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I.	WATER			
1.	Drinking Water / Packaged	pH value	IS 3025 (Part 11): 1983	1 to 14
	Drinking Water /	Total Dissolved Solids	IS 3025 (Part 16): 1984	2 mg/l to 20000 mg/l
	Process Water / Borewell Water/ River Water/	Turbidity	IS 3025 (Part 10): 1984	1 NTU to 100 NTU
	Mineral Water	Bi-carbonate as HCO <sub>3</sub>	IS 3025 (Part 51): 2001	1 mg/l to 1000 mg/l
		Calcium as Ca	IS 3025 (Part 40): 1991	1 mg/l to 1000 mg/l
		Carbonate as CaCO <sub>3</sub> <sup>-</sup>	IS 3025 (Part 51): 2001	1 mg/l to 1000 mg/l
		Chlorides as Cl <sup>-</sup>	IS 3025 (Part 32): 1988	1 mg/l to 2000 mg/l
		Iron as Fe	IS 3025 (Part 53): 2003	0.1 mg/l to 100 mg/l
		Magnesium as Mg	IS 3025 (Part 46): 1994	1 mg/l to 1000 mg/l
		Nitrates as NO <sub>3</sub> <sup>-</sup>	IS 3025 (Part 34): 1988/ APHA (22 <sup>nd</sup> Edition) P-4500	1 mg/l to 100 mg/l
		Nitrites as NO <sub>2</sub>	IS 3025 (Part 34): 1988	0.1 mg/l to 100 mg/l
		Silica	IS 3025 (Part 35): 1988	1 mg/l to 600 mg/l
		Sodium as Na	IS 3025 (Part 45): 1993	1 mg/l to 1000 mg/l
		Sulphates as SO <sub>4</sub> <sup>2-</sup>	IS 3025 (Part 24): 1986	2 mg/l to 400 mg/l
		Total Alkalinity as CaC03	IS 3025 (Part 23): 1986	1 mg/l to 1000 mg/l
		Total Hardness as CaCO <sub>3</sub>	IS 3025 (Part 21): 1984	1 mg/l to 1500 mg/l

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	Drinking Water / Packaged	Colour	IS 3025 (Part 4): 1983	2 Hazen to 100 Hazen units
	Drinking Water / Process Water / Borewell Water/ River Water/	Conductivity	IS 3025 (Part 14): 2013	0.1 μS/cm to 20000 μS/cm
	Mineral Water	Odour	IS 3025 (Part 5): 1983	Qualitative
		Total solid	IS 3025 (Part 15): 1984	2 mg/l to 2000 mg/l
		Acidity	APHA (22 <sup>nd</sup> Edition) Part-2310	1 mg/l to 100 mg/l
		Aluminium as Al	IS 3025 (Part 55) / IS 3025 (Part 2)	0.01 mg/l to 10 mg/l
		Anionic surface active agents as MBAS	IS 13428: 1998 Annexure k	0.2 mg/l to 10 mg/l
		Barium as Ba	IS 13428: 1998 Annexure F / IS 3025 (Part 2): 2004	0.1 mg/l to 10 mg/l
		Borates as B	IS 3025 (Part 2): 2004 / IS 13428: 1998 Annexure F	0.1 mg/l to 5 mg/l
		Manganese as Mn	IS 3025 (Part 59): 2006 / IS 3025 (Part 2): 2004	0.03 mg/l to 10 mg/l
		Selenium as Se	IS 3025 (Part 56): 2003 / IS 3025 (Part 2): 2004	0.01 mg/l to 1 mg/l
		Silver as Ag	IS 3025 (Part 2): 2004	0.01 mg/l to 1 mg/l
		Zinc as Zn	IS 3025 (Part 2): 2004/ IS 3025 (Part 49): 1994	0.05 mg/l to 10 mg/l

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	Drinking Water / Packaged	Carbon dioxide as CO <sub>2</sub>	APHA (22 <sup>nd</sup> Edition) Part 4500	1 mg/l to 50 mg/l
	Drinking Water / Process Water /	Copper as Cu	IS 3025 (Part 2): 2004	0.02 mg/l to 10 mg/l
	Borewell Water/ River Water/	Cyanide as CN	APHA (22 <sup>nd</sup> Edition) Part 4500- CN	0.01 mg/l to 1 mg/l
	Mineral Water	Fluoride as F	APHA (22 <sup>nd</sup> Edition) Part 4500- F/ IS 3025 (Part 60): 2010	0.02 mg/l to 10 mg/l
		Free residual chlorine	IS 3025 (Part 26): 1986	0.05 mg/l to 50 mg/l
		Phenolic compound	IS 3025 (Part 43): 1992	0.001 mg/l to 10 mg/l
		Anionic surface detergent active agents as MBAS	IS 13428:1998 Annexure K	0.05 mg/l to 10 mg/l
		Antimony as Sb	IS 13428: 1998 Annexure G	0.005 mg/l to 1 mg/l
		Mercury as Hg	IS 3025 (Part 48): 1994	0.001 mg/l to 0.1 mg/l
		Cadmium as Cd	IS 3025 (Part 41): 1992/ IS 3025 (Part 2): 2004	0.002 mg/l to 1 mg/l
		Arsenic as As	IS 3025 (Part 37): 1988	0.01 mg/l to 1 mg/l
		Lead as Pb	IS 3025 (Part 2): 2004	0.01 mg/l to 1 mg/l
		Total Chromium as Cr	IS 3025 (Part 2): 2004	0.01 mg/l to 1 mg/l
		Nickel as Ni	IS 3025 (Part 2): 2004	0.01 mg/l to 1 mg/l
2.	Waste Water	Ammoniacal Nitrogen	IS 3025 (Part 34): 1988	1 mg/l to 100 mg/l
	ETP / STP	Biochemical Oxygen Demand	IS 3025 (Part 44): 1993	1 mg/l to 20000 mg/l

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	Waste Water ETP / STP	Chemical Oxygen Demand	IS 3025 (Part 58): 2006	4 mg/l to 50000 mg/l
	E11 / 511	Chlorides	IS 3025 (Part 32): 1988	1 mg/l to 1000 mg/l
		Dissolved Oxygen	IS 3025 (Part 38): 1989	0.2 mg/l to 7.5 mg/l
		Oil & Grease	IS 3025 (Part 39): 1991	5 mg/l to 100 mg/l
		pH value	IS 3025 (Part 11): 1983	1 to 14
		Phosphorus	IS 3025 (Part 31): 1988	1 mg/l to 1000 mg/l
		Sulphates	IS 3025 (Part 24): 1986	1 mg/l to 1000 mg/l
		Total kjeldhal Nitrogen	IS 3025 (Part 34): 1988	1 mg/l to 1000 mg/l
		Total Suspended Solids	IS 3025 (Part 17): 1985	1 mg/l to 2000 mg/l
		Total Dissolved Solids	IS 3025 (Part 16): 1984	1 mg/l to 10000 mg/l
		Free residual chlorine	IS 3025 (Part 26): 1986	0.05 mg/l to 50 mg/l
		Conductivity	IS 3025 (Part 14): 2013	0.1 μS/cm to 20000 μS/cm
		Hexavalent chromium	APHA (22 <sup>nd</sup> Edition) Part 3500	0.5 mg/l to 50 mg/l
II.	FOOD & AGRICU	<b>JLTURE PRODUCTS</b>		
1.	Milk and Milk Pro	ducts		
a.	Raw / Sterilized/ Pasteurized/	pH Value	IS 1479 ( Part 1 & Part 2): 1961 (RA 2003)	3.0 to 8.0
	Boiled/ Homogenized /	Acidity	IS 1166: 1986 (RA 2003)	0.05 % to 5.0 %
	Flavored/ Toned and Condensed Milk	Total Solids	IS 1166: 1986 (RA 2003) IS 11622: 1986 (RA 2003) IS 1479 (Part 2): 1961 (RA 2003)	1 % to 50 %

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	Raw / Sterilized/ Pasteurized/ Boiled/	Milk Fat	IS 1166: 1986 (RA 2003) IS 1224 (Part 1 & Part 2): 1977	1 % to 15 %
	Homogenized / Flavored/ Toned and Condensed Milk	Adultrants: Cane Sugar, Starch.	IS 1479 (Part 1): 1961 (RA 2003) DGHS – Qualitative	Qualitative (Present/Absent)
b.	Milk Powder	Fat	IS 11721: 2005	0.1 % to 25 %
		Protein	IS 7219: 1973 (RA 2005)	20.0 % to 40.0 %
c.	Butter	Moisture	IS 3507: 1966 (RA 2003)	1.0 % to 20.0 %
		Curd Content	IS 3507: 1966 (RA 2003)	1.0 % to 15.0 %
		Salt Content	IS 3507: 1966 (RA 2003)	0.5 % to 5.0 %
		Fat	IS 3507: 1966 (RA 2003)	1.0 % to 92.0 %
		Titratable Acidity	IS 3507: 1966 (RA 2003)	0.02 % to 0.2 %
		рН	IS 3507: 1966 (RA 2003)	2.0 to 8.0
d.	Ghee	RM value	IS 3508: 1966 (RA 2003)	20.0 to 30.0
		BR reading	IS 3508: 1966 (RA 2003)	35.0 to 50.0
		Free Fatty Acid ( Acidity)	IS 3508: 1966 (RA 2003)	0.1 % to 1.0 %
e.	Ice Cream	Weight/l	IS 2802: 1964 (RA 2009)	1 g to 1000 g
		Total Solids	IS 2802: 1964 (RA 2009)	1.0 % to 75 %
		Acidity	IS 2802: 1964 (RA 2009)	0.05 % to 5 %

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	Ice Cream	Milk Fat	IS 2802: 1964 (RA 2009)	1.0 % to 25.0 %
		Sucrose	IS 2802: 1964 (RA 2009)	1.0 % to 25.0 %
2.	Cereals and Cereal	l Products		
a.	Wheat Atta	Moisture	IS 1155: 1968 (RA 2010)	1.0 % to 15.0 %
		Total ash	IS 1155: 1968 (RA 2010)	1.0 % to 5.0 %
		Acid insoluble Ash	IS 1155: 1968 (RA 2010)	0.01 % to 0.5 %
		Gluten	IS 1155: 1968 (RA 2010)	5.0 % to 15.0 %
		Crude Fiber	IS 1155: 1968 (RA 2010)	1.0 % to 5.0 %
		Alcoholic Acidity	IS 1155: 1968 (RA 2010)	0.02 % to 1.0 %
		Granularity	IS 1155: 1968 (RA 2010)	Qualitative
b.	Maida	Moisture	IS 1009: 1979 (RA 2010)	1.0 % to 15.0 %
		Total ash	IS 1009: 1979 (RA 2010)	0.1 % to 2.0 %
		Acid insoluble Ash	IS 1009: 1979 (RA 2010)	0.01 % to 0.5 %
		Gluten	IS 1009: 1979 (RA 2010)	1.0 % to 15.0 %
		Alcoholic Acidity	IS 1009: 1979 (RA 2010)	0.02 % to 1.0 %
3.	Oils and Fats	Moisture	IS 548 (Part 1): 1964 (RA 2006)	0.02 % to 1.0 %
		Acid value	IS 548 (Part 1): 1964 (RA 2006)	0.1 % to 2.0 %
		Iodine value	IS 548 (Part 1): 1964 (RA 2006)	10 to 150

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	Oils and Fats	Peroxide value	IS 548 (Part 1): 1964 (RA 2006)	0 to 20 meq/kg
		Saponification Value	IS 548 (Part 1): 1964 (RA 2006)	150 to 250
		Unsaponifiable Matter	IS 548 (Part 1): 1964 (RA 2006)	0.2 % to 2.0 %
		Refractive index	IS 548 (Part 1): 1964 (RA 2006)	1.450 to 1.470
		Specific Gravity	IS 548 (Part 1): 1964 (RA 2006)	0.5 to 1.5
4.	Sugar and Sugar P	Products		
a.	Honey	Moisture	IS 4941: 1994 (RA 2002)	1.0 % to 20.0 %
		Ash content	IS 4941: 1994 (RA 2002)	0.05 % to 1.0 %
		Acidity	IS 4941: 1994 (RA 2002)	0.01 % to 0.5 %
		Specific Gravity	IS 4941: 1994 (RA 2002)	1.0 % to 2.0 %
		Reducing Sugar	IS 4941: 1994 (RA 2002)	1.0 % to 80.0 %
		Sucrose	IS 4941: 1994 (RA 2002)	1.0 % to 10.0 %
		Fructose-Glucose ratio	IS 4941: 1994 (RA 2002)	0.5 to 10.0
		HMF Value	IS 4941: 1994 (RA 2002)	10 HMF/kg to 80.0 HMF/kg
		Fiehe's Test	IS 4941: 1994 (RA 2002)	Qualitative (Positive/Negative)
b.	Chocolates	Moisture	IS 1163: 1992 (RA 2009)	0.3 % to 4.0 %
		Sulphated Ash	IS 1163: 1992 (RA 2009)	0.5 % to 5.0 %

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	Chocolates	Acid insoluble Ash	IS 1163: 1992 (RA 2009)	0.010 % to 0.5 %
		Total Fat	IS 1163: 1992 (RA 2009)	1.0 % to 50.0 %
c.	Sugars	Sulphur Dioxide	IS 15279: 2003	0.2 mg/kg to 30 mg/kg
5.	Spices and Condiments	Moisture	IS 1797: 1985 (RA 2009)	1 % to 15 %
	Condiments	Total Ash	IS 1797: 1985 (RA 2009)	1 % to 8.0 %
		Acid insoluble Ash	IS 1797: 1985 (RA 2009)	0.05 % to 2.0 %
		Crude Fiber	IS 1797: 1985 (RA 2009)	1.0 % to 40.0 %
		Non Volatile Ether extract	IS 1797: 1985 (RA 2009)	1.0 % to 18.0 %
		Volatile oil	IS 1797: 1985 (RA 2009)	(0.3 ml to 3.0 ml)/100g
		Salt Content	IS 1797: 1985 (RA 2009)	0.05 % to 10 %
a.	Turmeric Oleoresin	Curcumin Content	IS 10925: 1984 (RA 2001)	1 % to 96 %
6.	Fruits and Vegetab	les		
a.	Tomato Ketch UP	Total Soluble Solids (Brix)	IS 3882: 1966 (RA 2001)	10.0 % to 70.0 %
		Acidity	IS 3882: 1966 (RA 2001)	0.2 % to 5.0 %
b.	Squash	Total Soluble Solids (Brix)	IS 2860: 1964 (RA 2008)	5.0 % to 70.0 %
		Acidity	IS 2860: 1964 (RA 2008)	0.2 % to 3.0 %
7.	Tea	Moisture	IS 13853: 1994	1.0 % to 10.0 %
		Total Ash	IS 13854: 1994	1.0 % to 8.0 %

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	Tea	Water Soluble Ash	IS 13855: 1993	30.0 % to 70.0 %
		Acid insoluble Ash	IS 13857: 1993	0.01 % to 2.0 %
		Alkalinity of water soluble ash	IS13856: 1993	0.5 % to 5.0 %
		Water Extract	IS 13862: 1999	2.0 % to 40.0 %
		Crude Fiber	IS 10226 (Part 1): 1982 (RA 2005)	1.0 % to 20.0 %
8.	Coffee			
a.	Soluble / Instant Coffee Powder	Moisture	IS 2791: 1992 (RA 2009)	1.0 % to 8.0 %
Conee Pov	Conce I owder	Total Ash	IS 2791: 1992 (RA 2009)	1.0 % to 10.0 %
		Solubility in Boiling water	IS 2791: 1992 (RA 2009)	Qualitative
		Solubility in cold water	IS 2791: 1992 (RA 2009)	Qualitative
b.	Roasted and	Moisture	IS 3077: 1992 (RA 1998)	1.0 % to 6.0 %
	Ground Coffee	Total Ash	IS 3077: 1992 (RA 1998)	1.0 % to 8.0 %
		Acid insoluble Ash	IS 3077: 1992 (RA 1998)	0.01 % to 2.0 %
9.	Meat and Meat	Moisture	IS 5960 (Part 5): 2001	1.0 % to 80.0 %
	Products	Total Fat	IS 5960 (Part 3): 1970 (RA 2005)	1.0 % to 15.0 %
		Nitrogen	IS 5960 (Part 1): 1996 (RA 2001)	0.5 % to 8.0 %

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10.	Fish and Fish Products	Moisture	IS 14950: 2001	1.0 % to 85.0 %
	Products	Acid insoluble Ash	IS 14950: 2001	0.1 % to 5.0 %
		Sodium Chloride Content	IS 14950: 2001	0.5 % to 5.0 %
11.	Alcoholic	Ethanol	IS 3752: 2005 (RA 2009)	0 % to 100 %
	Beverages	Residue On Evaporation	IS 3752: 2005 (RA 2009)	0.05 % to 5 %
		Total Ash	IS 3752: 2005 (RA 2009)	0.001 % to 5 %
		Volatile Acidity	IS 3752: 2005 (RA 2009)	(0.05 g to 15 g)/100 l
		Fixed Acidity	IS 3752: 2005 (RA 2009)	(0.05 g to 10 g)/100 l
		Aldehydes as acetaldehydes	IS 3752: 2005 (RA 2009)	(10 g to 100 g)/100 l
		Total Acidity	IS 3752: 2005 (RA 2009)	(0.05 g to 5 g)/100 l
		Esters as ethyl acetate	IS 3752: 2005 (RA 2009)	(0.02 g to 50 g)/100 l
		Furfural	IS 3752: 2005 (RA 2009)	Qualitative
12.	Neutral Spirit	Permanganate reaction Time	IS 6613: 2002	Qualitative
		Miscibility with water	IS 6613: 2002	Qualitative
		Specific Gravity	IS 6613: 2002	0.7 g/ml to 1.0 g/ml
13.	Biscuits	Moisture	IS 1011: 2002 (RA 2009)	0.1 % to 10 %
		Acid Insoluble Ash	IS 1011: 2002 (RA 2009)	0.01 % to 2 %
		Acidity of Extracted Fat	IS 1011: 2002 (RA 2009)	0.1 % to 2 %

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14.	Edible Salt	Water Insoluble Matter	IS 253: 1985 Amd. 4	0.01 % to 2 %
		Chloride Content (as NaCl)	IS 253: 1985 Amd. 5	80 % to 99.9 %
		Acid Insoluble Matter	IS 253: 1985 Amd. 6	0.03 % to 3 %
		Calcium	IS 253: 1985 Amd. 8	0.001 % to 0.1 %
		Magnesium	IS 253: 1985 Amd. 8	0.004 % to 0.1 %
		Alkalinity	IS 253: 1985 Amd. 10	0.01 % to 2 %
		Sulphate	IS 253: 1985 Amd. 9.1	0.005 % to 1 %
15.	Macaroni,	Moisture	IS 1485: 1993 (RA 2005)	1 % to 15 %
	Spaghetti, Vermicelli and	Total ash	IS 1485: 1993 (RA 2005)	0.5 % to 10 %
Egg No	Egg Noodles	Acid insoluble ash	IS 1485: 1993 (RA 2005)	0.01 % to 5 %
		Total protein	IS 1485: 1993 (RA 2005)	0.1 % to 20 %
		Free acidity	IS 1485: 1993 (RA 2005)	1 % to 5 %
		Total solids in gruel	IS 1485: 1993 (RA 2005)	1 % to 10 %
16.	Edible Starch and Starch Products	Moisture	IS 4706 (Part 2): 1978 (RA 2010)	1 % to 25 %
		Total ash	IS 4706 (Part 2): 1978 (RA 2010)	0.01 % to 10 %
		Acid insoluble ash	IS 4706 (Part 2): 1978 (RA 2010)	0.01 % to 5 %

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	Edible Starch and Starch Products	Sulphatedash	IS 4706 (Part 2): 1978 (RA 2010)	0.1 % to 15 %
		Starch	IS 4706 (Part 2): 1978 (RA 2010)	20 % to 90 %
		Protein	IS 4706 (Part 2): 1978 (RA 2010)	0.1 % to 20 %
		pH of aqueous extract	IS 4706 (Part 2): 1978 (RA 2010)	3.0 to 14.0
		Alcoholic acidity	IS 4706 (Part 2): 1978 (RA 2010)	0.05 % to 5 %
		Crude fiber	IS 4706 (Part 2): 1978 (RA 2010)	1 % to 25 %
17.	Cereal and Cereal	Products		
a.	Rice Flour, Corn Flour, Wheat	Zinc	Lab Sop -8 Section: GCAS/FC/SP/4.13.2-	0.2 mg/kg to 200 mg/kg
	Atta, Maida & Suji	Copper	12-8 Version: RO	0.2 mg/kg to 200 mg/k
	Suji	Cadmium	Issue Dated. 23-04: 2014	0.2 mg/kg to 10 mg/kg
		Lead		0.2 mg/kg to 10mg/kg
18.	Food Contact Material (HDP, LDP, PP, PVC)	Overall Migration	IS 9845: 1998	$0.001 \text{ mg/dm}^2$ to 250 mg/dm <sup>2</sup>

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III.	ANIMAL FOOD &	& FEEDS					
1.	Animal Feed & Feeding Stuffs	Moisture	IS 7874 (Part 1): 1975 (RA 2009)	0.2 % to	20 %		
		Total Ash	IS 7874 (Part 1): 1975 (RA 2009)	0.1 % to	20 %		
		Acid Insoluble Ash	IS 7874 (Part 1): 1975 (RA 2009)	0.1 % to	10 %		
		Crude Protein	IS 7874 (Part 1): 1975 (RA 2009)	0.5 % to	40 %		
		Crude Fiber	IS 7874 (Part 1): 1975 (RA 2009)	0.5 % to	10 %		
		Crude Fat	IS 7874 (Part 1): 1975 (RA 2009)	0.2 % to	25 %		
		Salt	IS 7874 (Part 2): 1975 (RA 2009)	0.2 % to	15 %		
IV. 1.	POLLUTION & E Soil	Water content	IS 2720 (Part 2): 1973	0.5 % to	40 %		
		pHvalue	IS 2720 (Part 26): 1987	2 to 12			
		Electrical Conductivity	IS 14767: 2000	2 μS/cm	to 200 mS/m		
		Mineralizable nitrogen	GCAS/CD/S/5.4.1/SOP-MN Issue. 1, Issue Dated. 27-06-2016	5 mg/kg	to 10000 mg/kg		
		Available phosphorus	GCAS/CD/S/5.4.1/SOP-AP Issue. 1, Issue Dated. 27-06-2016	10 mg/k	g to 10000 mg/kg		

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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
	Soil	Available potassium	GCAS/CD/S/5.4.1/SOP-AK Issue. 1, Issue Dated. 27-06-2016	50 mg/kg to 10000 mg/kg
		Total Nitrogen	GCAS/CD/S/5.4.1/SOP-TN Issue. 1, Isue Dated. 27-06-2016	50 mg/kg to 10000 mg/kg
		Organic carbon	GCAS/CD/S/5.4.1/SOP-OC Issue. 1, Issue Dated. 27-06-2016	0.05 % to 10 %
		Total Soluble Solids	IS 2720 (Part 21): 1977	100 mg/kg to 10000 mg/kg
		Total phosphorus	GCAS/CD/S/5.4.1/SOP-TP Issue. 1, Issue Dated. 15-02-2016	50 mg/kg to 10000 mg/kg
		Total Potassium	GCAS/CD/S/5.4.1/SOP-TK Issue. 1, Issue Dated. 15-02-2016	50 mg/kg to 10000 mg/kg
		Total sodium	GCAS/CD/S/5.4.1/SOP-TNa Issue. 1, Issue Dated. 15-02-2016	50 mg/kg to 10000 mg/kg
		Exchangeable calcium	GCAS/CD/S/5.4.1/SOP-ECa Issue. 1, Issue Dated. 27-06-2016	5 mg/kg to 10000 mg/kg
		Exchangeable magnesium	GCAS/CD/S/5.4.1/SOP-EMg Issue. 1, Issue Dated. 27-06-2016	5 mg/kg to 10000 mg/kg
		Cation exchange capacity	IS 2720 (Part 24): 1976	(0.5 meq to 500 meq) /100g

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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
v.	SOLID FUELS			
1.	Coal	Moisture	IS 1350 (Part 1): 1984	2 % to 50 %
		Ash Content	IS 1350 (Part 1): 1984	1 % to 60 %
		Volatile matter	IS 1350 (Part 1): 1984	1 % to 50 %
		Fixed carbon	IS 1350 (Part 1): 1984	Upto 50 %
		Gross calorific value	IS 1350 (Part 2): 1970	1000 kcal/kg to 7000 kcal/kg
VI.	ATMOSPHERIC			2 2
1.	Ambient Air Monitoring & Analysis	PM 10	IS 5182 (Part 23): 2006	$10 \ \mu g/m^3$ to $1000 \ \mu g/m^3$
		PM 2.5	GCAS/CD/AIR/A/5.4.1/SOP – PM <sub>2.5</sub>	$10 \ \mu g/m^3$ to 500 $\ \mu g/m^3$
		SO <sub>X</sub>	IS 5182 (Part 2): 2001	5 $\mu$ g/m <sup>3</sup> to 1050 $\mu$ g/m <sup>3</sup>
		NO <sub>X</sub>	IS 5182 (Part 6): 2006	5 $\mu$ g/m <sup>3</sup> to 750 $\mu$ g/m <sup>3</sup>
		Ozone	GCAS/CD/AIR/A/5.4.1/SOP – O <sub>3</sub> Issue. 01, Issue Dated. 19-02-2016	$0.01 \ \mu g/m^3$ to $500 \mu g/m^3$
		Carbon monoxide	GCAS/CD/AIR/A/5.4.1/SOP – CO Issue. 01, Issue Dated. 19-02-2016	1 mg/m <sup>3</sup> to 1000 mg/m <sup>3</sup>
		Ammonia	GCAS/CD/AIR/A/5.4.1/SOP – NH <sub>3</sub> Issue. 01, Issue Dated. 19-02-2016	0.5 $\mu g/m^3$ to 1000 $\mu g/m^3$

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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 &	Benzene	IS 5182 (Part 11): 2006 (RA 2009)	0.01 $\mu g/m^3$ to 100 $\mu g/m^3$
	Analysis	Benzo(a) pyrene	GCAS/CD/AIR/A/5.4.1/SOP – BaP Issue. 01, Issue Dated. 19-02-2016	0.01 ng/m <sup>3</sup> to 100 ng/m <sup>3</sup>
		Arsenic	GCAS/CD/AIR/A/5.4.1/SOP – M Issue. 01, Issue Dated. 19-02-2016	0.1 ng/m <sup>3</sup> to 1000 ng/m <sup>3</sup>
		Nickel	GCAS/CD/AIR/A/5.4.1/SOP – M Issue. 01, Issue Dated. 19-02-2016	0.1 ng/m <sup>3</sup> to 1000 ng/m <sup>3</sup>
		Lead	GCAS/CD/AIR/A/5.4.1/SOP – M Issue. 01, Issue Dated. 19-02-2016	0.01 $\mu g/m^3$ to 100 $\mu g/m^3$
2.	Ambient Noise Monitoring	Noise level	IS 10988: 1984/ IS 4758 1968 (RA 2002)	30 dB to 130 dB
3.	Stack Monitoring & Analysis	Particulate Matter	IS 11255 (Part 1): 1985	0.005 g/Nm <sup>3</sup> to 100 g/Nm <sup>3</sup>
		SO <sub>X</sub>	IS 11255 (Part 2): 1985 (RA 2003)	1 mg/Nm <sup>3</sup> to 400 mg/Nm <sup>2</sup>
		NO <sub>X</sub>	IS 11255 (Part 7): 1985 (RA 2005)	10 mg/Nm <sup>3</sup> to 2500 mg/Nm <sup>3</sup>

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S. No. Pr Ma	roduct / aterial of Test	Specific Test Performed	Test Method Specification against which tests are performed		of Testing / of Detection
	ack Monitoring Analysis	Stack Gas Velocity	IS 11255 (Part 3): 1985 (RA 2008)	1 m/s to	50 m/s
		Carbon monoxide	GCAS/CD/AIR/S/5.4.1/SOP-C Issue. 01, Issue Dated. 19-02-2016	CO 1 ppm to	o 100000 ppm
		Carbon dioxide	GCAS/CD/AIR/S/5.4.1/SOP- CO <sub>2</sub> Issue. 01, Issue Dated. 19-02-2016	0.1 % to	30 %
		Oxygen	GCAS/CD/AIR/S/5.4.1/SOP-C Issue. 01, Issue Dated. 19-02-2016	$D_2 = 0.1 \%$ to	21 %
		Acid mist as H <sub>2</sub> SO <sub>4</sub>	USEPA Method -8	0.5 mg/l 500 mg/	
		Hydrogen sulphide	IS 11255 (Part 4): 2006	1 mg/Nr	n <sup>3</sup> to 100 mg/Nm <sup>3</sup>

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**NOTE**: The Laboratory has demonstrated competence for the stated scope for **WATER**. This however <u>does not fully</u> <u>cover</u> the specification requirements of **BIS for the Packaged Drinking Water as per IS 14543 and the Packaged Natural Mineral Water IS 13428.**