

**Laboratory** Upper & Middle Ganga Water Quality Laboratory, Central Water Commission, Middle Ganga Division-3, Akashdeep, Pannalal Park, Varanasi, Uttar Pradesh

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** TC-7416

Page 1 of 2

**Validity** 22.06.2018 to 21.06.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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**CHEMICAL TESTING**

I.	WATER			
1.	River water	pH	APHA 23 <sup>rd</sup> Edn.2017 – 4500H <sup>+</sup> B (Electrometric Method)	2 to 12
		Conductivity	APHA 23 <sup>rd</sup> Edn.2017 –2510 B (Laboratory Method)	01 µS/cm to 5000 µS/cm
		Total Hardness as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edn.2017 – 2340 C (EDTA Titrimetric Method)	5 mg/L to 1500 mg/L
		Calcium as Ca	APHA 23 <sup>rd</sup> Edn.2017 – 3500Ca-B (EDTA Titrimetric Method)	2 mg/L to 500 mg/L
		Magnesium as Mg	APHA 23 <sup>rd</sup> Edn.2017 – 3500 Mg-B (By Calculation Method)	2 mg/L to 500 mg/L
		Total Alkalinity as CaCO <sub>3</sub>	APHA 23 <sup>rd</sup> Edn.2017 – 2320B (Titration Method)	1 mg/L to 2000 mg/L
		Chloride as Cl <sup>-</sup>	APHA 23 <sup>rd</sup> Edn.2017 – 4500 Cl <sup>-</sup> B (Argentometric Method)	1 mg/L to 2000 mg/L
		Biological Oxygen Demand (BOD)	APHA 23 <sup>rd</sup> Edn.2017– 5210 B (5 day BOD Test Method)	1.0 mg/L to 200 mg/L
		Dissolved Oxygen(DO)	APHA 23 <sup>rd</sup> Edn.2017 – 4500 O-C (Azide Modification Method)	0.2 mg/L to 10 mg/L
		Nitrate as NO <sub>3</sub> <sup>-</sup>	APHA 23 <sup>rd</sup> Edn.2017 – 4500 NO <sub>3</sub> <sup>-</sup> D (Nitrate Electrode method)	1.0 mg/L to 250 mg/L

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		Fluoride as F <sup>-</sup>	APHA 23 <sup>rd</sup> Edn.2017 – 4500 F C (Ion Selective Electrode Method)	0.1 mg/L to 20 mg/L
		Sulphate as SO <sub>4</sub> <sup>2-</sup>	APHA 23 <sup>rd</sup> Edn.2017 – 4500 SO <sub>4</sub> <sup>2-</sup> E (Turbidimetric Method)	1 mg/L to 500 mg/L
		Sodium as Na <sup>+</sup>	APHA 23 <sup>rd</sup> Edn.2017 – 3500 Na-B (Flame Emission Photometric Method)	1 mg/L to 200 mg/L
		Potassium as K <sup>+</sup>	APHA 23 <sup>rd</sup> Edn.2017 – 3500 K-D (Flame Emission Photometric Method)	1 mg/L to 200 mg/L