

# RESULTS OF THE WATER QUALITY PARAMETERS OF THE INSTITUTE

**TABLE 1 - PUMPS**  
(SAMPLING DATE - 30/09/22)

Parameters	Permissible Limit	Maximum Limit	P3	P7	P8	P11	P12	P13	P14	P15	P16
pH	6.5 to 8.5	No relaxation	7.98	7.88	7.63	7.94	8.11	7.71	7.98	8.01	8.09
TDS (mg/l)	500	2000	448	644	782	675	400	581	659	717	414
Hardness (as CaCO <sub>3</sub> ) (mg/l)	200	600	110	100	170	120	90	110	120	150	100
Alkalinity(as CaCO <sub>3</sub> ) (mg/l)	200	600	360	280	300	270	300	320	280	290	320
Nitrate (mg/l)	45	No relaxation	0.011	0.08	0.06	0.09	0.07	0.06	0.09	0.12	0.07
Sulfate (mg/l)	200	400	28.54	37.07	49.65	35.94	32.21	25.71	28.42	31.95	25.41
Fluoride (mg/l)	1	1.5	0.713	0.524	0.491	0.615	0.688	0.592	0.498	0.511	0.671
Chloride (mg/l)	250	1000	110	275	300	290	90	195	285	325	100
Turbidity (NTU)	5	10	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Arsenic (mg/l)	0.01	0.05	0.0024	0.0019	0.0023	0.0025	0.0039	0.0029	0.0027	0.0026	0.0029
Copper (mg/l)	0.05	1.5	0.0023	0.0027	0.0017	0.0034	0.0019	0.0026	0.0021	0.0028	0.0025
Cadmium (mg/l)	0.003	No relaxation	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium (mg/l)	0.05	No relaxation	0.0006	0.0005	0.0012	0.0011	0.0013	0.0010	0.0012	0.0010	0.0013
Lead (mg/l)	0.01	No relaxation	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Iron (mg/l)	0.3	No relaxation	0.13	0.16	0.10	0.17	0.14	0.12	0.16	0.11	0.13
Zinc (mg/l)	5	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fecal Coliform (cfu)	0	0	0	0	0	0	0	0	0	0	0
E. Coli (cfu)	0	0	0	0	0	0	0	0	0	0	0

**Sampling Locations:** P3 - Behind Helicopter building,  
P7 - Near water tank and main entrance of VH-Extension , type-1,  
P8 - Near Health Centre,  
P11- Hall 10 back side,  
P12 - Near about 150 M of P-2 (end of lane-36),  
P13 - Near Visiting Faculty Apartment,  
P14 - Near Hall 12,  
P15 - Behind New Sac,  
P16 - Near duplex type-3

**BDL -Below Detection Limit; NTU - Nephelometric Turbidity Unit; cfu - Colony forming Units in 100 ml of the sample.**

**Detection Limits Pb 0.0001 mg/l, Cu 0.0001 mg/l, Cr 0.0005 mg/l, Fe 0.0001 mg/l, Cd 0.0004 mg/l, As 0.0001 mg/l, Zn 0.0005 mg/l.**







**TABLE 3 - SBRA, VH AND HC  
(SAMPLING DATE - 15/09/22)**

<b>Parameters</b>	<b>Old SBRA</b>	<b>New SBRA</b>	<b>HC</b>	<b>VH</b>
pH	7.52	8.11	8.02	7.61
TDS (mg/l)	403	766	674	19.4
Hardness (as CaCO <sub>3</sub> ) (mg/l)	40	160	140	20
Alkalinity(as CaCO <sub>3</sub> ) (mg/l)	170	290	300	30
Nitrate (mg/l)	0.07	0.09	0.05	0.02
Sulfate (mg/l)	34.10	45.47	48.94	10.52
Fluoride (mg/l)	0.408	0.623	0.705	0
Chloride (mg/l)	165	300	265	20
Turbidity (NTU)	0.001	0.001	0.001	0
Arsenic (mg/l)	0.0011	0.0015	0.0014	0.0001
Copper (mg/l)	0.0002	0.0001	0.0001	BDL
Cadmium (mg/l)	BDL	BDL	BDL	BDL
Chromium (mg/l)	BDL	BDL	BDL	BDL
Lead (mg/l)	BDL	BDL	BDL	BDL
Iron (mg/l)	0.0547	0.1277	0.1598	0.0049
Zinc (mg/l)	0.0374	0.0165	0.0324	0.0097
Fecal Coliform (cfu)	0	0	0	0
E. Coli (cfu)	0	0	0	0

**TABLE 4 - VARIOUS RESIDENTIAL LOCATIONS  
(SAMPLING DATE - 15/09/22)**

<b>Parameters</b>	<b>T1 (201)</b>	<b>T2 (205)</b>	<b>T3D (359)</b>	<b>T3F (328)</b>	<b>T4 (452)</b>	<b>T5 (502)</b>	<b>T6 (620)</b>	<b>Multistory Building-A (203)</b>	<b>Multistory Building-B (403)</b>	<b>Multistory Building-C (101)</b>	<b>Multistory Building-D (303)</b>
pH	8.28	8.38	8.39	8.41	8.45	8.46	8.36	8.14	8.16	8.44	8.45
TDS (mg/l)	643	465	401	506	736	688	405	767	762	776	779
Hardness (as CaCO <sub>3</sub> ) (mg/l)	110	80	60	100	160	140	60	150	140	180	170
Alkalinity(as CaCO <sub>3</sub> ) (mg/l)	280	340	340	350	320	320	370	260	250	320	300
Nitrate (mg/l)	0.19	0.16	0.11	0.14	0.17	0.12	0.17	0.09	0.08	0.08	0.09
Sulfate (mg/l)	36.84	40.10	22.01	30.84	46.31	58.63	35.26	57.05	54.63	56.21	58.01
Fluoride (mg/l)	0.719	0.989	0.991	0.990	0.716	0.798	0.982	0.727	0.727	0.778	0.786
Chloride (mg/l)	275	130	85	155	310	280	95	295	305	305	300
Turbidity (NTU)	0.001	0.001	0	0.001	0.001	0.001	0	0.001	0.001	0.002	0.001
Arsenic (mg/l)	0.0013	0.0011	0.0023	0.0012	0.0006	0.0008	0.0019	0.0014	0.0011	0.0011	0.0012
Copper (mg/l)	0.0003	0.0001	0.0001	0.0005	0.0003	0.0001	0.0003	0.0036	0.0023	0.0023	0.0024
Cadmium (mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium (mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Lead (mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Iron (mg/l)	0.0471	0.1256	0.0675	0.1316	0.0610	0.1147	0.1015	0.1496	0.1361	0.1323	0.1157
Zinc (mg/l)	0.0167	0.0490	0.0245	0.0444	0.0658	0.0925	0.0725	0.0122	0.0081	0.0318	0.0210
Fecal Coliform (cfu)	0	0	0	0	0	0	0	0	0	0	0
E. Coli (cfu)	0	0	0	0	0	0	0	0	0	0	0

*Sampling locations: H1 to RA various hostels,  
Old SBRA,  
New SBRA,  
VH- Visitors Hostel,  
HC- Health Centre,*

*T1 to T6 Residences with corresponding house numbers,  
Multistory Building A to D- New faculty buildings with corresponding house numbers.*

*BDL Below Detection Limit; NTU – Nephelometric Turbidity Unit; cfu- Colony forming Units in 100 ml of the sample.  
Detection Limits Pb 0.0001 mg/l, Cu 0.0001 mg/l , Cr 0.0005 mg/l ,Fe 0.0001 mg/l , Cd 0.0004 mg/l, As 0.0001 mg/l, Zn 0.0005 mg/l*