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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	WATER			
1.	Water (Surface Water /Ground	Ammonia Nitrogen as NH ₃ -N	APHA (22 nd Edition) 4500 – NH ₃ /C	1 mg/L to 10 mg/L
	Water)	Calcium as Ca ⁺²	IS 3025 (Part 40): 1991 (RA 2003)	10 mg/L to $200 mg/L$
		Chlorides as Cl	IS 3025 (Part 32): 1988 (RA 2003)	50 mg/L to $500 mg/L$
		Chromium as Cr ⁶⁺	IS 3025 (Part 52): 2003 APHA (22 nd Edition) 3500 - Cr+6/B	0.1 mg/L to 2 mg/L
		Dissolved Oxygen	IS 3025 (Part 38): 1989 (RA 2009)	0.5 mg/L to $5 mg/L$
		Electrical Conductivity @ 25 °C	IS 3025 (Part 14): 1984 (RA 2006)	1 μS/cm to 1999 μS/cm
		Iron as Fe	IS 3025 (Part 53): 2003 APHA (22 nd Edition) 3500 – Fe/B	0.1 mg/L to $1 mg/L$
		Manganese as Mn	IS 3025 (Part 59): 2006 (RA 2012) APHA (22 nd Edition) 3500 – Mn/B	0.1 mg/L to 5 mg/L
		Magnesium as Mg	IS 3025 (Part 46): 1994 (RA 2009)	0.8 mg/L to $100 mg/L$
		Nitrate Nitrogen as NO ₃ -N	IS 3025 (Part 34): 1988 (RA 2009)	10 mg/L to $400 mg/L$
		Nitrite as NO ₂ -2	IS 3025 (Part 34): 1988 (RA 2009)	0.5 mg/L to 50 mg/L
		pH Value at 25°C	IS 3025 (Part 11): 1983 (RA 2006)	1 to 14
		Phosphate as PO ₄	APHA (22 nd Edition) 4500 – P/C	0.1 mg/L to 5.0 mg/L
		Potassium (K ⁺)	IS 3025 (Part 45): 1993 (RA 2009) APHA (22 nd Edition) 3500 - K/B	2 mg/L to 100 mg/L

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	Water (Surface	Phenolic compounds as C ₆ H ₅ OH	APHA (22 nd Edition) 5530 – Phenols/D	2 mg/L to 10 mg/L
	Water /Ground Water)	Residual, free chlorine	IS 3025 (Part 26): 1986 (RA 2009) APHA (22 nd Edition) 4500 – Cl ⁻ /B	0.1 mg/L to 1 mg/L
		Sodium (Na ⁺)	IS 3025 (Part 45): 1993 (RA 2009) APHA (22 nd Edition) 3500 – Na/B	10 mg/L to 1000 mg/L
		Sulphate as SO ₄ ⁻²	APHA (22 nd Edition) 4500 – SO ₄ - ² /E, APHA (22 nd Edition) 4500 – SO ₄ - ² /D	50 mg/L to 500 mg/L
		Sulfide as S ⁻²	IS 3025 (Part 29): 1986 (RA 2009) APHA (22 nd Edition) 4500 – S ⁻² /F	2 mg/L to 10 mg/L
		Taste	IS 3025 (Part 8): 1984 (R 2006)	Agreeable/ Disagreeable
		Temperature	IS 3025 (Part 9): 1984 (RA 2006) APHA (22 nd Edition) 2550 – B	1 °C to 100 °C
		Total Alkalinity, Max.(Phenolphthalein & methyl orange method)	IS 3025 (Part 23): 1986 (RA 2009)	100 mg/L to 500 mg/L
		Total Dissolved solids	IS 3025 (Part 16): 1984 (RA 2006)	4 mg/L to 500 mg/L
		Total Hardness (as CaCO ₃)	IS 3025 (Part 21): 2009	100 mg/L to 500 mg/L
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 2006)	5 mg/L to $500 mg/L$
		Total Solids	APHA (22 nd Edition) 2540 – B	5 mg/L to 5000 mg/L
		Turbidity NTU	IS 3025 (Part 10): 1984 (RA 2002)	1 NTU to 1000 NTU

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
2.	Wastewater/ Sewage Water	Ammonia Nitrogen as NH ₃ -N	APHA (22 nd Edition) 4500 – NH ₃ /C	1.0 mg/L to 100 mg/L
		BOD at 27° C (3 Days)	IS 3025 (Part 44): 1993 (RA 2009)	0.5 mg/L to $100 mg/L$
		Chlorides as Cl-	IS 3025(Part 32): 1988 (RA 2003)	50 mg/L to 5000 mg/L
		Chromium as Cr ⁶⁺	IS 3025 (Part 52): 2003 (RA 2009) APHA (22 nd Edition) 3500 – Cr ⁺⁶ /B	0.1 mg/L to 2 mg/L
		COD	APHA (22 nd Edition) 5220 – B	10 mg/L to 10000 mg/L
		Dissolved Oxygen	IS 3025 (Part 38): 1989	0.5 mg/L to $5 mg/L$
		Electrical Conductivity @25°C	IS 3025 (Part 14): 1984 (RA 2006)	1 mS/cm to 1999 mS/cm
		Iron as Fe	IS 3025 (P-53): 2003 APHA (22 nd Edition) 3500 – Fe/B	1 mg/L to 1 mg/L
		Manganese as Mn	IS 3025 (Part 59): 2006 (RA 2012) APHA (22 nd Edition) 3500 – Mn/B	0.1 mg/L to $5 mg/L$
		Magnesium as Mg ⁺²	IS 3025 (Part 46): 1994 (RA 2009)	0.8 mg/L to 100 mg/L
		Nitrate Nitrogen as NO ₃ -N	IS 3025 (Part 34): 1988 (RA 2009)	5 mg/L to 100 mg/L
		Nitrite as NO ⁻ 2	IS 3025 (P - 34): 1988 (RA 2009)	0.5 mg/L to $50 mg/L$
		Oil and Grease	IS 3025 (Part 39): 1991 (RA 2009)	4 mg/L to 100 mg/L
		pH Value at 25 °C	IS 3025 (Part 11): 1983 (RA 2006)	1 to 14

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Wastewater/ Sewage Water	Phosphate as PO ₄	APHA (22 nd Edition) 4500 – P/C	0.1 mg/L to $5.0 mg/L$
		Potassium (K ⁺)	IS 3025 (Part 45): 1993 (RA 2009) APHA (22 nd Edition) 3500 – K/B	2 mg/L to 100 mg/L
		Residual, free Chlorine	IS 3025 (Part 26): 1986 (RA 2009) APHA (22 nd Edition) 4500 – Cl ⁻ /B	0.1 mg/L to $1 mg/L$
		Sodium (Na ⁺)	IS 3025 (Part 45): 1993 (RA 2009) APHA (22 nd Edition) 3500 – Na/B	10 mg/L to 1000 mg/L
		Sulphate as SO ₄ ⁻²	APHA (22^{nd} Edition) $4500 - SO_4^{-2}/E$, APHA (22^{nd} Edition) $4500 - SO_4^{-2}/D$	50 mg/L to 500 mg/L
		Sulfide as S ⁻²	IS 3025 (Part 29): 1986 (RA 2009) APHA (22 nd Edition) 4500 – S ⁻² /F	0.5 mg/L to 10.0mg/L
		Temperature	IS 3025 (Part 9): 1984 (RA 2006), APHA (22 nd Edition) 2550 – B	1 °C to 100 °C
		Total Alkalinity (Phenolphthalein & methyl orange method)	IS 3025 (Part 23): 1986 (RA 2009)	100 mg/L to 500 mg/L
		Total Dissolved solids	IS 3025 (Part 16): 1984 (RA 2006)	4 mg/L to 500 mg/L
		Total Settleable Matter	IS 3025 (Part 19): 1984 (RA 2006)	100 mg/L to 1000 mg/L
		Total Suspended Solids Total Solids Turbidity as NTU	IS 3025 (Part 17): 1984 (RA 2006) APHA (22 nd Edition) 2540 – B IS 3025 (Part 10): 1984 (RA 2002)	5 mg/L to 500 mg/L 4 mg/L to 500 mg/L 1 NTU to 1000 NTU

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II.	AIR, GASES & AT	TMOSPHERE		
1.	Ambient Air	PM_{10}	IS 5182 (Part 23): 2006 (RA 2012) US-EPAMETHOD	$1~\mu g/m^3$ to $1000~\mu g/m^3$
		PM _{2.5}	As per Lab SOP 01, 01.04.2012 - PM _{2.5} based on USEPA and CPCB Guideline, 2012	$0.1 \ \mu g/m^3 \text{ to } 500 \ \mu g/m^3$
		NO_X	IS 5182 (Part 6): 2006 (RA 2012)	$20~\mu g/m^3$ to $740~\mu g/m^3$
		SO_2	IS 5182 (Part 2): 2001 (RA 2012)	25 $\mu g/m^3$ to 1050 $\mu g/m^3$
2.	Stack Emissions	NO_X	IS 11255 (Part 7): 2005 (RA 2012)	$2 \text{ mg/Nm}^3 \text{ to}$ 400 mg/Nm^3
		SO_2	IS 11255 (Part 2): 1985 (RA 2009)	$3 \text{ mg/Nm}^3 \text{ to}$ 150 mg/Nm^3
		PM	IS 11255 (Part 1): 1985 (RA 2009)	$5 \text{ mg/Nm}^3 \text{ to}$ 1000 mg/Nm^3