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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.	Ground Water, Drinking Water & Surface Water	Colour	IS 3025 (Part 4): 1983 (RA 2002) Platinum Cobalt Visible Comparison Method	2 to 25 Hazen Units 25 to 60 Hazen Units 60 to 100 Hazen Units
			AHPA 22 nd Edition 2012, 2120 B	
		Odour	IS 3025 (Part 5): 1983 (RA 2002)	Agreeable / Disagreeable
		Turbidity	IS 3025 (Part 10): 1984 (RA 2002) APHA 22 nd Edition 2012, 2130 B	1 to 10 NTU 10 to 100 NTU 100 to 400 NTU
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006) at 105 °C	10 mg/L to 5000 mg/L 5000 mg/L to 13000 mg/L 13000 mg/L to 20000 mg/L
		pH	IS 3025 (Part 11): 1983 (RA 2002)	2 to 12
			APHA 22 nd Edition 2012, 4500- H+ B	
		Conductivity	IS 3025 (Part 14): 1984 (RA 2002)	2 μS/cm to 5000 μS/cm 5000 μS/cm to 13000 μS/cr 13000 μS/cm to 20000 μS/c
			2510 B, APHA 22 nd Edition 2012,	
		Iron as Fe	IS 3025 (Part 53): 2003 (RA 2009) 1 to 10 Phenanthroline	0.01 mg/L to 0.10 mg/L 0.10 mg/L to 1.0 mg/L 1.0 mg/L to 10 mg/L
			APHA 22 nd Edition 2012, 3500- Fe, B,	

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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
	Ground Water, Drinking Water & Surface Water	Nitrate as NO ₃	APHA 22 nd Edition 2012, 4500-NO ₃ B,	0.1 mg/L to 10 mg/L 10 mg/L to 25 mg/L 25 mg/L to 50 mg/L
		Nitrite as NO ₂	IS 3025 (Part 34): 1988 (RA 2003) – Nitrite, Nitrogen	0.01 mg/L to 0.1 mg/L 0.1 mg/L to 1.0 mg/ L 1.0 mg/L to 5 mg/L
			APHA 22 nd Edition 2012, 4500-NO ₂ B	
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2003) – Argentometric Method	2 mg/L to 500 mg/L 500 mg/L to 1000 mg/L 1000 mg/L to 2000 mg/L
			APHA 22 nd Edition 2012, 4500-Cl- B	
		Fluoride as F	APHA 22 nd Edition 2012, 4500-F ⁻ D	0.1 mg/L to 1.0 mg/L 1.0 mg/L to 5.0 mg/L
		Sulphate as SO ₄	IS 3025 (Part 24): 1986 (RA 1992) – Turbidity Method	4 mg/L to 100 mg/L 100 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
		Total Alkalinity (P-Alkalinity & M-Alkalinity) as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003) – Indicator Method	2 to 250 mg/L 250 to 500 mg/L 500 to 1000 mg/L
			APHA 22 nd Edition 2012, 2320 B	
		Calcium as Ca	IS 3025 (Part 40): 1991 (RA 2003) – EDTA Titration Method	1 to 250 mg/L 250 to 500 mg/L 500 to 1000 mg/L
			APHA 22 nd Edition 2012, 3500-Ca B	

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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
	Ground Water, Drinking Water & Surface Water	Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009	5 mg/L to 250 mg/L 250 mg/L to 500 mg/L 500 mg/L to 2000 mg/L
			APHA 22 nd Edition 2012, 2340 C	
		Magnesium as Mg	IS 3025 (Part 46): 1994 (RA 2003) – Volumetric Method using EDTA	1 mg/L to 100 mg/L 100 mg/L to 200 mg/L 200 mg/L to 400 mg/L
			APHA 22 nd Edition 2012, 3500-Mg B,	
		Sodium as Na	IS 3025 (Part 45): 1993 (RA 2003) – Flame Photometry Method	1 mg/L to 10 mg/L 10 mg/L to 100 mg/L 100 mg/L to 400 mg/L
			APHA 22 nd Edition 2012, 3500- Na B	
		Potassium as K	IS 3025 (Part 45): 1993 (RA 2003) – Flame Photometry Method	1 mg/L to 10 mg/L 10 mg/L to 100 mg/L 100 mg/L to 400 mg/L
			APHA 22 nd Edition 2012, 3500- Na B	
		Residual free chlorine	IS 3025 (Part 26): 1986 (RA 2003) – Iodometric Method and Stabilised Neutral Ortho Toluidine Method	0.1 mg/L to 5.0 mg/L
			APHA 22 nd Edition 2012, 4500-Cl B	

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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
	Ground Water, Drinking Water & Surface Water	Boron as B	IS 13428: 2005 (RA 2009) Annex-H 4500-B, B, Curcumin Method, APHA 22 nd Edition	0.1 mg/L to 1.0 mg/L 1.0 mg/L to 5.0 mg/L
2.	Irrigation Water & Industrial Water	Colour	IS 3025 (Part 4): 1983 (RA 2002) Platinum Cobalt Visible Comparison Method	2 to 25 Hazen Units 25 to 60 Hazen Units 60 to 100 Hazen Units
			AHPA 22 nd Edition 2012, 2120 B	
		Odour	IS 3025 (Part 5): 1983 (RA 2002)	Agreeable /Disagreeable
		Turbidity	IS 3025 (Part 10): 1984 (RA 2002)	1 NTU to 10 NTU 10 NTU to 100 NTU 100 NTU to 400 NTU
			APHA 22 nd Edition 2012, 2130 B	
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006) at 105 °C	100 mg/L to 5000 mg/L 5000 mg/L to 13000 mg/L 13000 mg/L to 20000 mg/I
		рН	IS 3025 (Part 11): 1983 (RA 2002)	2 to 12
			APHA 22 nd Edition 2012, 4500- H+ B,	
		Conductivity	IS 3025 (Part 14): 1984 (RA 2002)	100 μS/cm to 5000 μS/cm 5000 μS/cm to 13000 μS/c 13000 μS/cm to 20000 μS/
			APHA 22 nd Edition 2012, 2510 B	

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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
	Irrigation Water & Industrial Water	Iron as Fe	IS 3025 (Part 53): 2003 (RA 2009) 1 to 10 Phenanthroline	0.05 mg/L to 1.0 mg/L 1.0 mg/L to 10 mg/L
			APHA 22 nd Edition 2012, 3500-Fe, B	
		Nitrate as NO ₃	APHA 22nd Edition 2012, 4500-NO ₃ B	0.1 mg/L to 10 mg/L 10 mg/L to 25 mg/L 25 mg/L to 50 mg/L
		Nitrite as NO ₂	IS 3025 (Part 34): 1988 (RA 2003) – Nitrite, Nitrogen	0.01 mg/L to 0.1 mg/L 0.1 mg/L to 1.0 mg/ L 1.0 mg/L to 5 mg/L
			APHA 22nd Edition 2012, 4500-NO ₂ B	
		Fluoride as F	APHA 22nd Edition 2012, 4500-F D	0.1 mg/L to 1.0 mg/L 1.0 mg/L to 5.0 mg/L
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2003) – Argentometric Method	50 mg/L to 500 mg/L 500 mg/L to 1000 mg/L 1000 mg/L to 2000 mg/s
			4500-Cl- B, APHA 22 nd Edition 2012	
		Sulphate as SO ₄	IS 3025 (Part 24): 1986 (RA 1992) – Turbidity Method	4 mg/L to 100 mg/L 100 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
		Total Alkalinity (P-Alkalinity & M-Alkalinity) as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003) – Indicator Method	5 mg/L to 250 mg/L 250 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
			APHA 22 nd Edition 2012, 2320 B	

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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
	Irrigation Water & Industrial Water	Calcium as Ca	IS 3025 (Part 40): 1991 (RA 2003) – EDTA Titration Method	1 mg/L to 250 mg/L 250 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
			APHA 22 nd Edition 2012, 3500-Ca B	
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009	50 mg/L to 250 mg/L 250 mg/L to 500 mg/L 500 mg/L to 2000 mg/L
			APHA 22 nd Edition 2012, 2340 C	
		Magnesium as Mg	IS 3025 (Part 46): 1994 (RA 2003) – Volumetric Method using EDTA	1 mg/L to 100 mg/L 100 mg/L to 200 mg/L 200 mg/L to 400 mg/L
			APHA 22 nd Edition 2012, 3500-Mg B	
		Sodium as Na	IS 3025 (Part 45): 1993 (RA 2003) – Flame Photometry Method	10 mg/L to 100 mg/L 100 mg/L to 400 mg/L
			APHA 22 nd Edition 2012, 3500- Na B	
		Potassium as K	IS 3025 (Part 45): 1993 (RA 2003) – Flame Photometry Method	1 mg/L to 10 mg/L 10 mg/L to 100 mg/L 100 mg/L to 400 mg/L
			APHA 22 nd Edition 2012, 3500-Na B	
		Residual free chlorine	IS 3025 (Part 26): 1986 (RA 2003) – Iodometric Method and Stabilised Neutral Ortho Toluidine Method	0.1 mg/L to 5.0 mg/L
			APHA 22nd Edition 2012, 4500-Cl B	

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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
	Irrigation Water & Industrial Water	Boron as B	IS 13428: 2005 (RA 2009) Annex-H	0.1 mg/L to 1.0 mg/L 1.0 mg/L to 5.0 mg/L
			4500-B, B, Curcumin Method, APHA 22 nd Edition	
3.	Construction Water	Odour	IS 3025 (Part 5): 1983 (RA 2002)	Agreeable/ Disagreeable
		pH	IS 3025 (Part 11): 1983 (RA 2002)	2 to 12
			APHA 22nd Edition 2012, 4500- H+ B	
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006) at 105 °C	10 mg/L to 5000 mg/L 5000 mg/L to 13000 mg/L 13000 mg/L to 20000 mg/I
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 1996)	10 mg/L to 100 mg/L 100 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
			2540 D, APHA 22 nd Edition 2012	
		MLVSS	IS 3025 (Part 18): 1984 (RA 2002)	10 mg/L to 250 mg/L 250 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
			2540 E, APHA 22nd Edition 2012	300 Hig/L to 1000 Hig/L
		Total Alkalinity (P-Alkalinity & M-Alkalinity) as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003) – Indicator Method	2 mg/L to 250 mg/L 250 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
			APHA 22 nd Edition 2012, 2320 B	

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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
	Construction Water	Iron as Fe	IS 3025 (Part 53): 2003 (RA 2009) 1 to 10 Phenanthroline	0.01 mg/L to 0.10 mg/L 0.10 mg/L to 1.0 mg/L 1.0 mg/L to10 mg/L
			APHA 22 nd Edition 2012, 3500-Fe, B	
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2003) – Argentometric Method	2 mg/L to 500 mg/L 500 mg/L to 1000 mg/L 1000 mg/L to 2000 mg/L
			APHA 22 nd Edition 2012, 4500-Cl- B	
		Sulphate as SO ₄	IS 3025 (Part 24): 1986 (RA 1992) – Turbidity Method	4 mg/L to 100 mg/L 100 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
4.	Waste Water, ETP Water, STP Water	Colour	IS 3025 (Part 4): 1983 (RA 2002) Platinum Cobalt Visible Comparison Method	Hue (400 nm to 700 nm)
			AHPA 22 nd Edition 2012, 2120 B	
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006) at 105 °C	10 mg/L to 5000 mg/L 5000 mg/L to 13000 mg/L 13000 mg/L to 20000 mg/
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 1996)	10 mg/L to 100 mg/L 100 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
			APHA 22 nd Edition 2012, 2540 D	

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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
	Waste Water, ETP Water, STP Water	Temperature	APHA 22 nd Edition 2012, 2550 B	20 °C to 30 °C 31 °C to 60 °C
		Hexavalent Chromium as Cr ⁶⁺	IS 3025 (Part 52): 2003	0.01 mg/L to $2 mg/L$
			APHA 22 nd Edition 2012, 3500-Cr B	
		Residual Free Chlorine	IS 3025 (Part 26): 1986 (RA 2003) -Stabilised Neutral Ortho Toluidine Method	0.1 mg/L to 2.0 mg/L
			APHA 22 nd Edition 2012, 4500-Cl B	
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2003) – Argentometric Method	10 mg/L to 500 mg/L 500 mg/L to 1000 mg/L 1000 mg/L to 5000 mg/L
			APHA 22 nd Edition 2012, 4500- Cl- B&C	
		Sulphide as S ² -	D- APHA 22 nd Edition 2012, 4500-S2- Methylene Blue Method	0.1 mg/L to 5.0 mg/L 5.0 mg/L to 25 mg/L 25 mg/L to 50 mg/L
		pH	IS 3025 (Part 11): 1983 (RA 2002)	1 to 14
			APHA 22nd Edition 2012, 4500- H+ B	
		Ammonical Nitrogen as N	IS 3025 (Part 34): 1988 (RA 2003) – Titrimetric Method	0.1 mg/L to 10 mg/L 10 mg/L to 25 mg/L 25 mg/L to 50 mg/L
			APHA 22 nd Edition 2012, 4500-NH3 C	

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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
	Waste Water, ETP Water, STP Water	Total Kjeldahl Nitrogen as N	IS 3025 (Part 34): 1988 (RA 2003) – Macro Kjeldahl Method	0.1 mg/L to 50 mg/L 50 mg/L to 250 mg/L 250 mg/L to 500 mg/L
			APHA 22 nd Edition 2012, 4500-N(org) B	
		Free Ammonia as NH ₃	IS 3025 (Part 34): 1988 (RA 2003) – Titrimetric Method	0.1 mg/L to 5.0 mg/L 5.0 mg/L to 25 mg/L
			APHA 22 nd Edition 2012, 4500-NH ₃ C	
		Phosphorous as P	IS 3025 (Part 31): 1988 (RA 2003) – Ascorbic Method	0.1 mg/L to 10 mg/L 10 mg/L to 50 mg/L 50 mg/L to 100 mg/L
			APHA 22 nd Edition 2012, 4500-P D & E	
		MLVSS	IS 3025 (Part 18): 1984 (RA 2002)	10 mg/L to 250 mg/L 250 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
			APHA 22 nd Edition 2012, 2540 E	
		Nitrate as NO ₃	APHA 22 nd Edition 2012, 4500-NO ₃ B	0.1 mg/L to 10 mg/L 10 mg/L to 25 mg/L 25 mg/L to 100 mg/L
		Silica as SiO ₂	IS 3025 (Part 35): 1988 – Molybdo Silicate Method	0.1 mg/L to 10 mg/L 10 mg/L to 30 mg/L 30 mg/L to 60 mg/L
			APHA 22 nd Edition 2012, 4500 SiO ₂ C	

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	Waste Water, ETP Water, STP Water	Sulphate as SO ₄	IS 3025 (Part 24): 1986 (RA 1992) – Turbidity Method	5 mg/L to 250 mg/L 250 mg/L to 2000 mg/L 2000 mg/L to 5000 mg/L
		Biochemical Oxygen Demand (BOD ₃)	IS 3025 (Part 44): 1993 (RA 2003)	2 mg/L to 100 mg/L 100 mg/L to 1000 mg/L 1000 mg/L to 2000 mg/L
		Chemical Oxygen Demand (COD)	IS 3025 (Part 58): 2006	4 mg/L to 500 mg/L 500 mg/L to 2000 mg/L 2000 mg/L to 6000 mg/L
			APHA 22 nd Edition 2012, 5220 B	
		Oil and Grease	IS 3025 (Part 39): 1991 (RA 2003) – Partition Gravimetric Method	1 mg/L to 100 mg/L 100 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
			APHA 22 nd Edition 2012, 5520 B	
II.	POLLUTION & EN	VIRONMENT		
1.	Liquid Effluents, Effluents	Colour	IS 3025 (Part 4): 1983 (RA 2002) Platinum Cobalt Visible Comparison Method	Hue (400 nm to 700 nm)
			AHPA 22 nd Edition 2012, 2120 B	
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006) at 105 °C	10 mg/L to 5000 mg/L 5000 mg/L to 13000 mg/L 13000 mg/L to 20000 mg/L
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 1996)	10 mg/L to 100 mg/L 100 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
			APHA 22 nd Edition 2012, 2540 D	

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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
	Liquid Effluents, Effluents	Temperature	APHA 22 nd Edition 2012, 2550 B	20 °C to 30 °C 31 °C to 60 °C
		Hexavalent Chromium as Cr ⁶⁺	IS 3025 (Part 52): 2003	0.01 mg/L to $2 mg/L$
			APHA 22 nd Edition 2012, 3500-Cr B	
		Residual Free Chlorine	IS 3025 (Part 26): 1986 (RA 2003) –Stabilised Neutral Ortho Toluidine Method	0.1 mg/L to 2.0 mg/L
			APHA 22 nd Edition 2012, 4500-Cl B	
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2003) – Argentometric Method	10 mg/L to 500 mg/L 500 mg/L to 1000 mg/L 1000 mg/L to 5000 mg/L
			APHA 22 nd Edition 2012, 4500-Cl- B&C	
		Sulphide as S ²⁻	D- APHA 22 nd Edition 2012, 4500-S2- Methylene Blue Method	0.1 mg/L to 5.0 mg/L 5.0 mg/L to 25 mg/L 25 mg/L to 50 mg/L
		pН	IS 3025 (Part 11): 1983 (RA 2002)	1 to 14
			APHA 22nd Edition 2012, 4500- H+ B	
		Ammonical Nitrogen as N	IS 3025 (Part 34): 1988 (RA 2003) – Titrimetric Method	0.1 mg/L to 10 mg/L 10 mg/L to 25 mg/L 25 mg/L to 50 mg/L
			APHA 22 nd Edition 2012, 4500-NH3 C	

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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
	Liquid Effluents, Effluents	Total Kjeldahl Nitrogen as N	IS 3025 (Part 34): 1988 (RA 2003) – Macro Kjeldahl Method	0.1 mg/L to 50 mg/L 50 mg/L to 250 mg/L 250 mg/L to 500 mg/L
		Free Ammonia as NH ₃	APHA 22 nd Edition 2012, 4500- N(org) B IS 3025 (Part 34): 1988 (RA 2003) – Titrimetric Method	0.1 mg/L to 5.0 mg/L 5.0 mg/L to 25 mg/L
			APHA 22 nd Edition 2012, 4500-NH ₃ C	
		Phosphorous as P	IS 3025 (Part 31): 1988 (RA 2003) – Ascorbic Method	0.1 mg/L to 10 mg/L 10 mg/L to 50 mg/L 50 mg/L to 100 mg/L
			APHA 22 nd Edition 2012, 4500-P D & E	
		MLVSS	IS 3025 (Part 18): 1984 (RA 2002)	10 mg/L to 250 mg/L 250 mg/L to 500 mg/L 500 mg/L to 1000 mg/L
			APHA 22 nd Edition 2012, 2540 E	
		Nitrate as NO ₃	APHA 22 nd Edition 2012, 4500-NO ₃ B	0.1 mg/L to 10 mg/L 10 mg/L to 25 mg/L 25 mg/L to 100 mg/L
		Silica as SiO ₂	IS 3025 (Part 35): 1988 – Molybdo Silicate Method	0.1 mg/L to 10 mg/L 10 mg/L to 30 mg/L 30 mg/L to 60 mg/L
			APHA 22 nd Edition 2012, 4500 SiO ₂ C	

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	Liquid Effluents, Effluents	Sulphate as SO ₄	IS 3025 (Part 24): 1986 (RA 1992) – Turbidity Method	5 mg/L to 250 mg/L 250 mg/L to 2000 mg/L 2000 mg/L to 5000 mg/L	
		Biochemical Oxygen Demand (BOD ₃)	IS 3025 (Part 44): 1993 (RA 2003)	2 mg/L to 100 mg/L 100 mg/L to 1000 mg/L 1000 mg/L to 2000 mg/L	
		Chemical Oxygen Demand (COD)	IS 3025 (Part 58): 2006	4 mg/L to 500 mg/L 500 mg/L to 2000 mg/L 2000 mg/L to 6000 mg/L	
			APHA 22 nd Edition 2012, 5220 B		
		Oil and Grease	IS 3025 (Part 39): 1991 (RA 2003) – Partition Gravimetric Method	1 mg/L to 100 mg/L 100 mg/L to 500 mg/L 500 mg/L to 1000 mg/L	
			APHA 22 nd Edition 2012, 5520 B		
2.	Noise Level Monitoring	Sound Level	IS 9989: 1981 (RA 2008)	40 dB(A) to 110 dB(A)	
III.	BUILDING MATERIALS				
1.	Soil	pH	9045 D, EPA SW-846 FAO Method, 2007- 6.2.2 –Page No.41 BSET/SOP/SS-06, pH.	1 to 14	
		Conductivity	9050 A, EPA SW-846 FAO Method, 2007- 6.3.1 –Page No.43 BSET/SOP/SS-04, Conductivity.	2 μS/cm to 500 μS/cm 500 μS/cm to 5000 μS/cm 5000 μS/cm to 10000 μS/c	

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	Soil	Moisture	FAO Method, 2007 –Moisture, Page No.23 BSET/SOP/SS-05, Moisture at 100 °C	5 % to 50 %
		Loss on Ingnition	FAO Method, 2007 (Page No. 84) at 550 °C BSET/SOP/SS-07, LOI at 400 °C	0.5 % to 50 %
		Available Sodium as Na	FAO Method, 2007 for Na- 13.1 – Page No.77 BSET/SOP/SS-08, Sodium	2 mg/Kg to 100 mg/Kg 100 mg/Kg to 500 mg/Kg 500 mg/Kg to 1000 mg/Kg
		Available Potassium as K	FAO Method, 2007 for K -13.1 – Page No.77 BSET/SOP/SS-09 Potassium	2 mg/Kg to 100 mg/Kg 100 mg/Kg to 500 mg/Kg 500 mg/Kg to 1000 mg/Kg
		Available Calcium as Ca	FAO Method, 2007 for Ca – 6.3.3 (Page No-44)2007 BSET/SOP/SS-01, Calcium	2 mg/Kg to 100 mg/Kg 100 mg/Kg to 500 mg/Kg 500 mg/Kg to 1000 mg/Kg
		Available Magnesium as Mg	FAO Method, 2007 for Mg – 6.3.3 (Page No-44) BSET/SOP/SS-02, Magnesium	1 mg/Kg to 100 mg/Kg 100 mg/Kg to 500 mg/Kg 500 mg/Kg to 1000 mg/Kg
		Available Nitrogen as N	FAO Method, 2007-11.1: Total Nitrogen (Kjeldahl Method)–Page No.64 BSET/SOP/SS-13, Available Nitrogen as N	1 mg/Kg to 100 mg/Kg 100 mg/Kg to 500 mg/Kg 500 mg/Kg to 1000 mg/Kg

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	Soil	Available Phosphorous as PO ₄	FAO Method, 2007: Available Phosphorus (Olsen's Method)12.6 -Page No.75 BSET/SOP/SS-10-Bray's method and BSET/SOP/SS-11-Olsen's method for Available Phosphorous	0.5 mg/Kg to 10 mg/Kg 10 mg/Kg to 250 mg/Kg 250 mg/Kg to 1000 mg/Kg
		Available Chloride as Cl	9253, EPA SW-846 FAO Method, 2007: 6.3.5 Chloride (Page No.48) BSET/SOP/SS-03, Chloride as Cl	5 mg/Kg to 100 mg/Kg 100 mg/Kg to 500 mg/Kg 500 mg/Kg to 1000 mg/Kg
		Available Sulphate as SO ₄	FAO Methods, 2007: Sulphate (Page No.80) BSET/SOP/SS-15, Available Suphur (SO ₄ -S)	1 mg/Kg to 100 mg/Kg 100 mg/Kg to 500 mg/Kg 500 mg/Kg to 1000 mg/Kg
		Oil & Grease	3540 C, EPA SW-846 and 9170 B, EPA method	1 mg/Kg to 100 mg/Kg 100 mg/Kg to 500 mg/Kg 500 mg/Kg to 1000 mg/Kg
		Hexavalent chromium as Cr6+	7196 A, EPA SW-846 and 3060 A EPA Method	0.1 mg/Kg to 10 mg/Kg 10 mg/Kg to 250 mg/Kg 250 mg/Kg to 1000 mg/Kg
		Total Organic Matter	BSET/SOP/SS-14, Total Organic Matter.	0 to 100 %
IV.	AIR, GASES & AT	MOSPHERE		
1.	Source / Stack Emissions Monitoring	Particulate Matter	IS 11255 (Part 1): 1985 (RA 2003)	5 mg/Nm ³ to 1000 mg/Nm

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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
	Source / Stack Emissions Monitoring	Sulphur Dioxide (SO ₂)	IS 11255 (Part 2): 1985 (RA 1995) BSET/SOP/SE-03, Flue gas analyzer method – KANE MAY KM9106	5 mg/Nm ³ to 100 mg/Nm ³ 100 mg/Nm ³ to 500 mg/Nm ³ 500 mg/Nm ³ to 2000 mg/Nm ³
		Oxides of Nitrogen (NO _x)	IS 11255 (Part 7): 2005 BSET/SOP/SE-04, Flue gas analyzer method – KANE MAY KM9106	5 mg/Nm ³ to 100 mg/Nm ³ 100 mg/Nm ³ to 500 mg/Nm ³ 500 mg/Nm ³ to 1000 mg/Nm
		Flue gas Velocity	IS 11255 (Part 3): 2008	3 m/sec to 30 m/sec
		Flow Rate	IS 11255 (Part 3): 2008	10 Nm ³ /hr to 1200000 Nm ³ /h
		Temperature	IS 11255 (Part 3): 2008	Ambient − 600 °C
2.	Ambient Air Monitoring	Relative Humidity Percentage	IS 5182 (Part 4): 1999 (RA 2005)	10 % to 100 %
		Temperature	IS 5182 (Part 4): 1999 (RA 2005)	10 °C to 50 °C
		Suspended Particulate Matter (SPM)	IS 5182 (Part 4): 1999 (RA 2005)	5 μ g/ m 3 to 1000 μ g/ m 3
		Particulate Matter $-10 \mu m$ (PM ₁₀)	IS 5182 (Part 23): 2006	5 μ g/ m^3 to 1000 μ g/ m^3
		Particulate Matter $-2.5 \mu m$ (PM $_{2.5}$)	IS 5182 (Part 23): 2006	5 $\mu g/\ m^3$ to 500 $\mu g/\ m^3$
		Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001	$5~\mu\text{g/}~\text{m}^3~\text{to}~100~\mu\text{g/}~\text{m}^3\\100~\mu\text{g/}~\text{m}^3~\text{to}~500~\mu\text{g/}~\text{m}^3$
		Oxides of Nitrogen (NO _x)	IS:5182 (Part 6): 2006	9 μ g/ m ³ to 100 μ g/ m ³ 101 μ g/ m ³ to 500 μ g/ m ³

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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
	Ambient Air Monitoring	Ozone (O ₃)	IS 5182 (Part IX): 1974 & BSET/SOP/AA-05, Ozone (O ₃),Chemical Method	$10 \ \mu g/\ m^3 \ to \ 100 \ \mu g/\ m^3$ $100 \ \mu g/\ m^3 \ to \ 1000 \ \mu g/\ m^3$
		Ammonia (NH ₃)	BSET/SOP/AA-06, Ammonia (NH ₃), Indophenol Blue Method	$0.1 \ \mu g/\ m^3$ to $10 \ \mu g/\ m^3$ $10 \ \mu g/\ m^3$ to $1000 \ \mu g/\ m^3$