

ENVIRONMENTAL LABORATORY

WATER AND INDUSTRIAL EFFLUENTS

(Testing as per IS3025/APHA Standards)

S. No.	Nature of Test (Test Parameter)	Commonly Used Test Method	NITRA Charges (INR)
A.	Physical Properties		
1	Appearance	Visual	150.00
2	Color	Visual Comparison (Pt-Co Standard)	200.00
3	Odor	At 60°C	150.00
4	Turbidity	Nephelometric	200.00
5	pH Value	Electrometric	200.00
6	Conductivity	Lab. Method	200.00
7	Total Solids (TS)	Gravimetric 103-105°C	250.00
8	Total Dissolved Solid (TDS)	Gravimetric, 180°C	350.00
9	Total Suspended Solids (TSS) with/without TS/TDS	Calculation (TS – TDS = TSS)	600.00
10	Fixed Solids (FS)	Gravimetric, 550°C	450.00
11	Volatile Solids (VS) with/without TS/FS	Calculation (TS – FS = VS)	700.00
12	Settleable Solids	By volume	200.00
B.	Chemical Constituents		
1.	Organics		
1	Biochemical Oxygen Demand (BOD)	Winkler, Titrimetric 3 day, 27°C	750.00
2	Chemical Oxygen Demand (COD)	Open Reflux	600.00
3	Oil and Grease (O/G)	Partition-gravimetric	500.00
4	Organic Matter	KMnO ₄ , 4 hrs, 27°C	700.00
2.	Inorganics		
1	Acidity (Total)	Titrimetric	300.00
2	Alkalinity (Phenolphthalein)	Titrimetric	300.00
3	Alkalinity (Total M.O.)	Titrimetric	300.00
4	Ammonical Nitrogen	Titrimetric	700.00
5	Bicarbonates	Titrimetric	350.00
6	Boron	Colorimetric (Curcumine)	500.00
7	Carbonates	Titrimetric	400.00
8	Chlorides	Argentometric	300.00
9	Chlorine Residual	Iodometric	350.00
10	Dissolved Oxygen	Winkler Titrimetric, Azide modification	350.00
11	Fluoride	Colorimetric (SPADNS)	500.00
12	Hardness, Total (TH)	EDTA Titrimetric	300.00
13	Hardness, Calcium (Ca)	EDTA Titrimetric	300.00
14	Hardness, Magnesium (Mg) with/without TH/Ca	Calculation (TH – Ca = Mg)	600.00
15	Hardness, Temporary	Calculation from TH and Alkalinity	600.00
16	Hardness, Permanent	Calculation from TH and Alkalinity	600.00

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17	Nitrate Nitrogen	Colorimetric (Chromotropic A.)	500.00
18	Phosphate	Colorimetric (Stannous Chloride)	500.00
19	Silica	Colorimetric (Molybdosilicate)	500.00
20	Sulfate	Turbidimetric	500.00
21	Sulfide	Iodometric titration	350.00
22	Sulfite	Iodometric titration	400.00
23	Iron, Total (T.Fe)	Colorimetric (Phenanthroline)	600.00
3.	Metals		
1	Chromium (VI)	Colorimetric (Diphenylcarbazid)	600.00
2	Heavy metals: Cd, Co, Cu, Cr, Pb, Hg, Ni, Zn	Atomic Absorption	600.00 for each metal
3	Other Metals: Na, K, Mn, Fe	Atomic Absorption	600.00 for each metal
C.	Bacteriological Examination		
1	MPN Coliform per 100 ml	Multiple Tube Dilution (Presumptive Test)	700 .00

* The testing charges are same for members and non-member customers.

* Applicable GST Extra

Sample quantity for routine analysis: 2 liters in a white tightly stoppered can/bottle is sufficient for 10-15 parameters.

Notes

1. A minimum size of sample as given in the schedule is a must to ensure reliable and accurate test results.
2. Sample should be accompanied with a request letter containing parameters to be tested and advance payment in favor of NITRA, Ghaziabad.
3. The sample must be random and representative of the bulk.