASTER (CEILING): 1/2" (13 mm) thick cement plaster 1:3 on ceiling, walls and columns etc.. In basement, plinth, first and ground floor including making eyes, corns and curing etc, complete. Page # 320/3, 327/87				
i)	Ground Floor	16697	%Sft	2,237.47	373,590.37
ii)	First Floor	16697	%Sft	2,237.47	373,590.37
27	PLASTER (EXTERNAL): 3/4" thick cement plaster 1:6 on walls and columns etc. in basement, plinth, first and ground floor including edges, corners, and curing etc. complete Page # 320/10, 327/87	15298	%Sft	2,247.90	343,883.74
28	PLASTIC EMULSION PAINT: Painting with (ICI) Deluxe plastic emulsion paint VIP of approved shade two coats over and including the cost of one priming coat complete over plastered surface at any floor. Page # 334/162				
i)	Ground Floor	14500	%Sft	2,742.08	397,601.60
ii)	First Floor	14500	%Sft	2,742.08	397,601.60
29	VINYL DISTEMPER: Distemping with vinyl distemper (ICI) Deluxe Painted of approved make shade in two coats over and including the cost of one priming coat of lime wash including sand papering, dusting and filling the holes, cracks and inequalities, at any height in any floor. Page # 333/151				
i)	Ground Floor	10800	%Sft	1,052.54	113,674.32
ii)	First Floor	10800	%Sft	1,052.54	113,674.32
30	WEATHER SHIELD PAINT: Painting three coats with weather shield paint deluxe (ISI) make of approved shade on plaster surface external and including the cost of cleaning the surface, sand papering etc. complete at any height in any floor. (External) Page No. 334/172	5415	%Sft	1,406.88	76,182.55
31	IRON GRILL: Providing and fixing iron grills with required section of flat iron as per approved design including welding all sides of the section at the junction and fixing with sunk iron screws, painting two coats of red oxide paint etc. complete as required in any floor in masonry or concrete work. Page # 239/32				
i)	Ground Floor	33	Cwt	7,634.08	251,924.64
ii)	First Floor	33	Cwt	7,634.08	251,924.64
32	IRON PAINTING: Painting iron work with synthetic enamel paint of approved makes and shade two coat over and including the cost of one priming coat complete at any height in any floor. Page No. 333/159 Second floor including stair tower.				
i)	Ground Floor	3000	%Sft	2,776.62	83,298.60
ii)	First Floor	2400	%Sft	2,776.62	66,638.88



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S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
33	ALUMINUM SHEET: Providing and fixing aluminum sheet 22 gauge (1.15 mm thick) on wooden surface with sunken aluminum screw of required size as per direction of the engineer - in - charge. Page # 357/130				
i)	Ground Floor	150	Sft	225.13	33,769.50
ii)	First Floor	150	Sft	225.13	33,769.50
34	WOOD WORK PAINTING: Painting wood work with synthetic enamel paint of approved make and shade two coats over and including the cost of one priming coats over at any height in any floor. Page # 333/160				
i)	Ground Floor	150	%Sft	2,585.22	3,877.83
ii)	First Floor	150	%Sft	2,585.22	3,877.83
35	RAIN WATER DOWN PIPE: Providing and fixing 3" (80 mm) dia polyvinyl chloride rain water (PVC) down pipe with milde steel clamps, bolts and nuts fixed in cement concrete 1:2:4 etc. complete Page # 352/64	200	Rft	210.55	42,110.00
36	P.V.C SOCKET: Providing and fixing 3" (80 mm) dia polyvinyl chloride (PVC) socket for rain water down pipe. Page # 352/66	10	Each	159.56	1,595.60
37	P.V.C BEND: Providing and fixing 3" (80 mm) dia polyvinyl chloride (PVC) bend for any degree for rain water down pipe with clamps, bolts and nuts in cement concrete 1:2:4 etc. complete. Page # 353/68	6	Each	629.85	3,779.10
ENGINEERS ESTIMATE AMOUNT					23,783,541.11
M/s. Wakeel Enterprises				9% above on all items	2,140,518.70
				Total Amount	25,924,059.81
M/s. Ammar Enterprises				50% above on item 26 & 27	545,532.24
				Total Amount	24,329,073.34

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CONSTRUCTION OF LABORATORY, VIROLOGY & UTILITY BUILDINGS FOR STRENGTHENING OF RESEARCH PROGRAMS

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COMPARATIVE - CIVIL WORKS (NON-SCHEDULE WORKS) - LABORATORY BUILDING

S. No.	DESCRIPTION	QTY	UNIT	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
1	CLEARING OF SITE: Cleaning the site for proper execution of work including layout of structure with making centre lines, etc.. Complete as per drawing, specifications and instruction of Engineer-in-Charge.	1	Job	15,000.00	15,000.00	50,000.00	50,000.00	100,000.00	100,000.00
2	BOTICINA MARBLE FLOOR: Providing and laying Boticina or approved quality marble floor using tile of size 12"x24" x 3/4 inch of approved quality laid over bed of C.C. 1:4 using cement and screened sand mix with larger grain size not exceeding 1" , in approved pattern including filling of joints using white cement and pigment (if required) in match color of marble tiles including grinding and chemical polish complete in all respect as per instructions by the Architect / Engineer. (1st Floor).								
i)	Ground Floor	9632	Sft	195.00	1,878,240.00	180.00	1,733,760.00	220.00	2,119,040.00
ii)	First Floor	9632	Sft	205.00	1,974,560.00	180.00	1,733,760.00	225.00	2,167,200.00
3	BOTICINA MARBLE SKIRTING: Providing and laying Boticina or approved quality marble skirting using tile of size 24"x6" x 3/8 inch on walls wherever required or shown over drawing over 1/2" inch thick rough plaster of 1:6 cement sand mortar, including grinding, wax polishing, rounding corners, straightening of edges, levelling, curing and finishing etc. complete in all respect as per instructions by the Architect / Engineer. (1st Floor).								
i)	Ground Floor	1883	Sft	200.00	376,600.00	200.00	376,600.00	150.00	282,450.00
ii)	First Floor	1883	Sft	200.00	376,600.00	200.00	376,600.00	150.00	282,450.00
4	BOTICINA MARBLE TO STAIR STEPS: Providing and laying Boticina marble to stair steps using 1" thick full length marble slab of approved quality laid over bed of C.C. 1:3 using cement and screened sand mix with large grain size not exceeding 1/2" inch including filling joints using white cement and pigment (if required) in match color of marble tiles including grinding and wax polish complete in all respect as per instructions by the Architect / Engineer. (1st Floor).	200	Sft	435.00	87,000.00	350.00	70,000.00	380.00	76,000.00



CONSTRUCTION OF LABORATORY, VIROLOGY & UTILITY BUILDINGS FOR STRENGTHENING OF RESEARCH PROGRAMS
HEJ RESEARCH INSTITUTE OF CHEMISTRY
INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES-ICCBS
UNIVERSITY OF KARACHI

COMPARATIVE - CIVIL WORKS (NON-SCHEDULE WORKS) - LABORATORY BUILDING

S. No.	DESCRIPTION	QTY	UNIT	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
5	BOTICINA MARBLE TO STAIR RISER: Providing and laying Boticina marble to stair riser using 3/8"-thick of approved quality laid over bed of C.C. 1:6 using cement and screened sand mix with large grain size not exceeding 1/2" inch including filling joints using white cement and pigment(if required) in match tiles including grinding and wax polish complete in all respect as per instructions by the Architect / Engineer. (1st Floor).	150	Sft	200.00	30,000.00	160.00	24,000.00	170.00	25,500.00
6	EMERGENCY STAIR CASE: Providing and fixing M.S. Stair Case 1"x1" M.S. Angle (06 Nos) in landing 1" x 1/4" plate M.S. 1/4" thick M.S. Chaquered Plate 1" x 1/4" M.S. Angle detail given in the drawing as per direction of the engineer incharge.	350	Sft	2,400.00	840,000.00	500.00	175,000.00	2,500.00	875,000.00
7	ROOF SCREED: Providing and laying average 3" thick CC.1:2:4 screed using graded screened bajri 3/4" Inch and down gauge laid in proper gradient and slope etc. complete including glass dividing strips and making 3" x 3" C.C gola at parapet and roof junction etc. complete with painting the surface with plastic bitumen No 3 or 4 @ of 15 lbs per %Sft blinded with sand @ 2 Cft Per %Sft complete in all respect as per instructions by the Architect/Engineer. (1st Floor)	10800	Sft	85.00	918,000.00	75.00	810,000.00	95.00	1,026,000.00
8	Stainless Staircase Hand Railing providing and fixing stainless steel staircase hand railing floor mounted as per design comprising 2" dia s.s dia s.s pipe balustrades including all accessories complete in all respect as seen on the drawings and as directed by the Engineer (1st Floor)	80	Rft	1,600.00	128,000.00	1,500.00	120,000.00	2,000.00	160,000.00
9	Epoxy Coating providing and coating 1mm epoxy, monolithic, nonabsorbent, skid proof, resistant to wear as per direction of Engineer incharge.								
i)	Ground Floor	9632	Sft	190.00	1,830,080.00	9.00	86,688.00	220.00	2,119,040.00
ii)	First Floor	9632	Sft	200.00	1,926,400.00	9.00	86,688.00	230.00	2,215,360.00
10	False Ceilings providing and fixing monolithic suspended ceiling system op Gypsum board with epoxy paint. The fiber reinforcement board shall have 12mm rthickness with tapped edge for smooth joints treatment. The board size shall 8' X 4'	10800	Sft	225.00	2,430,000.00	95.00	1,026,000.00	360.00	3,888,000.00

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CONSTRUCTION OF LABORATORY, VIROLOGY & UTILITY BUILDINGS FOR STRENGTHENING OF RESEARCH PROGRAMS
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UNIVERSITY OF KARACHI

COMPARATIVE - CIVIL WORKS (NON-SCHEDULE WORKS) - LABORATORY BUILDING

S. No.	DESCRIPTION	QTY	UNIT	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
11	Wall Facing: P/L Envicrete or Equivalent wall facing tiles having minimum size (390 mm x 190mm x 90mm) (laid flat in courses) in cement mortar 1:3 cement painted in deep out grooves and in pattern as per direction of the engineer incharge including rubbing, curing etc. complete	12500	Sft	200.00	2,500,000.00	180.00	2,250,000.00	200.00	2,500,000.00
12	R.C.C FOUNDATION: Providing and laying reinforced cement concrete using screened graded bajri 3/4 inch (19 mm) and down gauge having a minimum work cube crushing strenght. Per sq Inch (15.52 N/mm ²) at 28 days with mix not leaner than in column footing of required shape including from work and its removal, compacting and curing etc. complete in foundation basement and plingth. Page # 135/1	13378	Cft	300.00	4,013,400.00	389.00	5,204,042.00	284.00	3,799,352.00
13	R.C.C PLINTH BEAMS: Providing laying reinforced cement concrete using screened graded bajri 3/4 inch (19 mm) and down gauge having a minimum works cube crushing strength of lbs. Per sq. inch (15.52 N/mm ²) at 28 days with mix not leaner than in plinth beams. of required shape and design including from work and its removal, compacting and curing etc. but excluding the cost of reinforcement in foundation basement and plingth. Page # 136/8	2043	Cft	330.00	674,190.00	369.00	753,867.00	335.00	684,405.00
14	R.C.C COLUMNS: Providing & laying reinforced cement concrete using crush graded boulders 3/4 inch and down gauge having a minimum works cube crushing strength of 3750 lbs. Per sq. inch and 28 days with mix leaner than 1:1 1/2: 3 in columns of square or rectangular shape of regular section including from its work or removal, compacting and curing etc. but excluding the cost of reinforcement in foundation basement and plingth. Page # 138/24, 156/136, 150/92								
i)	Ground Floor	1953	Cft	360.00	703,080.00	369.00	720,657.00	380.00	742,140.00
ii)	First Floor	1953	Cft	370.00	722,610.00	369.00	720,657.00	390.00	761,670.00

For
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COMPARATIVE - CIVIL WORKS (NON-SCHEDULE WORKS) - LABORATORY BUILDING

S. No.	DESCRIPTION	QTY	UNIT	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises		
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	
15	R.C.C BEAM & LINTELS: Providing and laying cement concrete using crush graded boulders 3/4 inch and down gauge having a minimum works cube crushing strength of 3000 lbs. Per sq. inch and 28 days with mix not leaner than 1:2:4 in straight beams lintels cantilever beams of required shape section including from its work or removal, compacting and curing etc. complete but excluding the cost of reinforcement. Page # 141/38, 156/136, 150/92									
i)	Ground Floor	1902	Cft	360.00	684,720.00	369.00	701,838.00	450.00	855,900.00	
ii)	First Floor	1902	Cft	370.00	703,740.00	369.00	701,838.00	455.00	865,410.00	
16	SLAB & PROJECTION: Providing and laying cement concrete using crush graded boulders 3/4 inch and down gauge having a minimum works cube crushing strength of 3000 lbs. Per sq. inch and 28 days with mix not leaner than 1:2:4 in ordinary slab 5 inch to 6 inches thick, including from its work or removal, compacting and curing etc. complete but excluding the cost of reinforcement. Page # 144/56, 156/136, 150/92									
i)	Ground Floor	6363	Cft	345.00	2,195,235.00	369.00	2,347,947.00	375.00	2,386,125.00	
ii)	First Floor	6363	Cft	355.00	2,258,865.00	369.00	2,347,947.00	385.00	2,449,755.00	
17	STAIRS: Providing and laying cement concrete using crush graded boulders 3/4 inch and down gauge having a minimum works cube crushing strength of 3000 lbs. Per sq. inch and 28 days with mix not leaner than 1:2:4 in straight stairs and landing of required section, including from its work or removal, compacting and curing etc. complete but excluding the cost of reinforcement. Page # 143/50, 156/136, 150/92									
i)	Ground Floor	940	Cft	375.00	352,500.00	369.00	346,860.00	400.00	376,000.00	
ii)	First Floor	940	Cft	385.00	361,900.00	369.00	346,860.00	410.00	385,400.00	
TOTAL AMOUNT						27,980,720.00		23,111,609.00		31,142,197.00
PERCENTAGE ABOVE OR BELOW OF ENGINEERS ESTIMATE						17.40% BELOW		11.30% ABOVE		

for

As per



CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS
HEJ RESEARCH INSTITUTE OF CHEMISTRY
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ICCBS, UNIVERSITY OF KARACHI

COMPARATIVE STATEMENT - ELECTRICAL WORKS SUMMARY

S#	DESCRIPTION	CURRENCY	Engineers Estimate	M/s. Wakeel Enterprises	M/s. Ammar Enterprises
1	Wiring & Accessories	Rs.	2,937,300	3,257,800	4,832,120
2	Light & Fan Fixtures	Rs.	2,257,500	965,900	2,050,200
3	Race Ways	Rs.	42,400	51,750	29,050
4	L.V. Switchgear	Rs.	1,670,000	1,950,000	5,691,000
5	Main / Sub-Main Feeders	Rs.	1,130,400	657,600	1,248,300
6	Data & Voice System	Rs.	224,475	76,700	104,070
7	Networking	Rs.	3,053,800	1,695,100	4,095,700
8	Fire Alarm System	Rs.	550,400	585,000	820,900
9	Multimedia System	Rs.	660,000	95,000	350,000
10	Close Circuit TV System.	Rs.	564,000	730,000	697,400
11	Cable TV System	Rs.	16,000	14,000	19,100
12	Earthing System	Rs.	80,000	200,000	450,000
13	Split-Type Air Conditioning	Rs.	4,560,000	3,424,000	6,210,000
14	Sound System	Rs.	81,000	205,000	107,000
15	Access Control Room	Rs.	1,381,500	650,000	1,334,000
Total Amount:			19,208,775	14,557,850	28,038,840

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CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,									
COMPARATIVE STATEMENT - PLUMBING WORKS									
S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
1	Wiring & Accessories								
1.1	Supply, installation & testing of following items, clipped to the surface or concealed in the building fabric, including all conduit & wiring accessories, as per drawings & instructions. Complete in all respect.								
a)	Wiring of light / fan point controlled by one switch with 3x1C-1.5 sq. mm PVC cables drawn in 20/25mm dia PVC conduits, including 1.5 mm, powder coated MS back box and gang switches. Clipsal / Orange cable Pakistan/fast/New Age Cable	508	Nos	1,800	914,400	2,000	1,016,000	2,100	1,066,800.00
b)	Wiring of light point to light point with 3x1C-1.5 sq. mm PVC cables drawn in 20/25mm dia PVC conduits.	127	Nos	1,200	152,400	1,000	127,000	1,150	146,050.00
c)	Wiring of light circuits from DB to switch board(s) with 3x1C-2.5 sq. mm PVC cables drawn in 20 mm dia PVC conduits, including termination & labelling at both ends.	64	Nos	2,800	179,200	3,000	192,000	4,400	281,600.00
d)	Wiring for power circuits from DB to 1st SSO Power Circuit with 3x1C-4 sq. mm PVC cables in 20 mm dia PVC conduit, including termination & labelling at both ends.	97	Nos	3,800	368,600	4,000	388,000	5,500	533,500.00
e)	Wiring for A/C circuit from DB to A/C unit with 3x1C-6.0 sq. mm PVC cables drawn in 25 mm dia PVC conduit, including termination & labelling at both ends.	44	Nos	4,500	198,000	6,000	264,000	7,500	330,000.00
f)	Wiring of SSO to SSO with 3x1C-2.5 sq. mm PVC cables drawn in 20 mm dia PVC conduits, including termination & labelling at both ends. (side by side or back to back will not be payable).	171	Nos	1,500	256,500	3,000	513,000	2,300	393,300.00

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CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,									
COMPARATIVE STATEMENT - PLUMBING WORKS									
S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	
g)	Wiring for Industrial socket outlet from UPS DB to outlet with 5x1C-10.0 sqmm PVC cables drawn in 32 mm dia PVC conduit, including termination & labelling at both ends.	32	Nos	7,000	224,000	10,000	320,000	2,100	67,200.00
h)	Wiring for 15A socket outlet from UPS DB to outlet with 3x1C-4.0 sqmm PVC cables drawn in 32 mm dia PVC conduit, including termination & labelling at both ends.	15	Nos	4,000	60,000	4,000	60,000	6,300	94,500.00
i)	Wiring for 5A socket outlet from UPS DB to outlet with 3x1C-2.5 sqmm PVC cables drawn in 32 mm dia PVC conduit, including termination & labelling at both ends.	58	Nos	3,500	203,000	3,000	174,000	3,600	208,800.00
1.2	Supply & Installation of following Switch Socket Outlets (SSO) on already installed boxes.								
a)	5 Amp 3 Pin SSO	214	Nos	600	128,400	400	85,600	700	149,800.00
b)	15 Amp 3Pin SSO	77	Nos	900	69,300	500	38,500	910	70,070.00
c)	Industrial Plug / Socket Outlet 63A 5pin. Make: Garo / Clipsal	4	Nos	2,800	11,200	1,000	4,000	11,000	44,000.00
d)	32 Amp triple pole switch Make: MK / Clipsal	4	Nos	2,500	10,000	1,500	6,000	5,500	22,000.00
1.3	Providing & fixing of following technology / floor boxes made of 1.5 mm sheet steel, power coated with earth terminal.								
a)	1.5 mm, powder coated MS back box with earthing terminal.	291	Nos	300	87,300	200	58,200	4,500	1,309,500.00
b)	Multi Boxes including Data/Voice And power Plug	40	Nos	1,500	60,000	250	10,000	2,200	68,000.00
b)	Multi Floor Boxes including Data/Voice And power Plug	6	Nos	2,500	15,000	250	1,500	4,500	27,000.00
Sub Total of Wiring & Accessories Rs.					2,937,300.00		3,257,800.00		4,832,120.00



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CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,									
COMPARATIVE STATEMENT - PLUMBING WORKS									
S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
2	Light & Fan Fixtures								
2.1	Supply & Installation of following light fixtures complete with lamps, starters, holders, electronic ballast etc including hangers, supports & all mounting / fixing accessories, complete in all respect & as per consultants approval.								
a)	Down Light Ceiling Mounted EUROPA LED (Philips)	75	Nos	3,500	262,500	1,000	75,000	2,300	172,500.00
b)	Ceiling mounted fan 56" dia including suitable fan rod & 1.5 mm sq. flexible cable as per requirement with 5 / 8 inch MS fan hook + dimer.	5	Nos	4,500	22,500	4,500	22,500	4,850	24,250.00
c)	Wall Bracket fan 12" dia	86	Nos	3,800	326,800	4,000	344,000	4,100	352,600.00
d)	Exhaust fan 8" dia Plastic Body	9	Nos	2,000	18,000	2,000	18,000	3,950	35,550.00
e)	Ceiling Light water proof model (Pacific) philips	12	Nos	4,500	54,000	3,000	36,000	22,000	264,000.00
f)	Ceiling Light model philips 18 w LED Core line Slim	416	Nos	2,800	1,164,800	900	374,400	2,150	894,400.00
g)	Mirror lights LED 34034/14/86	12	Nos	3,200	38,400	1,500	18,000	1,200	14,400.00
h)	Ceiling Light panel Light 2' x 2' TILE SLIM 40W	39	Nos	9,500	370,500	2,000	78,000	7,500	292,500.00
Sub Total of Light & Fan Fixtures Rs.						2,257,500.00		965,900.00	2,050,200.00
3	Race ways								
3.1	Supply & Installation of following sizes of conduits with all accessories, clipped to the surface or concealed in building fabric or to be laid in floor including cutting /excavation & back filling, complete in all respect.								
a)	PVC pipe 25 mm dia	150	Mtr	120	18,000	75	11,250	60	9,000.00
b)	PVC pipe 38 mm dia	110	Mtr	120	13,200	150	16,500	95	10,450.00
c)	PVC pipe 50 mm dia	80	Mtr	140	11,200	300	24,000	120	9,600.00
Sub Total of Race ways Rs.						42,400.00		51,750.00	29,050.00



CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,									
COMPARATIVE STATEMENT - PLUMBING WORKS									
S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	
4)	L.V. Switchgear								
4.1	Supply, installation, testing & commissioning of following factory assembled, pre-wired panel / distribution boards, concealed in wall or surface mounted or floor standing, 1.5/2.0 mm MS sheet steel fabricated, 120 microns powder coated, suitable for 500 volts, 3phase, 4wires, 50Hz, incorporate following components and configuration, complete with all mounting & connecting accessories as per drawings.								
a)	MLTP	1	No	200,000	200,000	300,000	300,000	725,000	725,000.00
b)	MLTP-E	1	No	140,000	140,000	150,000	150,000	375,000	375,000.00
c)	MDB 1	1	No	180,000	180,000	200,000	200,000	550,000	550,000.00
d)	MDB - E	1	No	200,000	200,000	100,000	100,000	110,000	110,000.00
e)	DISTRIBUTION BOARD UPS	2	No	70,000	140,000	50,000	100,000	158,000	316,000.00
f)	DISTRIBUTION BOARD LIGHT	2	No	80,000	160,000	100,000	200,000	450,000	900,000.00
g)	DISTRIBUTION BOARD "POWER"	4	No	90,000	360,000	100,000	400,000	550,000	2,200,000.00
h)	DISTRIBUTION BOARD " A/C "	4	No	60,000	240,000	100,000	400,000	110,000	440,000.00
i)	DISTRIBUTION BOARD " IIR "	1	No	50,000	50,000	100,000	100,000	75,000	75,000.00
	Sub Total of L.V. Switchgear Rs.				1,670,000.00		1,950,000.00		5,691,000.00
5	Main / Sub-main Feeders								
5.1	Supply, installation & termination at both ends of following main/sub-main cables in already installed Pipes complete as per site requirements Pakistan Cable / Fast Cable								
a)	1x120 mm sq 4core PVC/PVC Cable+1x16mm sq 1 core PVC Cable.	90	Mtr	4,000	360,000	4,000	360,000	6,400	576,000.00
b)	1x50 mm sq 4core PVC/PVC Cable+1x35mm sq 1 core PVC Cable.	120	Mtr	4,500	540,000	2,000	240,000	4,500	540,000.00
c)	1x35 mm sq 4core PVC/PVC Cable+1x35mm sq 1 core PVC Cable.	18	Mtr	4,500	81,000	1,500	27,000	2,800	50,400.00
d)	1x35 mm sq 4core PVC/PVC Cable+1x35mm sq 1 core PVC Cable.	18	Mtr	4,500	81,000	1,000	18,000	2,700	48,600.00
e)	1x16 mm sq 4core PVC/PVC Cable+ 1 x 10mm sq 1 core PVC Cable.	18	Mtr	3,800	68,400	700	12,600	1,850	33,300.00
	Sub Total of Main / Sub-main Feeder Rs.				1,130,400.00		657,600.00		1,248,300.00



CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,									
COMPARATIVE STATEMENT - PLUMBING WORKS									
S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	M/s. Ammar Enterprises
6	Voice System								
6.1	Supply, pulling & fluke testing of Voice cables in PVC Pipe, including labeling at both ends as per drawings. Make: Clipsal / Systimax.								
a)	Cat-5E UTP Cable in 20/25 mm dia PVC Pipe	480	Mtr	140	67,200	100	48,000	70	33,600.00
6.2	Supply, installation & termination of face plates comprising as follows. Make: Clipsal / Systimax.								
a)	1No RJ-11 socket outlet	28	Nos	400	11,200	300	8,400	900	25,200.00
6.3	Supply, Installation & termination of 24 port RJ-45 Cat-5E UTP Patch Panel complete with all accessories. Make: Clipsal / Systimax.	3	Nos	45,000	135,000	3,000	9,000	10,500	31,500.00
a)	1 meter long	28	Nos	350	9,800	350	9,800	390	10,920.00
b)	3 meter long	3	Nos	425	1,275	500	1,500	950	2,850.00
Sub Total of Data & Voice System Rs.						224,475.00		76,700.00	104,070.00
7	Networking								
7.1	Supplying, Termination, Installing and deploying, CAT-6 wires as for all nodes mentioned in drawing with end to end flak testing of deployed internet cable in PVC pipes, including, labelling and tagging at both ends, proper harnessed and structured cabling system, including fixing them in communication racks, with layers-3 Gigabit managerable switches with SFP Modules as Duplex SFP ports /media converters for Fiber uplinks with Cable managers patch panels to accommodate each and every node, with all accessories complete in respect as needed or as required, make 3-M /Panaduit / Schneider.	222	Nos	4,000	888,000	1,500	333,000	3,000	666,000.00
7.2	Supply, installation fixing and termination of single gang network Faceplates with I/O'S fixed in it for RJ 45 CAT-6 UTP wire, with all accessories complete in all respect as needed or as required, make 3-M /Panaduit / Schneider.	222	Nos	500	111,000	300	66,600	975	216,450.00

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COMPARATIVE STATEMENT - PLUMBING WORKS									
S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	M/s. Ammar Enterprises
7.3	Supplying, providing and deploying of network I/O's UPS, CAT-6 RJ - 45 as connecting port with all accessories complete in respect as needed or as required make 3-M /Panaduit / Schneider.	222	Nos	3,500	777,000	650	144,300	975	216,450.00
7.4	Supplying, Termination, Installing and deploying of Ethernet Patch Panels, cable managers and cable organizers for the same deployed Ethernet CAT-6 data wires nad nodes as RJ-45 connecting ports with all accessories complete in all respects as needed or as required, make 3-M /Panaduit / Schneider.	3	Nos	65,000	195,000	3,000	9,000	8,500	25,500.00
7.5	Supplying, providing and installing communication Rack 18 u with rotatable tires, sliding trays No.2 and fixed trays No-3 with 3M/ Panduit front cable organizers and with 12 sockets	3	Nos	15,000	45,000	50,000	150,000	20,000	60,000.00
7.6	Supply of 1 meter long CAT-6 UTP RJ-45 To RJ data wire Make 3-M /Panduit / Schneider.	222	Nos	400	88,800	500	111,000	450	99,900.00
7.7	Supply of 3 meter long CAT-6 UTP RJ-45 To RJ data wire Make 3-M /Panduit / Schneider.	222	Nos	500	111,000	600	133,200	1,100	244,200.00
7.8	Supplying providing Installation and configuring 24 Port GIGA ABIT CISCO, Layer 3 Manageable Switch with 2 Fiber SFP duplex ports with all ports with all Racks mounted accessories with all required accessories complete in all respect as needed or as required.	2	Nos	150,000	300,000	60,000	120,000	375,000	750,000.00
7.9	Supplying providing Installation and configuring 24 Port GIGA ABIT CISCO, Layer 3 Manageable PoE Switch with 2 Fiber SFP duplex ports with all ports with all Racks mounted accessories with all required accessories complete in all respect as needed or as required.	2	Nos	70,000	140,000	100,000	200,000	275,000	550,000.00
7.10	Supplying providing Installation and configuring 24 Port GIGA ABIT CISCO, Layer 3 Manageable Switch with 2 SFP ports with all Racks mounted accessories with all required accessories complete in all respect as needed or as required.	7	Nos	50,000	350,000	60,000	420,000	180,000	1,260,000.00
7.11	Providing of Fiber Patch Cords 3 Meter long SC or as required	8	Nos	3,000	24,000	500	4,000	425	3,400.00
7.12	Providing of Fiber Patch Cords 3 Meter long LC, to LC or as required	8	Nos	3,000	24,000	500	4,000	475	3,800.00
Total Networking Cost							3,053,800.00	1,695,100.00	4,095,700.00

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CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,									
COMPARATIVE STATEMENT - PLUMBING WORKS									
S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	
8	Fire Alarm System								
8.1	Wiring with 2 X 1.5 sqmm fire resistant cables for Conventional Fire Alarm system in 20mm dia PVC conduit clipped to be surface or concealed in building fabric, including labelling at both ends, complete as per drawing.	84	Nos	1,200	100,800	1,500	126,000	1,250	105,000.00
8.2	Supply, installation & testing of Conventional Fire Alarm Control Panel (8 zones) including back-up battery and all accessories, required to complete the job.	1	No	75,000	75,000	10,000	10,000	72,000	72,000.00
8.3	Supply, installation & testing of Fire Alarm system devices / components with MS back boxes.								
a)	Smoke Detector.	84	Nos	4,000	336,000	4,000	336,000	5,950	499,800.00
b)	Heat Detector.	2	Nos	4,000	8,000	4,000	8,000	3,500	7,000.00
c)	Manual Call Point.	6	Nos	2,000	12,000	6,000	36,000	3,950	23,700.00
d)	Fire Alarm Bell.	6	Nos	3,000	18,000	6,000	36,000	6,400	38,400.00
e)	End of line resistance.	6	Nos	100	600	3,000	18,000	5,000	30,000.00
f)	Fire Alarm Hooters	3	Nos			5,000	15,000	15,000	45,000.00
	Sub Total of Fire Alarm System Rs.				550,400.00		585,000.00		820,900.00
9	MULTIMEDIA SYSTEM								
9.1	Supply, installation, Testing and commissioning of Professional LED Multipurpose (Make Panasonic / Sony / Infocus USA)	1	Nos	300,000	300,000	15,000	15,000	210,000	210,000.00
9.2	Supply, installation, Testing and commissioning of Professional Screen 6'x6', HD format. (Make Panasonic / Sony & Screen USA)	2	Nos	60,000	120,000	35,000	70,000	15,000	30,000.00
9.3	Supply, installation, Testing and commissioning of VGA Cabling, automation and control cabling, audio cabling for the localized audio.	2	Nos	120,000	240,000	5,000	10,000	55,000	110,000.00
	Total Multimedia Cost				660,000.00		95,000.00		350,000.00







CONSTRUCTION OF GROUND AND FIRST FLOOR LABORATORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,									
COMPARATIVE STATEMENT - ELECTRICAL WORKS									
S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	
10	Close Circuit TV System.								
10.1	Supply & Pulling of following CCTV in 20mm dia PVC Pipe including labelling at both ends.								
a)	3MP IP Network IR Camera	24	Nos	6,000	144,000	15,000	360,000	19,800	475,200.00
b)	NVR 24 Channel support upto 4 TB HDD X 2	1	Nos	120,000	120,000	50,000	50,000	8,200	8,200.00
c)	8 Port GB POE Network Switch	4	Nos	3,000	12,000	22,500	90,000	3,500	14,000.00
d)	HDD 4 TB SATA Surveillance	2	Nos	25,000	50,000	25,000	50,000	3,000	6,000.00
e)	CAT-6 Data Cable for Camera Installation 3M or equivalent from NVR to Camera	24	Nos	4,500	108,000	4,000	96,000	6,500	156,000.00
f)	2 Wall mount rack	4	Nos	5,000	20,000	10,000	40,000	8,000	32,000.00
g)	LED Screen 24" (Panasonic / Sony)	2	Nos	55,000	110,000	22,000	44,000	3,000	6,000.00
	Sub Total of Close Circuit TV System Rs.				564,000.00		730,000.00		697,400.00
11	Sound System								
11.1	Wiring of Sound system in 20mm dia PVC conduit clipped to be surface or concealed in building fabric, complete as per drawing.								
a)	2c- 1.5 sqmm flexible cables.	8	Nos	2,000	16,000	2,500	20,000	3,100	24,800.00
11.2	Supply, installation & testing of Wall/Ceiling Mounted Speakers (TOA) with all accessories, required to complete the job.	8	No	4,000	32,000	10,000	80,000	5,900	47,200.00
11.3	Supply, installation & testing of Floor/Table stand speech microphone (TOA) with all accessories, required to complete the job.	1	No	5,000	5,000	25,000	25,000	6,000	6,000.00
11.4	Supply, installation & testing of cord less microphone (TOA) with all accessories, required to complete the job.	1	No	3,000	3,000	50,000	50,000	8,000	8,000.00
11.5	Supply, installation & testing of Power amplifier 60 W (TOA) with all accessories, required to complete the job.	1	No	25,000	25,000	30,000	30,000	21,000	21,000.00
	Sub Total of Sound System Rs.				81,000.00		205,000.00		107,000.00

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CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,									
COMPARATIVE STATEMENT - PLUMBING WORKS									
S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
12	Split Type Air-Conditioning								
12.1	Supply & Installation of following split type A/C units. Make: General / Mitsubshi.								
a)	1.0 tonne Wall mounted type.	2	Nos	75,000	150,000	65,000	130,000	60,000	120,000.00
b)	1.5 tonne Wall mounted type.	42	Nos	85,000	3,570,000	70,000	2,940,000	80,000	3,360,000.00
12.2	Supply, installation & testing of refrigerant piping (5/8" +3/8") with rubber foam installation, protected with tape. Control wiring in 20mm dia PVC pipe, complete in all respect. Make: (1). Refrigerant pipe: Muller USA. (2). Foam installation: Gulf-o-flex / Aero flex. (3). Control cable: Pakistan cable ltd / New age cable ltd. (4). PVC pipe & accessories: Jeddah / Galco.	400	Mtr	1,700	680,000	700	280,000	1,200	480,000.00
12.3	Supply & installation of UPVC pipe with all accessories including cutting of wall / floor etc. Make: AGM / Nepro.								
a)	20 mm dia.	500	Mtr	100	50,000	60	30,000	100	50,000.00
12.4	Supply & installation of frame / platform for A/C compressor made with 2"x1/4" MS angle iron including 2 coats of anti rust paint & finally black enamel paint. Anti vibration pads to be fixed on exterior wall, complete in all respect.	44	Nos	2,500	110,000	1,000	44,000	50,000	2,200,000.00
Sub Total of Split Type Air-Conditioning Rs.					4,560,000		3,424,000		6,210,000
13	Cable TV System.								
13.1	Supply, pulling & testing of following Cable TV wiring in 20mm dia PVC Pipe including labeling at both ends. Make WISI / Pakistan Cables LTD/Orange/3M.								
a)	Co-axil cable double shilded RG-6 B/U	4	Nos	3500	14,000	3,000	12,000	4,000	16,000.00
b)	RG-6 Sockets outlet on 1.5 mm powder coated MS back box.	4	Nos	500	2,000	500	2,000	775	3,100.00
Sub Total Cable TV System					16,000.00		14,000.00		19,100.00



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CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,									
COMPARATIVE STATEMENT - PLUMBING WORKS									
S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	M/s. Ammar Enterprises
14	Access Control System								
14.1	Supply & Pulling of access control wiring cat-6 UTP cable in 20mm dia PVC Pipe.	400	Mtr	150	60,000	100	40,000	85	34,000.00
14.2	Supply, Installation, Testing, Commissioning, Training & Programming of following Access Control System.								
a)	Network Proximity Access Control Panel.	39	Nos	20,000	780,000	7,000	273,000	9,500	370,500.00
b)	Push button.	39	Nos	3,000	117,000	1,000	39,000	8,600	335,400.00
c)	Converter	1	Nos	10,000	10,000	60,000	60,000	25,000	25,000.00
d)	Electromagnetic Lock.	39	Nos	10,000	390,000	5,000	195,000	6,900	269,100.00
e)	PVC Card, Proximity - HID 125 KHZ, Graphics quality, printable PVC Card for use with HID 125 KHZ readers.	3	Nos	1,500	4,500	1,000	3,000	70,000	210,000.00
f)	Power Supply with Battery back-up panel.	2	Nos	10,000	20,000	20,000	40,000	45,000	90,000.00
Sub Total of Access Control System Rs.					1,381,500.00		650,000.00		1,334,000.00
15	Earthing System								
a	Providing & fixing of earthing set with 2"x2"x1/4" copper plate buried in the ground at a depth of 12 feet or less if water comes out from the ground level (with salt and charcoal, or earthing chemical powder) etc making the pit 12 feet deep by excavation of all type of soil (except soft or hard rock) i/c fixing of 8 SWG copper wire in 1/2" G.I conduit with earth connecting point with all necessary accessories complete in all respect as required.	2	Job	40,000	80,000	100,000	200,000	225,000	450,000.00
Total Cost of Earthing System					80,000.00		200,000.00		450,000.00

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INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES-ICCBS UNIVERSITY OF KARACHI

COMPARATIVE STATEMENT - PLUMBING WORKS SUMMARY






S#	DESCRIPTION	CURRENCY	Engineers Estimate	M/s. Wakeel Enterprises	M/s. Ammar Enterprises
1	COLD/HOT WATER PIPING:	Rs.	958,400	848,200	643,990
2	SOIL SANITARY WASTE AND VENT & RW PIPES:	Rs.	1,617,600	2,217,000	1,540,500
3	PLUMBING FIXTURES:	Rs.	627,700	891,500	673,400
4	NATURAL GAS	Rs.	147,800	108,800	74,000
5	FIRE PROTECTION SPECIALTIES:	Rs.	1,267,700	2,024,500	1,802,050
6	OVER HEAD FIBER TANK	Rs.	246,000	590,000	585,000
7	Water Transfer Pump	Rs.	300,000	60,000	200,000
TOTAL AMOUNT			5,165,200	6,740,000	5,518,940



CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,
INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES-ICCBS UNIVERSITY OF KARACHI

COMPARATIVE STATEMENT - PLUMBING WORKS

S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
	PLUMBING WORKS								
	All items under this head to be carried out as per specifications, Drawings and relevant BS/ASTM Standards to the entire satisfaction of the Engineer.								
	WATER SUPPLY:								
1	COLD/HOT WATER PIPING:								
a	Supply, installation Testing and Commissioning of PPR PN - 20 Cold/Hot water pipes as per DIN 8077-8078 with molded fittings PN - 25 as per DIN 16962, including pipe supports as indicated on the drawing, as per specifications and Engineers approval.								
(i)	20mm dia.	Rft	1880	210.00	394,800.00	140.00	263,200.00	85.00	159,800.00
(ii)	25mm dia.	Rft	580	240.00	139,200.00	200.00	116,000.00	98.00	56,840.00
(iii)	32mm dia.	Rft	20	270.00	5,400.00	450.00	9,000.00	120.00	2,400.00
(iv)	38mm dia.	Rft	270	290.00	78,300.00	350.00	94,500.00	225.00	60,750.00
(v)	50mm dia.	Rft	120	310.00	37,200.00	600.00	72,000.00	330.00	39,600.00
(vi)	63mm dia.	Rft	60	315.00	18,900.00	600.00	36,000.00	365.00	21,900.00
2	ISOLATION/GATE VALVE:								
a	Providing and fixing of brass (PPR coated) ball valves as indicated on the drawing and as specified in specifications								
(i)	20mm dia.	Nos.	45	1,200.00	54,000.00	1,000.00	45,000.00	1,500.00	67,500.00
(ii)	25mm dia.	Nos.	4	1,600.00	6,400.00	2,500.00	10,000.00	1,650.00	6,600.00
(iii)	32mm dia.	Nos.	1	1,800.00	1,800.00	2,500.00	2,500.00	1,800.00	1,800.00
(iv)	38mm dia.	Nos.	4	2,400.00	9,600.00	2,500.00	10,000.00	2,000.00	8,000.00
(v)	50mm dia.	Nos.	4	3,200.00	12,800.00	10,000.00	40,000.00	2,200.00	8,800.00
3	Water Geyser								
	Supply and installation of Gas fired hot water geyser with below mentioned capacity including, 2 nos brass ball valves for piping, accessories, etc., complete all in accordance with the drawing and specifications.								
a)	30 Gallons capacity	Nos	6	30,000.00	180,000.00	20,000.00	120,000.00	30,000.00	180,000.00
4	2 STAGE UV FILTERS								
	Supply and installation of Two stage UV filter of minimum 0.8 GPM flow for Kitchen Pantry with valves, piping, accessories, etc., as indicated on the drawing, as per specifications and Engineers approval.	Nos	2	10,000.00	20,000.00	15,000.00	30,000.00	15,000.00	30,000.00
	Sub Total for Water Supply				958,400.00		848,200.00		643,990.00

CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,
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COMPARATIVE STATEMENT - PLUMBING WORKS

S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
	SOIL SANITARY WASTE AND VENT & RW PIPES:								
5	SOIL, WASTE & VENT SYSTEM:								
a	Providing, fixing, Testing and commissioning of uPVC pipes Class 'B' Pipes and fittings as per BS 4660 for above ground installations for Soil, Waste, Vent & R/w pipes including cleanout plug, clamps, hanger collars, supports, specials (bend, tees, Y-tee etc.) as indicated on the drawing, as per specifications and Engineers approval.								
(i)	50mm dia.	Mtr.	250	700.00	175,000.00	800.00	200,000.00	510.00	127,500.00
(ii)	75mm dia.	Mtr.	190	900.00	171,000.00	1,300.00	247,000.00	850.00	161,500.00
(iii)	100mm dia.	Mtr.	230	1,200.00	276,000.00	1,500.00	345,000.00	1,150.00	264,500.00
b	Providing, fixing, Testing and commissioning of uPVC pipes and fittings as per EN 1401 for below grade installations for Soil, Waste, Vent & R/w pipes including cleanout plug, clamps, hanger collars, supports, specials (bend, tees, Y-tee etc.) as indicated on the drawing, as per specifications and Engineers approval.								
(i)	150mm dia.	Mtr.	470	1,600.00	752,000.00	2,000.00	940,000.00	1,250.00	587,500.00
6	DRAINAGE SPECIALTIES								
a	Providing and fixing of PVC floor Trap/floor drain with multiple inlets and 75mm dia outlet with S S grating the approved design as per specifications	Nos	22	1,800	39,600.00	1,500	33,000.00	1,500	33,000.00
b	Providing and fixing UPVC cowl for vent pipe of the following dia including all accessories complete in all respects.								
(i)	75mm dia.	Nos.	12	300	3,600.00	500	6,000.00	300	3,600.00
(ii)	100mm dia.	Nos.	12	450	5,400.00	500	6,000.00	450	5,400.00
7	MANHOLES AND GULLY TRAPS / GREASE								
(i)	Sewer Manhole	Nos.	12	15,000.00	180,000.00	20,000.00	240,000.00	18,000.00	216,000.00
(ii)	750mm x 750mm Greece trap	Nos.	1	15,000.00	15,000.00	50,000.00	50,000.00	14,000.00	14,000.00
(iii)	300mm x 300mm Gully trap	Nos.	15	8,000.00	120,000.00	10,000.00	150,000.00	-8,500.00	127,500.00
Sub Total for Drainage System					-1,617,600.00		2,217,000.00		-1,540,500.00
8	PLUMBING FIXTURES								
a	Providing and fixing first quality European type water closet by Porta model HD 9N or Equivalent with 6 liters flush tank, build in S-Trap, Stop cock with flexible pipe as per drawings, specifications and Engineers Approval.	Nos.	13	12,000	156,000.00	15,000	195,000.00	12,500	162,500.00
b	Providing and fixing first quality Eastern water closet by Porta model HD-16 with 6 liters flush tank, S-Trap, stop cock and flexible pipe as per drawings, specifications and Engineers Approval.	Nos.	2	7,000	14,000.00	5,000	10,000.00	7,500	15,000.00
c	Providing and fixing wash basin by Porta with mixer by Sonex/Master, two (2) nos, Stop cocks with Flexible Connection, flexible drain pipe to floor drain as per drawings, specifications and engineers approval.	Nos.	36	10,000	360,000.00	15,000	540,000.00	10,500	378,000.00
d	Providing and fixing of kitchen Sink by Porta with waste trap, bib cock, Stop cocks, Flexible Connection as per drawings, specifications and engineers approval.	Nos.	1	10,000	10,000.00	10,000	10,000.00	10,500	10,500.00
e	Providing and fixing of Shower head by Sonex/Master with shower mixer and angle valves as per architectural fixture selection, complete in all respect.	Nos.	5	4,500	22,500.00	15,000	75,000.00	3,500	17,500.00
f	Providing and fixing bath toilet accessories as under by Sonex or Equivalent:								
(i)	Toilet Paper Holder	Nos.	12	1,000	12,000.00	500	6,000.00	1,200	14,400.00
(ii)	Soap Dish / Glass shelf	Nos.	4	800	3,200.00	500	2,000.00	1,500	6,000.00
(iii)	Mirror full size (Beveled edge type) as shown on the architectural drawing (5mm thick glass with backing of hardboard) posted with silicon with necessary clips as required. Complete in all respects.	Nos.	8	2,500	20,000.00	2,000	16,000.00	4,000	32,000.00
(iv)	Double Bib Cock with Hand Spray / Muslim shower	Nos.	15	2,000	30,000.00	2,500	37,500.00	2,500	37,500.00
Total of Plumbing Fixtures*					627,700.00		891,500.00		673,400.00



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CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,
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COMPARATIVE STATEMENT - PLUMBING WORKS

S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
9	NATURAL GAS GAS PIPING								
a	Providing and fixing of G.I (Medium) pipe and fitting by ILL, conforming to and approved by Local Gas Company standards to correct Lines, Levels and Grade, coating and wrapping including fixing and laying, fitting, valve, flanges, reducers, tees, sockets, bends, clamps, support, excavation works complete with testing and as per drawings, specifications and requirements of local gas company complete in all respects.								
(i)	12mm dia.	Rft	250	300.00	75,000.00	160.00	40,000.00	110.00	27,500.00
(ii)	20mm dia.	Rft	120	320.00	38,400.00	190.00	22,800.00	130.00	15,600.00
b)	Making service connection with existing Gas Company mains with necessary approval and directions by the Local Gas Company.	Nos.	1	20,000.00	20,000.00	20,000.00	20,000.00	25,000.00	25,000.00
c)	Providing and fixing brass ball valve with unsoldered copper ball conforming to API standards and approved by Local Gas Company.								
(i)	12mm dia.	Nos.	12	800.00	9,600.00	1,500.00	18,000.00	355.00	4,260.00
(ii)	20mm dia.	Nos.	4	1,200.00	4,800.00	2,000.00	8,000.00	410.00	1,640.00
Sub Total for Gas Works					147,800.00		108,800.00		74,000.00
10	FIRE PROTECTION SPECIALTIES: FIRE SUPPRESSION PIPING, VALVES AND ACESSORIES								
a)	Fire Hose cabinet made of M.S sheet by SRI or Equivalent front glass fitted with lock and handle red color power coating size along with following equipment.								
(i)	25mm diameter 1X30m high pressure rubber hose reel tested on 30 bar with PRV (Pressure Reducing valve)								
(ii)	Painted with electrostatic power paint oven baked to protect against rust and to give smooth finishing.	Nos.	4	35,000.00	140,000.00	10,000.00	40,000.00	65,000.00	260,000.00
(iii)	Adjustable plastic Nozzle for Jet spray	Nos.	4	5,000.00	20,000.00	4,000.00	16,000.00	2,500.00	10,000.00
(iv)	Brass gate valve 25mm.	Nos.	4	12,000.00	48,000.00	7,500.00	30,000.00	12,500.00	50,000.00
b)	Supply & installation of seamless galvanized 40 black steel pipe work including all fittings, supports, hangers, painting of fire protection system of following sizes.								
(iv)	75mm" dia.	Mtr	65	4,000.00	260,000.00	3,000.00	195,000.00	16,000.00	1,040,000.00
11	FIRE PUMP								
a	NFPA 20 compliance Vertical Turbine type Fire pump set comprising of 1 main electric pump (duty) + 1 Diesel Engine Pump (Stand by) + jockey pump + pressure vessel with Following Capacities Main pump duty = 500 GPM at 300 ft head (approx.) Duty pump duty = 500 GPM at 300 ft head (approx.) Jockey pump duty = 50 GPM at 310 ft head (approx.) Pressure vessel = 200 lit Fuel Tank = 100 lit (as recommended by manufacturer) Valves and fitting from Suction to Discharge header, Including all wiring, controls, etc., complete all in accordance with the drawings and specifications.	Nos.	1	500,000.00	500,000.00	1,500,000.00	1,500,000.00	15,000.00	15,000.00



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CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,
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COMPARATIVE STATEMENT - PLUMBING WORKS

S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
12	FIRE SPECIALITIES								
a)	6 Kg CO2 wall mounted fire extinguisher.	Nos.	15	7,500	112,500.00	7,500	112,500.00	8,250	123,750.00
b)	6 Kg Dry powder wall mounted fire extinguisher.	Nos.	15	5,500	82,500.00	4,000	60,000.00	7,500	112,500.00
c)	Flow switch for test pipe	Nos.	2			1,000	2,000.00	5,250	10,500.00
d)	Pressure Gauge	Nos.	1	1,700	1,700.00	1,500	1,500.00	3,000	3,000.00
e)	Automatic Air Vent to be installed on top of each Riser	Nos.	1	18,500	18,500.00	2,000	2,000.00	2,500	2,500.00
f)	Fire Blanket	Nos.	6	4,000	24,000.00	2,500	15,000.00	3,800	22,800.00
g)	Fire Shower / Fire eye Wash	Nos.	6	6,000	36,000.00	5,000	30,000.00	15,000	90,000.00
13	VALVES								
a)	Supply, installation, testing and commissioning of O.S and Y type gate valves of below mentioned diameter as indicated on the drawings, as per specifications and engineers Estimate								
(i)	32mm dia.	Nos.	1	1,500.00	1,500.00	1,000.00	1,000.00	5,000.00	5,000.00
(ii)	37mm dia.	Nos.	1	2,000.00	2,000.00	1,500.00	1,500.00	6,000.00	6,000.00
(iii)	75mm dia.	Nos.	6	3,500.00	21,000.00	3,000.00	18,000.00	8,500.00	51,000.00
Sub Total for Fire Protection System					1,267,700.00		-2,024,500.00		-1,802,050.00
14	WATER TRANSFER PUMP								
	Supply and installation of Pumps including control panel, wiring, valves, piping, accessories etc. from suction to discharge header, complete all in accordance with the drawing and specifications.								
a)	Water Transfer Pump set (duty) Pump Flow = 125 GPM @ 95 Ft head	Nos.	1	150,000	150,000.00	30,000	30,000.00	120,000	120,000.00
b)	Water Transfer Pump set (standby) Pump Flow = 125 GPM @ 95 Ft head	Nos.	1	150,000	150,000.00	30,000	30,000.00	80,000	80,000.00
Sub Total for Water Transfer Pump					300,000.00		60,000.00		200,000.00
15	OVER HEAD FIBER TANK								
a)	supply and fixing Water Tank made of fiber glass capacity 1800 liter. for fire hydrants	Nos.	2	33,000	66,000.00	100,000	200,000.00	45,000	90,000.00
b)	Supply and fixing Water Tank made of fiber glass capacity 1000 gallons.	Nos.	3	60,000	180,000.00	130,000	390,000.00	165,000	495,000.00
Sub Total for Over Head Fiber Tank					246,000.00		590,000.00		585,000.00

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CONSTRUCTION OF LABORATORY, VIROLOGY & UTILITY BUILDINGS FOR STRENGTHENING OF RESEARCH PROGRAMS
HEJ RESEARCH INSTITUTE OF CHEMISTRY
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UNIVERSITY OF KARACHI

SUMMARY OF VIROLOGY & UTILITY BUILDING- COMPARATIVE ESTIMATE

DESCRIPTION		ENGINEERS ESTIMATE	M/S WAKEEL ENTERPRISES	M/S AMMAR ENTERPRISES
Total (Part-A) Civil Work	Rs.	22,303,179.34	21,143,047.98	23,843,413.09
Total (Part-B) Electrical Work	Rs.	26,746,155.00	18,847,800.00	30,875,900.00
Total (Part-C) Plumbing Work	Rs.	2,426,300.00	3,393,300.00	2,716,290.00
Total (Part-A+B+C)	Rs.	51,475,634.34	43,384,147.98	57,435,603.09



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COMPARATIVE - CIVIL WORKS (SCHEDULE WORKS) - VIROLOGY & UTILITY BUILDING

S. No.	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT
1	EXCAVATION: Excavation for foundation trenches and drains in all kinds of soils (except gravelly and murum soil, wet silt, clay or mud conglomeration of gravel and boulders, soft, sandy, or dsintegrated sandy and hard rock) and back filling the excavated material in foundation, plinth or under floor including breaking clods, watering, consolidation by ramming in layers not exceeding 9 inches (229 mm) in depth to full compaction, dressing and disposal of surplus excavated stuff as directed, lead upto one chain (30.5 R.m) and lift upto 5 feet (1.52 m). Page # 17/1, 17/5.				
i)	Ordinary Soil	13500	%Cft	535.09	72,237.15
ii)	Hard Rock	13500	%Cft	2,410.85	325,464.75
2	Providing & Filling: Approved quality earth in depressions with in a radius of 5 miles (8km) breaking clouds,leveling,dressing,waterring and consolidating in 6 inches (152mm) layers etc. complete including all lifts. Page # 19, item# 14	16400	%Cft	2,314.41	379,563.24
3	Stone Soling Providing & Laying Soling Stone 6 to 9 inches (152 mm to 229 mm) size under floor including packing with spawly and chips and consolidating etc complete Page # 211, item # 1	3600	%Cft	3,251.34	117,048.24
4	C.C. FLOOR: Providing and laying 1:4:8 cement concrete bed under floors using graded stone ballest 2 inches (51 mm) and down gauge with leveling & ramming, watering and curing etc. complete. Page # 190/0	3000	%Cft	10,315.36	309,460.80
5	C.C.1:3:6 CAST IN SITU: Providing and laying in situ 1:3:6 cement concrete in walls more than 6 inch (152 mm) in thickness in superstruture using screened graded bajri 3/4 inch (19 mm) and down gauge including compating, curing, cost form work and its removal etc. Complete in ground ground floor	2000	%Cft	17,109.69	342,193.80
Item no.6; 7, 8, 9, 10 are deleted					
11	STEEL REINFORCEMENT: Providing and laying cold worked twisted ribbed steel reinforcement bars with minimum yield stress of 60,00 psi with and including the cost of straightening, cutting, bending, binding, wastage, complete in all kinds of RCC work. Page #159/68	50000	Kg	110.89	5,544,500.00
12	BLOCK MASONRY: Providing and laying 1:3:6 cement concrete solid machine made block masonry 4 to 6 inches (102 mm to 152 mm) thick using graded screened bajri 3/4 inch (19 mm) and down gaude set in cement sand mortar 1:6 including scaffolding raking out joints and curing etc. complete in frist floor superstructure. Page # 76/34, 81/92, 82/100				
i)	Ground Floor	5000	Cft%	15,752.92	787,646.00
13	MS DOOR FRAMES: Providing and fixing M.S. moulded steel door frames of 5.73" X 2-1/2" (146 mm X 63 mm) manufactures from mild steel sheet of 18 gauge (1.41 mm) conforming to B.S.S 1245 having a double rebate size 1-1/2" X 1/2" (38 mm X 12 mm) provision of 3 Nos. M.S. plate, section 1-1/2" X 1/4" (38 mm X 6 mm) (2 Nos. 6 inch long welded with frame at not less than 10 points and 1 Nos. 12 inch long welded with frame at not less than 20 points), with one locking box of same sheet (point welded inside the frame) 6 Nos. 6 inches long flat iron fixing lugs of 1-1/4" X 3/16" section, treated with special red oxide primer coat all around including cutting holes and filling the cavity with cement concrete 1:2:4 etc. in any floor at any height complete as directed by the Engineer-in-Charge. Page # 240/44	500	Rft	185.34	92,670.00



CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,
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COMPARATIVE STATEMENT - PLUMBING WORKS

S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
12	FIRE SPECIALITIES								
a)	6 Kg CO2 wall mounted fire extinguisher.	Nos.	15	7,500	112,500.00	7,500	112,500.00	8,250	123,750.00
b)	6 Kg Dry powder wall mounted fire extinguisher.	Nos.	15	5,500	82,500.00	4,000	60,000.00	7,500	112,500.00
c)	Flow switch for test pipe	Nos.	2			1,000	2,000.00	5,250	10,500.00
d)	Pressure Gauge	Nos.	1	1,700	1,700.00	1,500	1,500.00	3,000	3,000.00
e)	Automatic Air Vent to be installed on top of each Riser	Nos.	1	18,500	18,500.00	2,000	2,000.00	2,500	2,500.00
f)	Fire Blanket	Nos.	6	4,000	24,000.00	2,500	15,000.00	3,800	22,800.00
g)	Fire Shower / Fire eye Wash	Nos.	6	6,000	36,000.00	5,000	30,000.00	15,000	90,000.00
13	VALVES								
a)	Supply, installation, testing and commissioning of O.S and Y type gate valves of below mentioned diameter as indicated on the drawings, as per specifications and engineers Estimate								
(i)	32mm dia.	Nos.	1	1,500.00	1,500.00	1,000.00	1,000.00	5,000.00	5,000.00
(ii)	37mm dia.	Nos.	1	2,000.00	2,000.00	1,500.00	1,500.00	6,000.00	6,000.00
(iii)	75mm dia.	Nos.	6	3,500.00	21,000.00	3,000.00	18,000.00	8,500.00	51,000.00
Sub Total for Fire Protection System					1,267,700.00		2,024,500.00		1,802,050.00
14	WATER TRANSFER PUMP								
	Supply and installation of Pumps including control panel, wiring, valves, piping, accessories etc. from suction to discharge header, complete all in accordance with the drawing and specifications.								
a)	Water Transfer Pump set (duty) Pump Flow = 125 GPM @ 95 Ft head	Nos.	1	150,000	150,000.00	30,000	30,000.00	120,000	120,000.00
b)	Water Transfer Pump set (standby) Pump Flow = 125 GPM @ 95 Ft head	Nos.	1	150,000	150,000.00	30,000	30,000.00	80,000	80,000.00
Sub Total for Water Transfer Pump					300,000.00		60,000.00		200,000.00
15	OVER HEAD FIBER TANK								
a)	supply and fixing Water Tank made of fiber glass capacity 1800 liter. for fire hydranters	Nos.	2	33,000	66,000.00	100,000	200,000.00	45,000	90,000.00
b)	Supply and fixing Water Tank made of fiber glass capacity 1000 gallons	Nos.	3	60,000	180,000.00	130,000	390,000.00	165,000	495,000.00
Sub Total for Over Head Fiber Tank					246,000.00		590,000.00		585,000.00



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CONSTRUCTION OF LABORATORY, VIROLOGY & UTILITY BUILDINGS FOR STRENGTHENING OF RESEARCH PROGRAMS
HEJ RESEARCH INSTITUTE OF CHEMISTRY
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COMPARATIVE - CIVIL WORKS (SCHEDULE WORKS) - VIROLOGY & UTILITY BUILDING

S. No.	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT
14	FULLY VENEERED SHUTTERS: Providing and fixing 1-1/2" thick solid core deodar wood flushed veneered door shutters, with and including the cost of commercial plywood facing 3 mm thick (3 ply) on both faces, fixed over best quality deodar wood frame 2 inches wide around 6 inches wide lock rail and 2 nd class deodar wood solid core, including 1/4" thick best quality deodar wood lapping on all sides as per approved drawing, manufactured under power driven hydraulic press, including the cost of approved iron fitting but excluding the cost handles and locking arrangements. Page # 265/61-a	550	Sft	571.68	3,144.24
15	Porviding and fixing with brass screws Alpa knob set lock of approved design (No. 7000) Japan make, cutting wood to required shape and size with two operating keys as per direction of the engineer - in - charge. Page 303/76	18	Each	2,531.56	45,568.08
16	DOOR CLOSER: Providing and fixing with brass screws or specially supplied screws hydraulic door closer Rayobi or approved design and shape No. 72, Japan make, cutting wood etc to required shape and size as per direction of Engineer - in - Charge. Page # 303/70	18	Each	2,420.50	43,569.00
17	SPIRIT POLISHING: Applying French or spirit polishing, two coats of approved make on wood work at any height in any floor. Page # 336/89-90	1200	Sft%	3,193.92	38,327.04
18	PLAIN GLASS: Providing and fixing plain glass planes 5 mm thick to M.S. Box Pipe / Aluminum doors, windows and ventilator etc including the most cost of labor but excluding the cost of M.S square pipe beading, rubber packing and screw in any floor at any height. Page # 254/119	2200	Sft	88.91	195,602.00
19	ALUMINUM SLIDING WINDOW: Providing and fixing fully glazed bronz anodized aluminum slizing window as per british standard manufactured by lucky, Alcop, Krusdon, Pakistan cable and A.C.P. (fixing through their approved fabricators), Executive model section double or single glazed 101 mm x 37 mm and 1.6 mm thick including the cost of aluminum netting, fitting, with all accessories cutting hole etc and making good damages to wall etc. complete as required in any floor as per direction of engineer - in - charge but excluding the cost of glass panes. Page # 245/71	150	Sft	683.72	102,558.00
20	PLASTER (CEILING): 1/2" (13 mm) thick cement plaster 1:3 on ceiling, walls and columns etc.. in basement, plinth, first and ground floor including making edges, corns and curing etc, complete. Page # 320/3, 327/87	35000	Sft%	2,237.47	783,114.50
21	PLASTER (EXTERNAL): 3/4" thick cement plaster 1:6 on walls and columns etc. in basement, plinth, first and ground floor including edges, corners, and curing etc. complete Page # 320/10, 327/87	7000	Sft%	2,247.90	157,353.00
22	PLASTIC EMULSION PAINT: Painting with (ICI) Deluxe plastic emulsion paint VIP of approved shade two coats over and including the cost of one priming coat complete over plastered surface at any floor. Page # 334/162	29000	Sft%	2,742.08	795,203.20
23	VINYL DISTEMPER: Distempering with vinyl distemper (ICI) Deluxe Painted of approved make shade in two coats over and including the cost of one priming coat of lime wash including sand papering, dusting and filling the holes, crakes and inequalities, at any height in any floor. Page # 333/151	7000	Sft%	1,053.54	73,747.80



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COMPARATIVE - CIVIL WORKS (SCHEDULE WORKS) - VIROLOGY & UTILITY BUILDING

S. No.	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT
24	WEATHER SHIELD PAINT: Painting three coats with weather shield paint deluxe (ISI) make of approved shade on plaster surface external and including the cost of cleaning the surface, sand papering etc. complete at any height in any floor. (External) Page No. 334/172	2500	Sft%	1,406.88	35,172.00
25	IRON GRILL: Providing and fixing iron grills with required section of flat iron as per approved design including welding all sides of the section at the junction and fixing with sunk iron screws, painting two coats of red oxide paint etc. complete as required in any floor in masonry or concrete work. Page # 239/32	10	Cwt	7,634.08	76,340.80
26	IRON PAINTING: Painting iron work with synthetic enamel paint of approved makes and shade two coat over and including the cost of one priming coat complete at any height in any floor. Page No. 333/159 Second floor including stair tower.	4500	Sft%	2,776.62	124,947.90
27	ALUMINUM SHEET: Providing and fixing aluminum sheet 22 gauge (1.15 mm thick) on wooden surface with sunken aluminum screw of required size as per direction of the engineer - in - charge. Page # 357/130	200	Sft	225.13	45,026.00
28	WOOD WORK PAINTING: Painting wood work with synthetic enamel paint of approved make and shade two coats over and including the cost of one priming coats over at any height in any floor. Page # 333/160	1100	Sft%	2,585.22	28,437.42
29	RAIN WATER DOWN PIPE: Providing and fixing 3" (80 mm) dia polyvinyl chloride (PVC) down pipe with mild steel clamps, bolts and nuts fixed in cement concrete 1:2:4 etc. complete Page # 352/64	70	Rft	210.55	14,738.50
30	P.V.C SOCKET: Providing and fixing 3" (80 mm) dia polyvinyl chloride (PVC) socket for rain water down pipe. Page # 352/66	8	Each	159.56	1,276.48
31	P.V.C BEND: Providing and fixing 3" (80 mm) dia polyvinyl chloride (PVC) bend for any degree for rain water down pipe with clamps, bolts and nuts in cement concrete 1:2:4 etc. complete. Page # 353/68	4	Each	629.85	2,519.40
ENGINEERING ESTIMATE AMOUNT					10,537,429.34
<u>M/s. Wakeel Enterprises</u>			9% above on all items		948,368.64
			Total Amount		11,485,797.98
<u>M/s. Ammar Enterprises</u>			50% above on item 20 & 21		470,233.75
			Total Amount		11,007,663.09

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CONSTRUCTION OF LABORATORY, VIROLOGY & UTILITY BUILDINGS FOR STRENGTHENING OF RESEARCH PROGRAMS
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INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES-ICCBS
UNIVERSITY OF KARACHI

COMPARATIVE - CIVIL WORKS (NON-SCHEDULE WORKS) - VIROLOGY & UTILITY BUILDING

S. No.	DESCRIPTION	QTY	UNIT	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
1	CLEARING OF SITE: Cleaning the site for proper execution of work including layout of structure with making centre lines, etc.. Complete as per drawing, specifications and instruction of Engineer-in-Charge.	1	Job	15,000.00	15,000.00	10,000.00	10,000.00	100,000.00	100,000.00
2	BOTICINA MARBLE FLOOR: Providing and laying Boticina or approved quality marble floor using tile of size 12"x24" x 3/4 inch of approved quality laid over bed of C.C. 1:4 using cement and screened sand mix with larger grain size not exceeding 1", in approved pattern including filling of joints using white cement and pigment (if required) in match color of marble tiles including, grinding and chemical polish complete in all respect as per instructions by the Architect / Engineer. (1st Floor).	6050	Sft	195.00	1,179,750.00	180.00	1,089,000.00	220.00	1,331,000.00
3	BOTICINA MARBLE SKIRTING: Providing and laying Boticina or approved quality marble skirting using tile of size 24"x6" x 3/8 inch on walls wherever required or shown over drawing over 1/2" inch thick rough plaster of 1:6 cement sand mortar, including grinding, wax polishing, rounding corners, straightening of edges, levelling, curing and finishing etc. complete in all respect as per instructions by the Architect / Engineer. (1st Floor).	1700	Sft	200.00	340,000.00	200.00	340,000.00	150.00	255,000.00
4	ROOF SCREED: Providing and laying average 3" thick CC.1:2:4 screed using graded screened bajri 3/4" inch and down gauge laid in proper gradient and slope etc. complete including glass dividing strips and making 3" x 3" C.C gola at parapet and roof junction etc. complete with painting the surface with plastic bitumen No 3 or 4 @ of 15 lbs per %Sft blinded with sand @ 2 Cft Per %Sft complete in all respect as per instructions by the Architect/Engineer. (1st Floor)	5900	Sft	85.00	501,500.00	75.00	442,500.00	95.00	560,500.00
5	Epoxy Coating providing and coating 2mm epoxy, monolithic, nonabsorbent, skidproof, resistant to wear as per direction of Engineer incharge.	6050	Sft	320.00	1,936,000.00	9.00	54,450.00	380.00	2,299,000.00
6	False Ceilings providing and fixing monolithic suspended ceiling systemop Gypsum board with epoxy paint. The fiber reinforcement board shall have 12mm thickness with tapped edge for smooth joints treatment. The board size shall 8' X 4'	5000	Sft	225.00	1,125,000.00	180.00	900,000.00	360.00	1,800,000.00
7	Wall Facing P/L Envicrete or Equivalent wall facing tiles having minimum size (390 mm x 190mm x 90mm) (laid flat in courses) in cement mortar 1:3 cement painted in deep out grooves and in pattern as per direction of the engineer incharge including rubbing, curing etc. complete	3500	Sft	200.00	700,000.00	180.00	630,000.00	200.00	700,000.00
8	Stainless Steel Door: Providing/Fixing Alcop or Equivalent steel door, with vision panelled 300 x 900 mm. Complete as per approved drawing by the Consultant.	200	Sft	3,500.00	700,000.00	850.00	170,000.00	2,200.00	440,000.00



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UNIVERSITY OF KARACHI

COMPARATIVE - CIVIL WORKS (NON-SCHEDULE WORKS) - VIROLOGY & UTILITY BUILDING

S. No.	DESCRIPTION	QTY	UNIT	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises		
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	
9	MS STEEL LOUVER DOOR AND VENTILATOR: Providing and fixing farmed doors and gates prepared attachment of Covering through Gi Sheet Louvers (16 Gauge) including hinges, door fittings, fastening, tower bolts, aldrops and hanging including welding, complete and including applying one primer coat of red oxide and three coats of dulux (ICI) / Berger Enamel Paint of approved shade and colour complete as per drawings, specifications and instructions of Consultant (Shop drawings shall be provided for the approval of Consultant).	550	Sft	500.00	275,000.00	550.00	302,500.00	295.00	162,250.00	
10	R.C.C FOUNDATION: Providing and laying reinforced cement concrete using screened graded bajri 3/4 inch (19 mm) and down gauge having a minimum work cube crushing strength of lbs. Per sq Inch (15.52 N/mm ²) at 28 days with mix not leaner than in column footing of required shape including from work and its removal, compacting and curing etc. complete in foundation basement and plingth. Page # 135/1	5,500	Cft	300	1,650,000.00	389	2,139,500.00	284	1,562,000.00	
11	R.C.C PLINTH BEAMS: Providing laying reinforced cement concrete using screened graded bajri 3/4 inch (19 mm) and down gauge having a minimum works cube crushing strength of lbs. Per sq. inch (15.52 N/mm ²) at 28 days with mix not leaner than in plinth beams of required shape and design including from work and its removal, compacting and curing etc. but excluding the cost of reinforcement in foundation basement and plingth. Page # 136/8	2700	Cft	330	891,000.00	369	996,300.00	335	904,500.00	
12	R.C.C COLUMNS: Providing & laying reinforced cement concrete using crush graded boulders 3/4 inch and down gauge having a minimum works cube crushing strength of 3750 lbs. Per sq. inch and 28 days with mix leaner than 1:1 1/2: 3 in columns of square or rectangular shape of regular section including from its work or removal, compacting and curing etc. but excluding the cost of reinforcement in foundation basement and plingth. Page # 138/24, 156/136, 150/92	1300	Cft	360	468,000.00	369	479,700.00	380	494,000.00	
13	R.C.C BEAM & LINTELS: Providing and laying cement concrete using crush graded boulders 3/4 inch and down gauge having a minimum works cube crushing strength of 3000 lbs. Per sq. inch and 28 days with mix not leaner than 1:2:4 in straight beams lintels cantilever beams of required shape section including from its work or removal, compacting and curing etc. complete but excluding the cost of reinforcement. Page # 141/38, 156/136, 150/92	1200	Cft	360.00	432,000.00	369.00	442,800.00	450.00	540,000.00	
14	SLAB & PROJECTION: Providing and laying cement concrete using crush graded boulders 3/4 inch and down gauge having a minimum works cube crushing strength of 3000 lbs. Per sq. inch and 28 days with mix not leaner than 1:2:4 in ordinary slab 5 inch to 6 inches thick, including from its work or removal, compacting and curing etc. complete but excluding the cost of reinforcement. Page # 144/56, 156/136, 150/92									
i)	Ground Floor	4500	Cft	345	1,552,500.00	369	1,660,500.00	375	1,687,500.00	
TOTAL AMOUNT						11,765,750.00		9,657,250.00		12,835,750.00
PERCENTAGE ABOVE OR BELOW OF ENGINEERS ESTIMATE							17.92% BELOW			



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CONSTRUCTION OF GROUND AND FIRST FLOOR VIROLOGY AND UTILITY BUILDINGS
HEJ RESEARCH INSTITUTE OF CHEMISTRY, UNIVERSITY OF KARACHI
(M/s. Wakeel Enterprises).
(PLUMBING WORKS)

S#	DESCRIPTION	CURRENCY	Engineers Estimate	M/s. Wakeel Enterprises	M/s. Ammar Enterprises
1	COLD/HOT WATER PIPING:	Rs.	374,600	283,500	231,580
2	SOIL SANITARY WASTE AND VENT & RW PIPES:	Rs.	620,600	804,000	578,300 ✓
3	PLUMBING FIXTURES:	Rs.	120,000	180,000	126,000 ✓
4	NATURAL GAS	Rs.	141,400	96,800	71,160 ✓
5	FIRE PROTECTION SPECIALTIES:	Rs.	1,136,700	1,979,000	1,664,250 ✓
6	OVER HEAD FIBER TANK	Rs.	33,000	50,000	45,000 ✓
	Total Amount:		2,426,300	3,393,300	2,716,290

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CONSTRUCTION OF GROUND AND FIRST FLOOR VIROLOGY AND UTILITY BUILDINGS, HEJ RESEARCH INSTITUTE
OF CHEMISTRY, UNIVERSITY OF KARACHI (Non Schedule)

COMPARATIVE STATEMENT - PLUMBING WORKS

S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
	PLUMBING WORKS								
	All Items under this head to be carried out as per specifications, Drawings and relevant BSI/ASTM Standards to the entire satisfaction of the Engineer.								
	A WATER SUPPLY:								
1	COLD/HOT WATER PIPING:								
	Supply, installation Testing and Commissioning of PPR PN - 20 Cold/Hot water pipes as per DIN 8077-8078 with molded fittings PN - 25 as per DIN 16962, including pipe supports as indicated on the drawing, as per specifications and Engineers approval.								
(i)	20mm dia.	Rft	300	210.00	63,000.00	140.00	42,000.00	85.00	25,500.00
(ii)	25mm dia.	Rft	160	240.00	38,400.00	200.00	32,000.00	98.00	15,680.00
(iii)	32mm dia.	Rft	20	270.00	5,400.00	450.00	9,000.00	120.00	2,400.00
(iv)	38mm dia.	Rft	160	290.00	46,400.00	350.00	56,000.00	225.00	36,000.00
(v)	50mm dia.	Rft	40	310.00	12,400.00	600.00	24,000.00	330.00	13,200.00
2	ISOLATION/GATE VALVE:								
	Providing and fixing of brass (PPR coated) ball valves as indicated on the drawing and as specified in specifications								
(i)	20mm dia.	Nos.	8	1,200.00	9,600.00	1,000.00	8,000.00	1,500.00	12,000.00
(ii)	25mm dia.	Nos.	4	1,600.00	6,400.00	2,500.00	10,000.00	1,650.00	6,600.00
(iii)	32mm dia.	Nos.	1	1,800.00	1,800.00	2,500.00	2,500.00	1,800.00	1,800.00
(iv)	38mm dia.	Nos.	2	2,400.00	4,800.00	2,500.00	5,000.00	2,000.00	4,000.00
(v)	50mm dia.	Nos.	2	3,200.00	6,400.00	10,000.00	20,000.00	2,200.00	4,400.00
3	Water Geyser								
	Supply and installation of Gas fired hot water geyser with below mentioned capacity including, 2 nos brass ball valves for piping, accessories, etc., complete all in accordance with the drawing and specifications.								
(i)	30 Gallons capacity	Nos	2	30,000.00	60,000.00	20,000.00	40,000.00	30,000.00	60,000.00
4	2 STAGE UV FILTERS								
	Supply and installation of Two stage UV filter of minimum 0.8 GPM flow for Kitchen Pantry with valves, piping, accessories, etc., as indicated on the drawing, as per specifications and Engineers approval.	Nos	2	10,000.00	20,000.00	10,000.00	20,000.00	15,000.00	30,000.00
5	WATER TANK:								
	Connection from external network to RCC water tanks including fittings, float valves, vent pipes, accessories, valves, supports, warning pipes, low and high level float switches, etc. as per specifications	Job	1	100,000.00	100,000.00	15,000.00	15,000.00	20,000.00	20,000.00
	Sub Total for Water Supply				374,600.00		283,500.00		231,580.00

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CONSTRUCTION OF GROUND FLOOR VIROLOGY AND UTILITY BUILDINGS
HEJ RESEARCH INSTITUTE OF CHEMISTRY
INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES
ICCBS, UNIVERSITY OF KARACHI

COMPARATIVE STATEMENT - ELECTRICAL WORKS SUMMARY

S#	DESCRIPTION	CURRENCY	Engineers Estimate	M/s. Wakeel Enterprises	M/s. Ammar Enterprises
1	Wiring & Accessories	Rs.	1,290,400	✓ 1,452,600	2,126,670 ✓
2	Light & Fan Fixtures	Rs.	865,400	✓ 300,400	883,000 ✓
3	Race Ways	Rs.	22,100	✓ 28,500	15,200
4	L.V. Switchgear	Rs.	570,000	✓ 500,000	1,210,000 ✓
5	Main / Sub-Main Feeders	Rs.	14,395,400	✓ 13,269,600	22,987,700
6	Data & Voice System	Rs.	86,075	72,100	44,230
7	Networking	Rs.	8,494,180	1,990,800	1,817,600
8	Fire Alarm System	Rs.	267,100	330,400	439,100
9	Close Circuit TV System.	Rs.	267,000	454,400	480,100
10	Earthing System	Rs.	80,000	200,000	450,000
11	Access Control Room	Rs.	408,500	249,000	422,300
Total Amount:			26,746,155	18,847,800	30,875,900 ✓



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CONSTRUCTION OF GROUND FLOOR OF VIROLOGY & UTILITY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,
INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES-ICCBS UNIVERSITY OF KARACHI

COMPARATIVE STATEMENT - ELECTRICAL WORKS

S. No.	DESCRIPTION	QTY	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
					RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	
1	Wiring & Accessories									
1.1	Supply, installation & testing of following items, clipped to the surface or concealed in the building fabric, including all conduit & wiring accessories, as per drawings & instructions. Complete in all respect.									
a)	Wiring of light / fan point controlled by one switch with 3x1C-1.5 sq. mm PVC cables drawn in 20/25mm dia PVC conduits, including 1.5 mm, powder coated MS back box and gang switches. Clipsal / Orange cable Pakistan/fast/New Age Cable	46	112	Nos	1,800	201,600	2,000	224,000	2,100	235,200
b)	Wiring of light point to light point with 3x1C-1.5 sq.mm PVC cables drawn in 20/25mm dia PVC conduits.	14	25	Nos	1,200	30,000	1,000	25,000	1,150	28,750
c)	Wiring of light circuits from DB to switch board(s) with 3x1C-2.5 sq.mm PVC cables drawn in 20 mm dia PVC conduits, including termination & labelling at both ends.	1.8	15	Nos	2,800	42,000	3,000	45,000	4,400	66,000
d)	Wiring for power circuits from DB to 1st SSO Power Circuit with 3x1C-4 sqmm PVC cables in 20 mm dia PVC conduit, including termination & labelling at both ends.	5.2	97	Nos	3,800	368,600	4,000	388,000	5,500	533,500
e)	Wiring for A/C circuit from DB to A/C unit with 3x1C-6.0 sqmm PVC cables drawn in 25 mm dia PVC conduit, including termination & labelling at both ends.	6.8	25	Nos	4,500	112,500	6,000	150,000	7,500	187,500
f)	Wiring of SSO to SSO with 3x1C-2.5 sq. mm PVC cables drawn in 20 mm dia PVC conduits, including termination & labelling at both ends. (side by side or back to back will not be payable).	13.8	54	Nos	1,500	81,000	3,000	462,000	2,300	124,200
g)	Wiring for 15A socket outlet from UPS DB to outlet with 3x1C-4.0 sqmm PVC cables drawn in 32 mm dia PVC conduit, including termination & labelling at both ends.	0.8	15	Nos	4,000	60,000	10,000	150,000	6,300	94,500
h)	Wiring for 5A socket outlet from UPS DB to outlet with 3x1C-2.5 sqmm PVC cables drawn in 32 mm dia PVC conduit, including termination & labelling at both ends.	0.8	58	Nos	3,500	203,000	4,000	232,000	3,600	208,800
i)	Wiring for Industrial socket outlet from UPS DB to outlet with 5x1C-10.0 sqmm PVC cables drawn in 32 mm dia PVC conduit, including termination & labelling at both ends.	0.8	1	Nos	6,000	6,000	3,000	8,000	21,000	21,000
1.2	Supply & Installation of following Switch Socket Outlets (SSO) on already installed boxes.									
a)	5 Amp 3 Pin SSO.	9.5	54	Nos	600	32,400	400	21,600	700	37,800
b)	15 Amp 3Pin SSO.	2.4	12	Nos	900	10,800	500	6,000	910	10,920
c)	Industrial Plug / Socket Outlet 63A 5pin. Make: Gero / Clipsal	0.8	10	Nos	2,800	28,000	1,000	10,000	11,000	110,000
d)	32 Amp triple pole switch Make: MK / Clipsal	0.6	10	Nos	2,500	25,000	1,500	15,000	5,500	55,000
1.3	Providing & fixing of following technology / floor boxes made of 1.5 mm sheet steel, power coated with earth terminal.									
a)	1.5 mm, powder coated MS back box with earthing terminal.	13.6	65	Nos	300	19,500	200	13,000	4,500	292,500
b)	Multi Boxes including Voice And power Plug	0.8	10	Nos	1,500	15,000	250	2,500	2,200	22,000
c)	Multi Floor Boxes including Data/Voice And power Plug	0.8	22	Nos	2,500	55,000	250	5,500	4,500	89,000
Sub Total of Wiring & Accessories Rs.						1,290,400		1,452,600		2,126,670

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CONSTRUCTION OF GROUND FLOOR OF VIROLOGY & UTILITY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,
INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES-ICCBS UNIVERSITY OF KARACHI

COMPARATIVE STATEMENT - ELECTRICAL WORKS

S. No.	DESCRIPTION	QTY	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
					RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	
2	Light & Fan Fixtures									
2.1	Supply & installation of following light fixtures complete with lamps, starters, holders, electronic ballast etc including hangers, supports & all mounting / fixing accessories, complete in all respect & as per consultants approval.									
a)	Down Light Ceiling Mounted EUROPA LED (Philips)	18	18	Nos	3,500	63,000	1,000	18,000	2,300	41,400
b)	Ceiling mounted fan 56" dia including suitable fan rod & 1.5 mm sq. flexible cable as per requirement with 5 / 8 inch MS fan hook + dimer.	2.6	8	Nos	4,500	36,000	4,500	36,000	4,850	38,800
c)	Wall Bracket fan 12" dia	2.3	12	Nos	3,800	45,600	4,000	48,000	4,100	49,200
d)	Tms Ceiling LED model no 011 Philips	1.2	16	Nos	2,000	32,000	2,000	32,000	3,950	63,200
e)	Ceiling Light water proof model (Pacific) philips	4	8	Nos	4,500	36,000	3,000	24,000	22,000	176,000
f)	Ceiling Light model philips 18 w LED Core line Slim	0.8	16	Nos	2,800	44,800	900	14,400	2,150	34,400
g)	Ceiling Light panel Light 2' x 2' TILE SLIM 40W		64	Nos	9,500	608,000	2,000	128,000	7,500	480,000
	Sub Total of Light & Fan Fixtures Rs.					865,400		300,400		883,000
3	Race ways									
3.1	Supply & installation of following sizes of conduits with all accessories, clipped to the surface or concealed in building fabric or to be laid in floor including cutting /excavation & back filling, complete in all respect.									
a)	PVC pipe 25 mm dia	120	80	Mtr	120	9,600	75	6,000	60	4,800
b)	PVC pipe 38 mm dia	10	40	Mtr	120	4,800	150	6,000	95	3,800
c)	PVC pipe 50 mm dia	35	55	Mtr	140	7,700	300	16,500	120	6,600
	Sub Total of Race ways Rs.					22,100		28,500		15,200
4)	L.V. Switchgear									
4.1	Supply, installation, testing & commissioning of following factory assembled, pre-wired panel / distribution boards, concealed in wall or surface mounted or floor standing, 1.5/2.0 mm MS sheet steel fabricated, 120 microns powder coated, suitable for 500 volts, 3phase, 4wires, 50Hz, incorporate following components and configuration, complete with all mounting & connecting accessories as per drawings.									
a)	MDB		1	No	170,000	170,000	100,000	100,000	550,000	550,000
b)	DB Utility Building		1	No			100,000	100,000	225,000	225,000
c)	UPS DB		1	No	180,000	180,000	100,000	100,000	210,000	210,000
d)	POWER DB		1	No	120,000	120,000	100,000	100,000	175,000	175,000
e)	LIGHT DB		1	No	100,000	100,000	100,000	100,000	50,000	50,000
	Sub Total of L.V. Switchgear Rs.					570,000		500,000		1,210,000

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CONSTRUCTION OF GROUND FLOOR OF VIROLOGY & UTILITY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,
INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES-ICCBS UNIVERSITY OF KARACHI

COMPARATIVE STATEMENT - ELECTRICAL WORKS

S. No.	DESCRIPTION	QTY	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
					RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	
5	Main / Sub-main Feeders									
5.1	Supply, installation & termination at both ends of following main/sub-main cables in already installed Pipes complete as per site requirements Pakistan Cable / Fast Cable									
a)	1x120 mm sq 4core PVC/PVC Cable+1x16mm sq 1 core PVC Cable.	6	70	Mtr	4,000	280,000	4,000	280,000	6,400	448,000
b)	1x95 mm sq 4core PVC/PVC Cable+1x35mm sq 1 core PVC Cable.	5	70	Mtr	4,500	315,000	3,000	210,000	5,800	406,000
c)	1x50 mm sq 4core PVC/PVC Cable+1x35mm sq 1 core PVC Cable.	5	70	Mtr	4,500	315,000	2,000	140,000	4,500	315,000
d)	1x35 mm sq 4core PVC/PVC Cable+1x35mm sq 1 core PVC Cable.	8	18	Mtr	4,500	81,000	1,500	27,000	2,800	50,400
e)	1x16 mm sq 4core PVC/PVC Cable+ 1 x 10mm sq 1 core PVC Cable.	7.5	18	Mtr	3,800	68,400	700	12,600	1,850	33,300
f)	2(240 mm sq 4core) SWA/PVC Cable	7.5	350	Mtr	20,000	7,000,000	16,000	5,600,000	33,000	11,550,000
g)	2(185 mm sq 4core) SWA/PVC Cable	7.5	350	Mtr	18,000	6,300,000	20,000	7,000,000	29,100	10,185,000
	Sub Total of Main / Sub-main Feeder Rs.					14,395,400		13,269,600		22,987,700
6	Voice System									
6.1	Supply, pulling & fluke testing of Voice cables in PVC Pipe, including labeling at both ends as per drawings. Make: Clipsal / Systimax.									
a)	Cat-5E UTP Cable in 20/25 mm dia PVC Pipe	55	220	Mtr	140	30,800	100	22,000	70	15,400
6.2	Supply, installation & termination of face plates comprising as follows. Make: Clipsal / Systimax.									
a)	1No RJ-11 socket outlet	2.8	12	Nos	400	4,800	300	3,600	900	10,800
6.3	Supply, installation & termination of 24 port RJ-45 Cat-5E UTP Patch Panel complete with all accessories. Make: Clipsal / Systimax.									
a)	1 meter long	6	12	Nos	350	4,200	3,500	42,000	390	4,680
b)	3 meter long	1.2	3	Nos	425	1,275	500	1,500	950	2,850
	Sub Total of Data & Voice System Rs.					86,075		72,100		44,230
7	Networking									
7.1	Supplying, Termination, installing and deploying, CAT-6 wires as for all nodes mentioned in drawing with end to end fluke testing of deployed internet cable in PVC pipes, including labelling and tagging at both ends, proper harnessed and structured cabling system, including fixing them in communication racks, with layers-3 Gigabit manageable switches with SFP Modules as Duplex SFP ports /media converters for Fiber uplinks with Cable managers patch panels to accommodate each and every node, with all accessories complete in respect as needed or as required, make 3-M /Panaduit / Schneider.									
7.2	Supply, installation fixing and termination of single gang network Faceplates with I/O'S fixed in it for RJ-45 CAT-6 UTP wire, with all accessories complete in all respect as needed or as required, make 3-M /Panaduit / Schneider.									

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INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES-ICCBS UNIVERSITY OF KARACHI

COMPARATIVE STATEMENT - ELECTRICAL WORKS

S. No.	DESCRIPTION	QTY	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises		
					RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises		
7.3	Supplying, providing and deploying of network I/O's UPS. CAT-6 RJ - 45 as connecting port with all accessories complete in respect as needed or as required make 3-M /Panaduit / Schneider.		118	Nos	65,000	7,670,000	460	54,280	975	115,050	
7.4	Supplying, Termination,Installing and deploying of Ethernet Patch Panels , cable managers and cable organizers for the same deployed Ethernet CAT-6 data wires nad nodes as RJ-45 connecting ports with all accessories complete in all respects as needed or as required. make 3-M /Panaduit / Schneider.		2	Nos	15,000	30,000	20,000	40,000	8,500	17,000	
7.5	Supplying , providing and installing communication Rack 18 u with rotatable tires, sliding trays No.2 and fixed trays No-3 with 3M/ Panduit front cable organizers and with 12 sockets		1	Nos	400	400	30,000	30,000	20,000	20,000	
7.6	Supply of 1 meter long CAT-6 UTP RJ-45 To RJ data wire Make 3-M /Panduit / Schneider .		118	Nos	500	59,000	300	35,400	450	53,100	
7.7	Supply of 3 meter long CAT-6 UTP RJ-45 To RJ data wire Make 3-M /Panduit / Schneider .		118	Nos	210	24,780	430	50,740	1,100	129,800	
7.8	Supplying providing installation and configuring 24 Port GIGA ABIT CISCO, Layer 3 Manageable Switch with 2 Fiber SFP duplex ports with all ports with all Racks mounted accessories with all required accessories complete in all respect as needed or as required.		1	Nos	70,000	70,000	75,000	75,000	375,000	375,000	
7.9	Supplying providing installation and configuring 24 Port GIGA ABIT CISCO, Layer 3 Manageable PoE Switch with 2 Fiber SFP duplex ports with all ports with all Racks mounted accessories with all required accessories complete in all respect as needed or as required.		1	Nos	50,000	50,000	75,000	75,000	275,000	275,000	
7.10	Supplying providing installation and configuring 24 Port GIGA ABIT CISCO, Layer 3 Manageable Switch with 2 SFP ports with all Racks mounted accessories with all required accessories complete in all respect as needed or as required.		2	Nos	45,000	90,000	75,000	150,000	180,000	360,000	
7.11	Providing of Fiber Patch Cords 3 Meter long SC or as required		4	Nos	3,000	12,000	2,000	8,000	425	1,700	
7.12	Providing of Fiber Patch Cords 3 Meter long LC , to LC or as required		4	Nos	4,000	16,000	2,000	8,000	475	1,900	
Sub Total of Networking Rs.						8,494,180		1,990,800		1,817,600	
8	Fire Alarm System										
8.1	Wiring with 2 X 1.5 sqmm fire resistant cables for Conventional Fire Alarm system in 20mm dia PVC conduit clipped to be surface or concealed in building fabric, including labelling at both ends, complete as per drawing.		5.4	26	Nos	1,200	31,200	6,000	156,000	1,250	32,500
8.2	Supply, installation & testing of Conventional Fire Alarm Control Panel (8 zones) including back up battery and all accessories, required to complete the job.		1	No	75,000	75,000	60,000	60,000	72,000	72,000	
8.3	Supply, installation & testing of Fire Alarm system devices / components with MS back boxes.		1	No	25,000	25,000	400	400	70,000	70,000	
a)	Smoke Detector.		6	26	Nos	4,000	104,000	2,500	65,000	5,950	154,700
b)	Heat Detector.		3	1	Nos	4,000	4,000	3,000	3,000	3,500	3,500
c)	Manual Call Point.			4	Nos	2,000	8,000	2,000	8,000	3,950	15,800
d)	Fire Alarm Bell.			4	Nos	3,000	12,000	3,000	12,000	6,400	25,600
e)	End of line resistance.			4	Nos	100	400	2,000	8,000	5,000	20,000
f)	Fire Alarm Hooters.			3	Nos	2,500	7,500	6,000	18,000	15,000	45,000
Sub Total of Fire Alarm System Rs.						267,100		330,400		439,100	



CONSTRUCTION OF GROUND FLOOR OF VIROLOGY & UTILITY BUILDINGS, HEJ RESEARCH INSTITUTE OF CHEMISTRY,
INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES-ICCBS UNIVERSITY OF KARACHI

COMPARATIVE STATEMENT - ELECTRICAL WORKS

S. No.	DESCRIPTION	QTY	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
					RATE	AMOUNT	RATE	AMOUNT	M/s. Ammar Enterprises	
9	Close Circuit TV System.									
	Supply & Pulling of following CCTV in 20mm dia PVC Pipe including labelling at both ends.									
a)	3MP IP Network IR Camera	45	13	Nos	7,500	97,500	15,000	195,000	19,800	257,400
b)	NVR 24 Channel support upto 4 TB HDD X 2		1	Nos	20,000	20,000	70,000	70,000	8,200	8,200
c)	8 Port GB POE Network Switch		3	Nos	12,000	36,000	25,000	75,000	35,000	105,000
d)	HDD 4 TB SATA Surveillance		1	Nos	8,000	8,000	18,000	18,000	3,000	3,000
e)	CAT-6 Data Cable for Camera Installation 3M or equivalent from NVR to Camera		13	Nos	2,500	32,500	800	10,400	6,500	84,500
f)	Wall mount rack		2	Nos	1,500	3,000	13,000	26,000	8,000	16,000
g)	LED Screen 24" (Panasonic / Sony)		2	Nos	35,000	70,000	30,000	60,000	3,000	6,000
	Sub Total of Close Circuit TV System Rs.					267,000		454,400		480,100
10	Access Control System									
10.1	Supply & Pulling of access control wiring cat-6 UTP cable in 20mm dia PVC Pipe.	Mtr	380	Mtr	150	57,000	100	38,000	85	32,300
10.2	Supply, Installation, Testing, Commissioning, Training & Programming of following Access Control System.									
a)	Network Proximity Access Control Panel.	Nos	10	Nos	20,000	200,000	7,000	70,000	9,500	95,000
b)	Push button.	Nos	10	Nos	3,000	30,000	1,000	10,000	8,600	86,000
c)	Converter	Nos	1	Nos	10,000	10,000	60,000	60,000	25,000	25,000
d)	Electromagnetic Lock.	Nos	10	Nos	10,000	100,000	5,000	50,000	6,900	69,000
e)	PVC Card, Proximity - HID 125 KHZ, Graphics quality, printable PVC Card for use with HID 125 KHZ readers.	Nos	1	Nos	1,500	1,500	1,000	1,000	70,000	70,000
f)	Power Supply with Battery back-up panel.	Nos	1	Nos	10,000	10,000	20,000	20,000	45,000	45,000
	Sub Total of Access Control System Rs.					408,500		249,000		422,300
11	Earthing System									
a	Providing & fixing of earthing rod 6 feet long 100 percent pure copper inserted in the ground, at a depth of 120 feet from the ground level (with salt and charcoal, or earthing chemical powder) etc making the bore of 120 feet deep by boring in Hard type of soil i/c fixing of 8 SWG copper wire in 1/2" G.I conduit with earth connecting point with all necessary accessories complete in all respect as required.		2	Job	40,000	80,000	100,000	200,000	225,000	450,000
	Sub Total of Earthing System Rs.					80,000		200,000		450,000

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**CONSTRUCTION OF GROUND AND FIRST FLOOR VIROLOGY AND UTILITY BUILDINGS, HEJ RESEARCH INSTITUTE
OF CHEMISTRY, UNIVERSITY OF KARACHI (Non Schedule)**

COMPARATIVE STATEMENT - PLUMBING WORKS

S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
	PLUMBING WORKS								
	All items under this head to be carried out as per specifications, Drawings and relevant BSI/ASTM Standards to the entire satisfaction of the Engineer.								
A	WATER SUPPLY:								
1	COLD/HOT WATER PIPING:								
	Supply, installation Testing and Commissioning of PPR PN - 20 Cold/Hot water pipes as per DIN 8077-8078 with molded fittings PN - 25 as per DIN 16962, including pipe supports as indicated on the drawing, as per specifications and Engineers approval.								
a									
(i)	20mm dia.	Rft	300	210.00	63,000.00	140.00	42,000.00	85.00	25,500.00
(ii)	25mm dia.	Rft	160	240.00	38,400.00	200.00	32,000.00	98.00	15,680.00
(iii)	32mm dia.	Rft	20	270.00	5,400.00	450.00	9,000.00	120.00	2,400.00
(iv)	38mm dia.	Rft	160	290.00	46,400.00	350.00	56,000.00	225.00	36,000.00
(v)	50mm dia.	Rft	40	310.00	12,400.00	600.00	24,000.00	330.00	13,200.00
2	ISOLATION/GATE VALVE:								
	Providing and fixing of brass (PPR coated) ball valves as indicated on the drawing and as specified in specifications								
a									
(i)	20mm dia.	Nos.	8	1,200.00	9,600.00	1,000.00	8,000.00	1,500.00	12,000.00
(ii)	25mm dia.	Nos.	4	1,600.00	6,400.00	2,500.00	10,000.00	1,650.00	6,600.00
(iii)	32mm dia.	Nos.	1	1,800.00	1,800.00	2,500.00	2,500.00	1,800.00	1,800.00
(iv)	38mm dia.	Nos.	2	2,400.00	4,800.00	2,500.00	5,000.00	2,000.00	4,000.00
(v)	50mm dia.	Nos.	2	3,200.00	6,400.00	10,000.00	20,000.00	2,200.00	4,400.00
3	Water Geyser								
	Supply and installation of Gas fired hot water geyser with below mentioned capacity including, 2 nos brass ball valves for piping, accessories, etc., complete all in accordance with the drawing and specifications.								
a									
(i)	30 Gallons capacity	Nos	2	30,000.00	60,000.00	20,000.00	40,000.00	30,000.00	60,000.00
4	2 STAGE UV FILTERS								
	Supply and installation of Two stage UV filter of minimum 0.8 GPM flow for Kitchen Pantry with valves, piping, accessories, etc., as indicated on the drawing, as per specifications and Engineers approval.								
a									
(i)		Nos	2	10,000.00	20,000.00	10,000.00	20,000.00	15,000.00	30,000.00
5	WATER TANK:								
	Connection from external network to RCC water tanks including fittings, float valves, vent pipes, accessories, valves, supports, warning pipes, low and high level float switches, etc. as per specifications								
a									
(i)		Job	1	100,000.00	100,000.00	15,000.00	15,000.00	20,000.00	20,000.00
	Sub Total for Water Supply				374,600.00		283,500.00		231,580.00

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**CONSTRUCTION OF GROUND AND FIRST FLOOR VIROLOGY AND UTILITY BUILDINGS, HEJ RESEARCH INSTITUTE
OF CHEMISTRY, UNIVERSITY OF KARACHI (Non Schedule)**

COMPARATIVE STATEMENT - PLUMBING WORKS

S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
	SOIL SANITARY WASTE AND VENT & RW PIPES:								
6	SOIL, WASTE & VENT SYSTEM:								
a	Providing, fixing, Testing and commissioning of uPVC pipes Class 'B' Pipes and fittings as per BS 4660 for above ground installations for Soil, Waste, Vent & Rw pipes including cleanout plug, clamps, hanger collars, supports, specials (bend, tees, Y-tee etc.) as indicated on the drawing, as per specifications and Engineers approval.								
(i)	50mm dia.	Mtr.	180	700.00	126,000.00	800.00	144,000.00	510.00	91,800.00
(ii)	75mm dia.	Mtr.	40	900.00	36,000.00	1,300.00	52,000.00	850.00	34,000.00
(iii)	100mm dia.	Mtr.	250	1,200.00	300,000.00	1,500.00	375,000.00	1,150.00	287,500.00
7	Providing, fixing, Testing and commissioning of uPVC pipes and fittings as per EN 1401 for below grade installations for Soil, Waste, Vent & Rw pipes including cleanout plug, clamps, hanger collars, supports, specials (bend, tees, Y-tee etc.) as indicated on the drawing, as per specifications and Engineers approval.								
(i)	150mm dia.	Mtr.	20	1,600.00	32,000.00	2,000.00	40,000.00	1,250.00	25,000.00
8	DRAINAGE SPECIALTIES								
a	Providing and fixing of PVC floor Trap/floor drain with multiple inlets and 75mm dia outlet with S.S grating the approved design as per specifications	Nos	2	1,800.00	3,600.00	1,500.00	3,000.00	1,500.00	3,000.00
9	MANHOLES AND GULLY TRAPS / GREASE								
(i)	Sewer Manhole	Nos.	4	15,000.00	60,000.00	20,000.00	80,000.00	18,000.00	72,000.00
(ii)	750mm x 750mm Greece trap	Nos.	1	15,000.00	15,000.00	50,000.00	50,000.00	14,000.00	14,000.00
(iii)	300mm x 300mm Gully trap	Nos.	6	8,000.00	48,000.00	10,000.00	60,000.00	8,500.00	51,000.00
Sub Total for Drainage System					620,600.00		804,000.00		578,300.00
10	PLUMBING FIXTURES:								
a	Providing and fixing wash basin by Porta with mixer by Sonex/Master, two (2) nos. Stop cocks with Flexible Connection , flexible drain pipe to floor drain as per drawings, specifications and engineers approval.	Nos.	12	10,000.00	120,000.00	15,000.00	180,000.00	10,500.00	126,000.00
Sub Total for Fixtures					120,000.00		180,000.00		126,000.00

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CONSTRUCTION OF GROUND AND FIRST FLOOR VIROLOGY AND UTILITY BUILDINGS, HEJ RESEARCH INSTITUTE
OF CHEMISTRY, UNIVERSITY OF KARACHI (Non Schedule)

COMPARATIVE STATEMENT - PLUMBING WORKS

S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
	NATURAL GAS								
11	GAS PIPING								
a	Providing and fixing of G.I (Medium) pipe and fitting by ILL, conforming to and approved by Local Gas Company standards to correct Lines, Levels and Grade, coating and wrapping including fixing and laying, fitting, valve, flanges, reducers, tees, sockets, bends, clamps, support, excavation works complete with testing and as per drawings, specifications and requirements of local gas company complete in all respects.								
(i)	12mm dia.	Rft	250	300.00	75,000.00	160.00	40,000.00	110.00	27,500.00
(ii)	20mm dia.	Rft	120	320.00	38,400.00	190.00	22,800.00	130.00	15,600.00
b	Making service connection with existing Gas Company mains with necessary approval and directions by the Local Gas Company.	Nos.	1	20,000.00	20,000.00	20,000.00	20,000.00	25,000.00	25,000.00
c	Providing and fixing brass ball valve with unsoldered copper ball conforming to API standards and approved by Local Gas Company.								
(i)	12mm dia.	Nos.	4	800.00	3,200.00	1,500.00	6,000.00	355.00	1,420.00
(ii)	20mm dia.	Nos.	4	1,200.00	4,800.00	2,000.00	8,000.00	410.00	1,640.00
Sub Total for Gas Works					141,400.00		96,800.00		71,160.00
	FIRE PROTECTION SPECIALTIES:								
12	FIRE SUPPRESSION PIPING, VALVES AND ACCESSORIES								
a	Fire Hose cabinet made of M.S sheet by SRI or Equivalent front glass fitted with lock and handle red color power coating size along with following equipment.								
(i)	25mm diameter 1X30m high pressure rubber hose reel tested on 30 bar with PRV (Pressure Reducing valve)								
(ii)	Painted with electrostatic power paint oven baked to protect against rust and to give smooth finishing.	Nos.	2	35,000.00	70,000.00	15,000.00	30,000.00	65,000.00	130,000.00
(iii)	Adjustable plastic Nozzle for Jet spray	Nos.	2	5,000.00	10,000.00	4,000.00	8,000.00	2,500.00	5,000.00
(iv)	Brass gate valve 25mm.	Nos.	2	12,000.00	24,000.00	7,500.00	15,000.00	12,500.00	25,000.00
b)	Supply & installation of seamless galvanized 40 black steel pipe work including all fittings, supports, hangers, painting of fire protection system of following sizes.								
(i)	75mm" dia.	Mtr	65	4,000.00	260,000.00	3,500.00	227,500.00	16,000.00	1,040,000.00

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COMPARATIVE STATEMENT - PLUMBING WORKS

S. No.	DESCRIPTION	UNIT	QTY	Engineers Estimate		M/s. Wakeel Enterprises		M/s. Ammar Enterprises	
				RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
13	FIRE PUMP								
a	NFPA 20 compliance Vertical Turbine type Fire pump set comprising of 1 main electric pump (duty) + 1 Diesel Engine Pump (Stand by) + jockey pump + pressure vessel with Following Capacities Main pump duty = 500 GPM at 300 ft head (approx.) Duty pump duty = 500 GPM at 300 ft head (approx.) Jockey pump duty = 50 GPM at 310 ft head (approx.) Pressure vessel = 200 lit Fuel Tank = 100 lit (as recommended by manufacturer) Valves and fitting from Suction to Discharge header, Including all wiring, controls, etc., complete all in accordance with the drawings and specifications.	Nos.	1	500,000.00	500,000.00	1,500,000.00	1,500,000.00	150,000.00	150,000.00
14	FIRE SPECIALITIES								
a	6 Kg CO2 wall mounted fire extinguisher.	Nos.	15	7,500.00	112,500.00	7,500.00	112,500.00	8,250.00	123,750.00
b	6 Kg Dry powder wall mounted fire extinguisher.	Nos.	15	5,500.00	82,500.00	4,000.00	60,000.00	7,500.00	112,500.00
c	Flow switch for test pipe	Nos.	2	16,500.00	33,000.00	1,000.00	2,000.00	5,250.00	10,500.00
d	Pressure Gauge	Nos.	1	1,700.00	1,700.00	1,500.00	1,500.00	3,000.00	3,000.00
e	Automatic Air Vent to be installed on top of each Riser	Nos.	1	18,500.00	18,500.00	2,000.00	2,000.00	2,500.00	2,500.00
15	VALVES								
a	Supply, installation, testing and commissioning of O.5 and Y type gate valves of below mentioned diameter as indicated on the drawings, as per specifications and engineers Estimate								
(i)	32mm dia.	Nos.	1	1,500.00	1,500.00	1,000.00	1,000.00	5,000.00	5,000.00
(ii)	37mm dia.	Nos.	1	2,000.00	2,000.00	1,500.00	1,500.00	6,000.00	6,000.00
(iii)	75mm dia.	Nos.	6	3,500.00	21,000.00	3,000.00	18,000.00	8,500.00	51,000.00
Sub Total for Fire Protection System					1,136,700.00		1,979,000.00		1,664,250.00
16	OVER HEAD FIBER TANK								
a)	Supply and fixing Water Tank made of fiber glass capacity 1800 liter, ..	Nos.	1	33,000.00	33,000.00	50,000.00	50,000.00	45,000.00	45,000.00
Sub Total for Fiber Glass Tank					33,000.00		50,000.00		45,000.00

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