

REFERENCE FOR PROPOSAL (RFP)
Providing and Fixing Water Filtration Facilities at All Campuses of
The Islamia University of Bahawalpur

A. Back Ground:-

The Islamia University of Bahawalpur is Public Sector University in Southern Punjab. It has three campuses in Bahawalpur, one at Bahawalnagar and two campuses at Rahim Yar Khan. The University intends to provide best quality drinking water as per Pakistan Standards to all the students and residents of Islamia University.

B. Object:-

The Islamia University of Bahawalpur invites proposals from eligible parties having vast experience in the field of design, construction, procurement, operation and maintenance of water filtration facilities for educational institutions. The object is to install water filtration units for entire of the buildings or a particular drinking water outlet as per need and the results of water quality test reports.

C. Scope of Assignments

- Selection of the most efficient, economical, high quality, long lasting easy to operate & maintain water filtration system comprising of UV, UF, RO technology and/or its combinations.
- Designing and installation complete with housing, electrical, hydraulic, mechanical components and plumbing works.
- Two years of operation and maintenance with selection of such components which have availability over its life.

The Detail of Campuses and building is as under:-

a. Baghdad-ul-Jadeed Campus at Bahawalpur

Sr	Name of Building	Students Strength
1	Ali Hall	750
2	Umer Hall	500
3	Usman Hall	500
4	Ahmad Hall	500
5	Ayesha Hall	750
6	Fatima Hall	750
7	Amna Hall	750
8	Khadija Hall	750
9	Zainab Hall	500
10	Haleema Hall	500
11	Faculty of Sciences	3357
12	Faculty of Arts	2596
13	Faculty of Islamic Learning	994
14	Faculty of Education	1778
15	Faculty of Engineering	504
16	University College of Agricultural & Environmental Sciences	1408

17	Faculty of Management Sciences	2467
18	Library	500
19	Staff Residences (204)	1224

b. Abbasia Campus at Bahawalpur

01	Administration Block	1200
02	Abu Baker Hall	750
03	Rabia Hall	250

c. Khawaja Fareed Campus Bahawalpur

01	Faculty of Pharmacy	1000
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d. Sub Campus at Rahim Yar Khan

01	Academic Block	1200
02	Iqbal Hall	500
03	Ayesha Hall	500
04	Administration Block	50

e. Sub Campus at Bahawalnagar Campus

01	Academic Block	1200
02	Old Campus	1200
03	Ayesha Hall	500

Technical proposal should be accompanied by the selection of filtration unit, its specification, quality, capacity with justification for each of the building, detail of which is at a, b, c, d & e.

D. Duration

The completion time for the selection, design, provision and installation of the water filtration plants will be 3 months and the bid validity period will be 3 months.

E. Payment Schedule

- 50 % on Supply of water filtration plant at site
- 25% on Installation complete in all respects
- 25% on Testing (Water quality), Commissioning of system

F. Retention Money

10% of the work done will be deducted from each payment, which will be released upon after satisfactory working of one year.

G. Operational & Maintenance

Offered cost should cover the O&M charges for two years

H. Taxes

The proposal must be inclusive of all taxes applicable.

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I. Compensation for delay

Compensation for delay will be maximum up to 10% of offered cost, depending upon the delay.

J. Evaluation Criteria

Technical Evaluation will be carried out based on following parameters

- i. **Business Registration of firm** 05 marks
- ii. **Registration with FBR** (Income Tax/Sales Tax Registration) 05 marks
- iii. **Experience of firm**
(Maximum marks for 10 years experience, relative marking for others) 10 marks
- iv. **List of 10 similar works carried out in last 5 years**
(Maximum marks for 10 projects of similar value and nature, relative marking for others) 20 marks
- v. **List of Technical/Engineering Staff with qualification**
 - Design Engineers 3 Marks
 - Fabrication staff as Manufacturing Setup 4 marks
 - Construction/Field Staff 3 marks(Attach Details) 10 marks
- vi. **Quality of Water Purification System**
(Maximum marks for selection/provision of certified components. filtration vessels, membranes, pumps, gauges, meters, filtration elements, electrical components, housing etc) 10 marks
- vii. **Availability of components at local level** 05 marks
- viii. **Operation and Maintenance services**
(Maximum marks for O&M setup and follow-up. Give precedence/history) 10 marks
- ix. **Logistic supports**
(Maximum marks for local presence at Bahawalpur/ Bahawalnagar, RY Khan & Multan City) 05 marks
- x. **Annual turnover**
(Maximum marks for annual turnover of Rs 200 millions, relative marking for others) 20 marks

20 marks
Total 100 Marks

65 % score will be the passing criteria for technical proposal

K. Financial Evaluation Criteria

Financial evaluation of technically responsive bidder as per "two stages two envelope procedure" shall be performed on the basis of least cost. Lowest offer shall be declared successful.

L. Financial Bid

Financial bids are to be submitted in line with the technical proposal, separate for each premises/building. The price will include all taxes.

M. Enhancement/Curtailment

The university reserves the right of enhancement or curtailment of the assignment/contract as per administrative needs.

N. Bidding Procedure

The bids shall be submitted as per PPRA "two stage two envelope bidding method".

Proposals are to be submitted to

Project Director

Baghdad-ul-jadeed Campus

The Islamia University of Bahawalpur

Phone: 062-9255455

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27/01/20
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PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES

Ministry of Science & Technology, Government of Pakistan

Regional Office, 29 Sajid Awan Colony Bahawalpur

www.pcrwr.gov.pk

Contact us: 062-9250191-189

WATER QUALITY ANALYSIS REPORT

Client Name & Address	Syed Fasih-ud-Din, Xen (M) Rahim Yar Khan Campus IUB Rahim Yar Khan		
Sample Collect By	Client	Reporting Date	12-09-2019
RWQL Sample Code	BWP/WQL/P/3842	Client Code	Abe-Hayat Canal
Room Temperature °C	28.5 °C	Sample Receipt Date	02-09-2019

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits		Results
					(NSDWQ/ Pak EPA, 2010)	(WHO; 2004)	
1	Color	-	-	Sensory evaluation	Colorless	Colorless	Colorless
2	Electrical Conductivity	(µS/cm)	0.2875	APHA, 21 st Edition	NGVS	NGVS	3050
3	pH	-	0.02	APHA, 21 st Edition	6.5-8.5	6.5-8.5	7.61
4	Alkalinity	ppm	-	APHA, 21 st Edition	NGVS	NGVS	4.1
5	Bicarbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	205
6	Calcium	ppm	2.0	APHA, 21 st Edition	NGVS	200	100
7	Carbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	Nil
8	Chloride	ppm	2.0	APHA, 21 st Edition	250	250	225.6
9	Hardness	ppm	5.0	APHA, 21 st Edition	500	500	1030
10	Magnesium	ppm	1.0	APHA, 21 st Edition	NGVS	150	189
11	Potassium	ppm	0.2	APHA, 21 st Edition	NGVS	12	14
12	Sodium	ppm	1.0	APHA, 21 st Edition	NGVS	200	296
13	Sulfate	ppm	0.4	APHA, 21 st Edition	NGVS	250	1097
14	Nitrate (N)	ppm	0.06	APHA, 21 st Edition	10	10	0.667
15	Turbidity	NTU	0.2	APHA, 21 st Edition	05	05	0.41
16	TDS	ppm	-	APHA, 21 st Edition	1000	1000	1952
17	Arsenic	ppb	-	By kit (PCRWR)	50	10	05
18	Fluoride	ppm	0.03	APHA, 21 st Edition	1.5	1.5	1.32
19	Iron	ppm	0.03	APHA, 21 st Edition	NGVS	0.3	0.09
20	Total Coliform	CFU/ml	<2	3M Petrifilm Plates	-ve	-ve	29
21	E.Coli	CFU/ml	<2		-ve	-ve	-ve

NGVS: No Guideline Value Set WHO: World Health Organization APHA: American Public Health Association, BDL: Below Detection Limit, QC: Quality Control, CSS: Customer Service Section, NSDWQ: National Standard for Drinking Water Quality, NEQS: National Environment Quality Standards

Quality of Water (Chemical)	Safe <input type="checkbox"/>	Unsafe <input checked="" type="checkbox"/>
Quality of Water (Microbiological)	Safe <input type="checkbox"/>	Unsafe <input checked="" type="checkbox"/>

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Note: - Sample collected & submitted by client for analysis to PCRWR; client would hold whole credibility/responsibility of above mentioned sample Source, location & address.

Prepared by	Muhammad Saffar (L.A)	Checked & Verified by	Dr. Ayesha Sumreen (R.O)
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WATER QUALITY ANALYSIS REPORT

Client Name & Address	Syed Fasih-ud-Din, Xen (M) Rahim Yar Khan Campus IUB Rahim Yar Khan		
Sample Collect By	Client	Reporting Date	12-09-2019
RWQL Sample Code	BWP/WQL/P/3841	Client Code	Turbine
Room Temperature °C	28.5 °C	Sample Receipt Date	02-09-2019

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits		Results
					(NSDWQ/ Pak EPA, 2010)	(WHO; 2004)	
1	Color	-	-	Sensory evaluation	Colorless	Colorless	Colorless
2	Electrical Conductivity	(µS/cm)	0.2875	APHA, 21 st Edition	NGVS	NGVS	2968
3	pH	-	0.02	APHA, 21 st Edition	6.5-8.5	6.5-8.5	7.58
4	Alkalinity	ppm	-	APHA, 21 st Edition	NGVS	NGVS	4.2
5	Bicarbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	210
6	Calcium	ppm	2.0	APHA, 21 st Edition	NGVS	200	108
7	Carbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	Nil
8	Chloride	ppm	2.0	APHA, 21 st Edition	250	250	232.8
9	Hardness	ppm	5.0	APHA, 21 st Edition	500	500	1010
10	Magnesium	ppm	1.0	APHA, 21 st Edition	NGVS	150	180
11	Potassium	ppm	0.2	APHA, 21 st Edition	NGVS	12	13
12	Sodium	ppm	1.0	APHA, 21 st Edition	NGVS	200	280
13	Sulfate	ppm	0.4	APHA, 21 st Edition	NGVS	250	995
14	Nitrate (N)	ppm	0.06	APHA, 21 st Edition	10	10	0.667
15	Turbidity	NTU	0.2	APHA, 21 st Edition	05	05	0.52
16	TDS	ppm	-	APHA, 21 st Edition	1000	1000	1899
17	Arsenic	ppb	-	By kit (PCRWR)	50	10	05
18	Fluoride	ppm	0.03	APHA, 21 st Edition	1.5	1.5	1.38
19	Iron	ppm	0.03	APHA, 21 st Edition	NGVS	0.3	0.08
20	Total Coliform	CFU/ml	<2	3M Petrifilm Plates	-ve	-ve	-ve
21	E.Coli	CFU/ml	<2		-ve	-ve	-ve

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Quality of Water (Chemical)	Safe <input type="checkbox"/>	Unsafe <input checked="" type="checkbox"/>
Quality of Water (Microbiological)	Safe <input checked="" type="checkbox"/>	Unsafe <input type="checkbox"/>

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WATER QUALITY ANALYSIS REPORT

Client Name & Address	Syed Fasih-ud-Din, Xen (M) Railway Campus IUB Bahawalpur		
Sample Collect By	Client	Reporting Date	01209-2019
RWQL Sample Code	BWP/WQL/P/3836	Client Code	Submersible Pump
Room Temperature °C	28.5 °C	Sample Receipt Date	02-09-2019

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits		Results
					(NSDWQ/ Pak EPA, 2010)	(WHO; 2004)	
1	Color	-	-	Sensory evaluation	Colorless	Colorless	Colorless
2	Electrical Conductivity	(µS/cm)	0.2875	APHA, 21 st Edition	NGVS	NGVS	550
3	pH	-	0.02	APHA, 21 st Edition	6.5-8.5	6.5-8.5	7.55
4	Alkalinity	ppm	-	APHA, 21 st Edition	NGVS	NGVS	4.2
5	Bicarbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	210
6	Calcium	ppm	2.0	APHA, 21 st Edition	NGVS	200	56
7	Carbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	Nil
8	Chloride	ppm	2.0	APHA, 21 st Edition	250	250	16.8
9	Hardness	ppm	5.0	APHA, 21 st Edition	500	500	210
10	Magnesium	ppm	1.0	APHA, 21 st Edition	NGVS	150	17
11	Potassium	ppm	0.2	APHA, 21 st Edition	NGVS	12	3.4
12	Sodium	ppm	1.0	APHA, 21 st Edition	NGVS	200	58
13	Sulfate	ppm	0.4	APHA, 21 st Edition	NGVS	250	54.56
14	Nitrate (N)	ppm	0.06	APHA, 21 st Edition	10	10	0.675
15	Turbidity	NTU	0.2	APHA, 21 st Edition	05	05	0.24
16	TDS	ppm	-	APHA, 21 st Edition	1000	1000	352
17	Arsenic	ppb	-	By kit (PCRWR)	50	10	100
18	Fluoride	ppm	0.03	APHA, 21 st Edition	1.5	1.5	0.38
19	Iron	ppm	0.03	APHA, 21 st Edition	NGVS	0.3	0.03
20	Total Coliform	CFU/ml	<2	3M Petrifilm Plates	-ve	-ve	-ve
21	E.Coli	CFU/ml	<2		-ve	-ve	-ve

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Quality of Water (Chemical)	Safe <input type="checkbox"/>	Unsafe <input checked="" type="checkbox"/>
Quality of Water (Microbiological)	Safe <input checked="" type="checkbox"/>	Unsafe <input type="checkbox"/>

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WATER QUALITY ANALYSIS REPORT

Client Name & Address	Syed Fasih-ud-Din, Xen (M) Baghdad-ul-Jadeed Campus IUB Bahawalpur		
Sample Collect By	Client	Reporting Date	12-09-2019
RWQL Sample Code	BWP/WQL/P/3835	Client Code	Khadija Hall
Room Temperature °C	28.5 °C	Sample Receipt Date	02-09-2019

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits		Results
					(NSDWQ/ Pak EPA, 2010)	(WHO; 2004)	
1	Color	-	-	Sensory evaluation	Colorless	Colorless	Colorless
2	Electrical Conductivity	(µS/cm)	0.2875	APHA, 21 st Edition	NGVS	NGVS	786
3	pH	-	0.02	APHA, 21 st Edition	6.5-8.5	6.5-8.5	7.73
4	Alkalinity	ppm	-	APHA, 21 st Edition	NGVS	NGVS	5.2
5	Bicarbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	260
6	Calcium	ppm	2.0	APHA, 21 st Edition	NGVS	200	48
7	Carbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	Nil
8	Chloride	ppm	2.0	APHA, 21 st Edition	250	250	64.8
9	Hardness	ppm	5.0	APHA, 21 st Edition	500	500	220
10	Magnesium	ppm	1.0	APHA, 21 st Edition	NGVS	150	29
11	Potassium	ppm	0.2	APHA, 21 st Edition	NGVS	12	7.4
12	Sodium	ppm	1.0	APHA, 21 st Edition	NGVS	200	82
13	Sulfate	ppm	0.4	APHA, 21 st Edition	NGVS	250	101
14	Nitrate (N)	ppm	0.06	APHA, 21 st Edition	10	10	0.286
15	Turbidity	NTU	0.2	APHA, 21 st Edition	05	05	0.10
16	TDS	ppm	-	APHA, 21 st Edition	1000	1000	503
17	Arsenic	ppb	-	By kit (PCRWR)	50	10	25
18	Fluoride	ppm	0.03	APHA, 21 st Edition	1.5	1.5	0.75
19	Iron	ppm	0.03	APHA, 21 st Edition	NGVS	0.3	0.02
20	Total Coliform	CFU/ml	<2	3M Petrifilm Plates	-ve	-ve	04
21	E.Coli	CFU/ml	<2	✓	-ve	-ve	-ve

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Quality of Water (Chemical)	Safe <input checked="" type="checkbox"/> According to NSDWQ	Unsafe <input type="checkbox"/>
Quality of Water (Microbiological)	Safe <input type="checkbox"/>	Unsafe <input checked="" type="checkbox"/>

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WATER QUALITY ANALYSIS REPORT

Client Name & Address	Syed Fasih-ud-Din, Xen (M) Baghdad-ul-Jadeed Campus IUB Bahawalpur		
Sample Collect By	Client	Reporting Date	12-09-2019
WQL Sample Code	BWP/WQL/P/3834	Client Code	Turbine No. 02
Water Temperature °C	28.5 °C	Sample Receipt Date	02-09-2019

Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits		Results
				(NSDWQ/ Pak EPA, 2010)	(WHO; 2004)	
Color	-	-	Sensory evaluation	Colorless	Colorless	Colorless
Electrical Conductivity	(µS/cm)	0.2875	APHA, 21 st Edition	NGVS	NGVS	781
pH	-	0.02	APHA, 21 st Edition	6.5-8.5	6.5-8.5	7.5
Alkalinity	ppm	-	APHA, 21 st Edition	NGVS	NGVS	3.2
Bicarbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	160
6 Calcium	ppm	2.0	APHA, 21 st Edition	NGVS	200	40
7 Carbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	Nil
8 Chloride	ppm	2.0	APHA, 21 st Edition	250	250	67.2
9 Hardness	ppm	5.0	APHA, 21 st Edition	500	500	210
10 Magnesium	ppm	1.0	APHA, 21 st Edition	NGVS	150	27
11 Potassium	ppm	0.2	APHA, 21 st Edition	NGVS	12	7.1
12 Sodium	ppm	1.0	APHA, 21 st Edition	NGVS	200	77
13 Sulfate	ppm	0.4	APHA, 21 st Edition	NGVS	250	113.5
14 Nitrate (N)	ppm	0.06	APHA, 21 st Edition	10	10	0.252
15 Turbidity	NTU	0.2	APHA, 21 st Edition	05	05	Nil
16 TDS	ppm	-	APHA, 21 st Edition	1000	1000	500
17 Arsenic	ppb	-	By kit (PCRWR)	50	10	25
18 Fluoride	ppm	0.03	APHA, 21 st Edition	1.5	1.5	0.85
19 Iron	ppm	0.03	APHA, 21 st Edition	NGVS	0.3	0.02
20 Total Coliform	CFU/ml	<2	3M Petrifilm Plates	-ve	-ve	-ve
21 E.Coli	CFU/ml	<2		-ve	-ve	-ve

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Quality of Water (Chemical)	Safe <input checked="" type="checkbox"/> According to NSDWQ	Unsafe <input type="checkbox"/>
Quality of Water (Microbiological)	Safe <input checked="" type="checkbox"/>	Unsafe <input type="checkbox"/>

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WATER QUALITY ANALYSIS REPORT

Client Name & Address	Syed Fasih-ud-Din, Xen (M) Abbasia Campus IUB Bahawalpur		
Sample Collect By	Client	Reporting Date	12-09-2019
RWQL Sample Code	BWP/WQL/P/3838	Client Code	Abubakar Hall
Room Temperature °C	28.5 °C	Sample Receipt Date	02-09-2019

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits		Results
					(NSDWQ/ Pak EPA, 2010)	(WHO, 2004)	
1	Color	-	-	Sensory evaluation	Colorless	Colorless	Colorless
2	Electrical Conductivity	(µS/cm)	0.2875	APHA, 21 st Edition	NGVS	NGVS	845
3	pH	-	0.02	APHA, 21 st Edition	6.5-8.5	6.5-8.5	7.42
4	Alkalinity	ppm	-	APHA, 21 st Edition	NGVS	NGVS	4.8
5	Bicarbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	240
6	Calcium	ppm	2.0	APHA, 21 st Edition	NGVS	200	64
7	Carbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	Nil
8	Chloride	ppm	2.0	APHA, 21 st Edition	250	250	38.4
9	Hardness	ppm	5.0	APHA, 21 st Edition	500	500	300
10	Magnesium	ppm	1.0	APHA, 21 st Edition	NGVS	150	34
11	Potassium	ppm	0.2	APHA, 21 st Edition	NGVS	12	4.8
12	Sodium	ppm	1.0	APHA, 21 st Edition	NGVS	200	68
13	Sulfate	ppm	0.4	APHA, 21 st Edition	NGVS	250	130.5
14	Nitrate (N)	ppm	0.06	APHA, 21 st Edition	10	10	0.679
15	Turbidity	NTU	0.2	APHA, 21 st Edition	05	05	3.15
16	TDS	ppm	-	APHA, 21 st Edition	1000	1000	541
17	Arsenic	ppb	-	By kit (PCRWR)	50	10	100
18	Fluoride	ppm	0.03	APHA, 21 st Edition	1.5	1.5	0.37
19	Iron	ppm	0.03	APHA, 21 st Edition	NGVS	0.3	0.09
20	Total Coliform	CFU/ml	<2	3M Petrifilm Plates	-ve	-ve	-ve
21	E.Coli	CFU/ml	<2		-ve	-ve	-ve

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Quality of Water (Chemical)	Safe <input type="checkbox"/>	Unsafe <input checked="" type="checkbox"/>
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Prepared by	Muhammad Saifur (L.A)	Checked & Verified by	Dr. Ayesha Sumreen (R.O)
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PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES

Ministry of Science & Technology, Government of Pakistan
Regional Office, 29 Sajid Awan Colony Bahawalpur
www.pcrwr.gov.pk
Contact us: 062-9250191-189

WATER QUALITY ANALYSIS REPORT

Client Name & Address	Syed Fasih-ud-Din, Xen (M) Abbasia Campus IUB Bahawalpur		
Sample Collect By	Client	Reporting Date	12-09-2019
RWQL Sample Code	BWP/WQL/P/3837	Client Code	Turbine
Room Temperature °C	28.5 °C	Sample Receipt Date	02-09-2019

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits		Results
					(NSDWQ/ Pak EPA, 2010)	(WHO; 2004)	
1	Color	-	-	Sensory evaluation	Colorless	Colorless	Colorless
2	Electrical Conductivity	(µS/cm)	0.2875	APHA, 21 st Edition	NGVS	NGVS	840
3	pH	-	0.02	APHA, 21 st Edition	6.5-8.5	6.5-8.5	7.36
4	Alkalinity	ppm	-	APHA, 21 st Edition	NGVS	NGVS	4.9
5	Bicarbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	245
6	Calcium	ppm	2.0	APHA, 21 st Edition	NGVS	200	64
7	Carbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	Nil
8	Chloride	ppm	2.0	APHA, 21 st Edition	250	250	36
9	Hardness	ppm	5.0	APHA, 21 st Edition	500	500	290
10	Magnesium	ppm	1.0	APHA, 21 st Edition	NGVS	150	31
11	Potassium	ppm	0.2	APHA, 21 st Edition	NGVS	12	4.9
12	Sodium	ppm	1.0	APHA, 21 st Edition	NGVS	200	69
13	Sulfate	ppm	0.4	APHA, 21 st Edition	NGVS	250	136.2
14	Nitrate (N)	ppm	0.06	APHA, 21 st Edition	10	10	0.699
15	Turbidity	NTU	0.2	APHA, 21 st Edition	05	05	1.21
16	TDS	ppm	-	APHA, 21 st Edition	1000	1000	537
17	Arsenic	> ppb	-	By kit (PCRWR)	50	10	100
18	Fluoride	ppm	0.03	APHA, 21 st Edition	1.5	1.5	0.46
19	Iron	ppm	0.03	APHA, 21 st Edition	NGVS	0.3	0.08
20	Total Coliform	CFU/ml	<2	3M Petrifilm Plates	-ve	-ve	-ve
21	E.Coli	CFU/ml	<2		-ve	-ve	-ve

NGVS: No Guideline Value Set WHO: World Health Organization APHA: American Public Health Association, BDL: Below Detection Limit, QC: Quality Control, CSS: Customer Service Section, NSDWQ: National Standard for Drinking Water Quality, NEQS: National Environment Quality Standards

Quality of Water (Chemical)	Safe <input type="checkbox"/>	Unsafe <input checked="" type="checkbox"/>
Quality of Water (Microbiological)	Safe <input checked="" type="checkbox"/>	Unsafe <input type="checkbox"/>

Terms & Conditions:

- Test results in this report relate only to the test item/sample submitted and tested.
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- Water Quality Parameters exceeding the WHO Drinking Water Guideline values (Guidelines for Drinking-Water Quality, third editions, 2004) National Environmental Quality Standards (1999) and Pakistan Standard Quality Control Authority (PAKEPA, 2008) is highlighted.

Note: - Sample collected & submitted by client for analysis to PCRWR; client would hold whole credibility/responsibility of above mentioned sample Source, location & address.

Prepared by	Muhammad Saffar (L.A)	Checked & Verified by	Dr. Ayesha Sumreen (R.O)
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WATER QUALITY ANALYSIS REPORT

Client Name & Address	Syed Fasih-ud-Din, Xen (M) Bahawalnagar Campus IUB Bahawalnagar		
Sample Collect By	Client	Reporting Date	12-09-2019
RWQL Sample Code	BWP/WQL/P/3839	Client Code	Turbine
Room Temperature °C	28.5 °C	Sample Receipt Date	02-09-2019

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits		Results
					(NSDWQ/ Pak EPA, 2010)	(WHO; 2004)	
1	Color	-	-	Sensory evaluation	Colorless	Colorless	Colorless
2	Electrical Conductivity	(µS/cm)	0.2875	APHA, 21 st Edition	NGVS	NGVS	407
3	pH	-	0.02	APHA, 21 st Edition	6.5-8.5	6.5-8.5	7.34
4	Alkalinity	ppm	-	APHA, 21 st Edition	NGVS	NGVS	2.3
5	Bicarbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	115
6	Calcium	ppm	2.0	APHA, 21 st Edition	NGVS	200	40
7	Carbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	Nil
8	Chloride	ppm	2.0	APHA, 21 st Edition	250	250	28.8
9	Hardness	ppm	5.0	APHA, 21 st Edition	500	500	130
10	Magnesium	ppm	1.0	APHA, 21 st Edition	NGVS	150	7.29
11	Potassium	ppm	0.2	APHA, 21 st Edition	NGVS	12	5.0
12	Sodium	ppm	1.0	APHA, 21 st Edition	NGVS	200	30
13	Sulfate	ppm	0.4	APHA, 21 st Edition	NGVS	250	40
14	Nitrate (N)	ppm	0.06	APHA, 21 st Edition	10	10	1.459
15	Turbidity	NTU	0.2	APHA, 21 st Edition	05	05	0.04
16	TDS	ppm	-	APHA, 21 st Edition	1000	1000	260
17	Arsenic	ppb	-	By kit (PCRWR)	50	10	10
18	Fluoride	ppm	0.03	APHA, 21 st Edition	1.5	1.5	0.49
19	Iron	ppm	0.03	APHA, 21 st Edition	NGVS	0.3	0.01
20	Total Coliform	CFU/ml	<2	3M Petrifilm Plates	-ve	-ve	08
21	Fecal Coli	CFU/ml	<2		-ve	-ve	-ve

1. D. No Guideline Value Set WHO: World Health Organization APHA: American Public Health Association, BDL: Below Detection Limit, Control, CSS: Customer Service Section, NSDWQ: National Standard for Drinking Water Quality, NEQS: National Environment Quality Standards

2. Pre	Water (Chemical)	Safe <input checked="" type="checkbox"/>	Unsafe <input type="checkbox"/>
3. Exe	Water (Microbiological)	Safe <input type="checkbox"/>	Unsafe <input checked="" type="checkbox"/>

& Conditions:

4. Uni

5. Assis

CC:

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Quality Parameters exceeding the WHO Drinking Water Guideline values (Guidelines for Drinking-Water third editions, 2004) National Environmental Quality Standards (1999) and Pakistan Standard Quality Control (PAKEPA, 2008) is highlighted.

Secret: Sample collected & submitted by client for analysis to PCRWR; client would hold whole credibility/responsibility mentioned sample Source, location & address.

Muhammad Saffar (L.A)

Checked & Verified by

Dr. Ayesha Sumreen (R.O)

Scanner
CamScanner

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WATER QUALITY ANALYSIS REPORT

Client Name & Address	Syed Fasih-ud-Din, Xen (M) Bahawalnagar Campus IUB Bahawalnagar		
Sample Collect By	Client	Reporting Date	12-09-2019
RWQL Sample Code	BWP/WQL/P/3840	Client Code	Ground Water Storage Tank
Room Temperature °C	28.5°C	Sample Receipt Date	02-09-2019

Sr. #	Water Quality Parameter	Units	Det. Limit	Reference Method	Permissible Limits		Results
					(NSDWQ/ Pak EPA, 2010)	(WHO; 2004)	
1	Color	-	-	Sensory evaluation	Colorless	Colorless	Colorless
2	Electrical Conductivity	(µS/cm)	0.2875	APHA, 21 st Edition	NGVS	NGVS	414
3	pH	-	0.02	APHA, 21 st Edition	6.5-8.5	6.5-8.5	7.55
4	Alkalinity	ppm	-	APHA, 21 st Edition	NGVS	NGVS	2.4
5	Bicarbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	120
6	Calcium	ppm	2.0	APHA, 21 st Edition	NGVS	200	48
7	Carbonate	ppm	5.0	APHA, 21 st Edition	NGVS	NGVS	Nil
8	Chloride	ppm	2.0	APHA, 21 st Edition	250	250	33.6
9	Hardness	ppm	5.0	APHA, 21 st Edition	500	500	150
10	Magnesium	ppm	1.0	APHA, 21 st Edition	NGVS	150	7.3
11	Potassium	ppm	0.2	APHA, 21 st Edition	NGVS	12	5.1
12	Sodium	ppm	1.0	APHA, 21 st Edition	NGVS	200	32
13	Sulfate	ppm	0.4	APHA, 21 st Edition	NGVS	250	41.77
14	Nitrate (N)	ppm	0.06	APHA, 21 st Edition	10	10	1.458
15	Turbidity	NTU	0.2	APHA, 21 st Edition	05	05	Nil
16	TDS	ppm	-	APHA, 21 st Edition	1000	1000	265
17	Arsenic	ppb	-	By kit (PCRWR)	50	10	05
18	Fluoride	ppm	0.03	APHA, 21 st Edition	1.5	1.5	0.37
19	Iron	ppm	0.03	APHA, 21 st Edition	NGVS	0.3	0.03
20	Total Coliform	CFU/ml	<2	3M Petrifilm Plates	-ve	-ve	19
21	E.Coli	CFU/ml	<2		-ve	-ve	-ve

NGVS: No Guideline Value Set WHO: World Health Organization APHA: American Public Health Association, BDL: Below Detection Limit, QC: Quality Control, CSS: Customer Service Section, NSDWQ: National Standard for Drinking Water Quality, NEQS: National Environment Quality Standards

Quality of Water (Chemical)	Safe <input checked="" type="checkbox"/>	Unsafe <input type="checkbox"/>
Quality of Water (Microbiological)	Safe <input type="checkbox"/>	Unsafe <input checked="" type="checkbox"/>

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Invitation for Proposal
for Providing and Fixing Water Filtration Facilities at All Campuses
of The Islamia University of Bahawalpur

1. The Islamia University of Bahawalpur (IUB) is a Public Sector University in Southern Punjab and is hub of educational facilities in the Bahawalpur Division. The Islamia University of Bahawalpur intends to install water filtration facilities for all of its academic blocks, hostels and staff residences located at its various campuses at Bahawalpur (three campuses), Bahawalnagar (two campuses) & Rahim Yar Khan (one campus). The purpose is to ensure the availability of clean drinking water as per Pakistan Standards to all the students and residents of Islamia University.
2. The Islamia University of Bahawalpur invites proposals from firms of national repute having vast experience in the field of design, construction, procurement, operation and maintenance of water filtration facilities for educational institutions in two stage two envelope procedure as per PPRA guidelines for the following project;

S#	Name of the Project	Budget Provision (Rs.)
01	Providing and Fixing Water Filtration Plants at all Campuses of The Islamia University of Bahawalpur	20 Million

3. Interested firms are invited to submit their technical and financial proposals with following information/ documents under two stage – two envelope procedure clearly marking separate envelopes as TECHNICAL PROPOSAL and FINANCIAL PROPOSAL. Technical proposal should be accompanied by the selection of filtration unit, its specifications, quality, and capacity with justification for each of the buildings at university campuses.
 - a) Certificate of registration with suitable bodies along with the latest renewal letter
 - b) Copy of registration with Securities & Exchange Commission of Pakistan or Registrar of Firms.
 - c) Copy of registration with income tax department/ sales tax department and proof of depositing tax for last 3 years.
 - d) List of permanent technical/ professional staff along with related experience
 - e) List of similar works designed and completed by the firm during last five (05) years
 - f) Detail of Equipment to be supplied/ installed with complete specification
 - g) Audited statements of accounts for the last three (3) years.
 - h) A certificate / affidavit that the firm is not blacklisted and have not indulged in any litigation with any Govt/ autonomous body.
4. Selection will be on the basis of least cost method. Financial proposal must be accompanied by 2% earnest money in the form of CDR, otherwise the proposal will not be entertained.
5. The firms' profiles/ proposals must reach the office of Project Director (Engineering), Directorate of Engineering, Baghdad-ul-Jadeed Campus, Islamia University, Bahawalpur by 2:00 PM, Monday, February 17, 2020 and will be open on 2:30 PM on same day.
6. Reference for Proposal (RFP) can be obtained from the office of Project Director (Engineering) during office hours. Sites can also be visited on working days. A pre-bid meeting will be held on 10th February to address any queries.
7. In case of closed/forced holiday tender opening time will be considered as next working day.
8. The Islamia University Bahawalpur may reject all proposals/ bids at any time prior to the acceptance of a proposal/ bid.



The Project Director
Baghdad-ul-Jadeed Campus
The Islamia University of Bahawalpur
Phno:062-9255455