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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
LOCA	ATION 1			
1.	AMBIENT AIR MONITORING	Oxide of Nitrogen (Nox) Sulphur Dioxide (SO ₂) Suspended Particulate Matter (SPM)	IS:5182 (Pt-6): 2006 IS:5182 (Pt-2): 2001 IS:5182 (Pt-4): 1999	$\begin{array}{c} 20\text{-}100~\mu\text{g/m}^2 \\ 4\text{-}100~\mu\text{g}~/\text{m}^2 \\ 10\text{-}2000~\mu\text{g/m}^2 \end{array}$
2.	STACK EMISSION MONITORING	Oxide of Nitrogen (Nox) Sulphur Dioxide (SO ₂) Suspended Particulate matter (SPM) CO ₂	IS:5182 (Pt-6): 2006 IS:11255 (Pt-2)-1999, RA 2003 IS:11255 (Pt-2)-1999, RA 2003 APHA: 134 Second Edition Pg. 373 – 377	2-100 mg/m ² 4-100 mg/m ² 5-500 mg/m ² 0.1-10%
3.	PAPER & ALLIED PRODUCTS	pH of water extract Soluble Chlorides Soluble Sulphates Moisture Content Ash Content	EN 12858/ISO 536/ EN ISO 1924-2/EN 20287/ IS: 1060-Part 1-1966, Reaffirmed 2004 IS: 1060-Part 2-1960, Reaffirmed 2004 IS: 1060-Part 3-1969, Reaffirmed2004 IS: 1060 P-1-1966	1-14 Upto 2% Upto 2% Upto 20% Upto 20%
4.	COAL, COKE & SOLID FUELS	Moisture Ash Volatile Matter Proximate analysis	IS:1350 P-1,1984, Reaffirmed 2002	0.1-30% 0.1-60% 0.1-60%
		Sulphur Content Chemical Analysis of Ash Calorific Value Fixed Carbon	IS:1350 (ptIII) -1969 Reaffirmed 2005 IS 1355:1984 Reaffirmed 2007 IS 1350 (Part 2):1970 RA 2010 By Calculation IS:1350 P-3, 1969, Reaffirmed 2000	0-5% 1000-8000 cal/g 5-60%

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LOCA	ATION 1			
5.	METALS COATING (Thickness)	Tin	IS:1327:1988 (Stripping Method) Reaffirmed 2006	0.1-100 μ
	(Thickness)	Phosphate	IS:14503:1998 (Stripping Method) Reaffirmed 2006	0.1-100 μ
		Zinc	IS:6745: 1972 Reaffirmed 2006 ISO 1461(Stripping Method)	0.1-100 μ
			ISO 2178 (Magnetic method)	$50-1000 \text{g/m}^2$
		Uniformity of Zinc coating	IS 2633:1986 Reaffirmed 2006	Qualitative
		Anodising	IS 5523: 1983 (Stripping Method) Reaffirmed 2006	0.1-100 μ
		Cadmium	IS 3203:1982 (BNF jet method) Reaffirmed 2006	0.1-10 μ
		Nickel	IS 3203:1982 Reaffirmed 2006 (Stripping Method/BNF Jet)	0.1-50 μ
		Chromium	IS 3203: 1982 (Stripping Method) Reaffirmed 2006	0.05-1 μ
6.	CAST IRON STEEL & FERROUS ALLOYS	Carbon Silicon Manganese Sulphur Phosphorus Chromium Molybdenum Nickel	IS 228 (pt 1to 24) / IS 12308 (Reaffirmed 2006/7) 1987(Part 1 to 14) ASTM E350/ E351/ E352/ E353/ E354/ BS 6200	0.01-3.8% 0.01-3.0% 0.15-15% 0.001-0.25% 0.005-0.5% 0.1-31% 0.1-10% 0.01-40%

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LOCA	ATION 1			
		Titanium	IS 228 (pt 1to 24) /	0.01-2.5 %
		Vanadium	IS 12308 (Reaffirmed 2006/7)	0.1-2.5%
		Tungsten	1987(Part 1 to 14)	0.1-10 %
		Aluminum	ASTM E350/ E351/ E352/ E353/	0.01-1 %
		Niobium	E354/ BS 6200	0.01-0.5%
		Copper		0.01-1%
		Cobalt		0.1-75%
		Nitrogen		0.001-0.02%
		Boron		0.01-2 %
7.	ALUMINIUM &	Copper	IS 504 (Pt 1-12): 2002	0.001-12%
	ITS ALLOYS	Magnesium	Part 13-16: 2003 /ASTM E34	0.001-12%
		Iron		0.001-2%
		Nickel		0.1-2%
		Manganese		0.1-2%
		Zinc		0.1-6%
		Chromium		0.1-0.25%
		Titanium		0.01-1.0
		Silicon		0.1-24%
		Vanadium		0.05-1%
		Lead		0.001-0.1%
		Aluminium		70-100%
8.	COPPER & ITS	Tin	IS:3685 : 1966, Reaffirmed 2006	0.01-10%
	ALLOYS	Lead	IS: 4027: 1987, Reaffirmed 2006	0.001-10%
		Iron	IS: 440: 1964, Reaffirmed 2006	0.01-6%
		Nickel	IS: 3186: 1965, Reaffirmed 2006	0.01-45%
		Manganese	IS: 3187: 1965, Reaffirmed 2006	0.01-4%
		Phosphorus	IS: 4646 pt 1 and 2,	0.005-0.2%
		Zinc	Reaffirmed 2003	0.05-45%
		Silicon	ASTM E 53,54 & 62 and AAS	0.05-2%
		Oxygen		0.001-0.1%
		Bismuth		0.0005-0.1%

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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
LOCA	ATION 1			
		Aluminium		0.01-12%
		Arsenic		0.001-0.5%
		Silver		0.1-10%
		Copper		25-99.95%
9.	ZINC & ITS	Aluminium	IS: 2600(P1)-88	0.02-12%
	ALLOYS	Copper	IS: 2600(P2)-88	0.01-3%
		Magnesium	IS: 2600(P3)-93	0.01-0.1%
		Lead	IS: 2600(P4)-93	0.001-1%
		Cadmium	All Reaffirmed in 2003	0.001-0.5%
		Nickel	ASTM E –40	0.005-0.5%
		Tin	ASTM E-536	0.001-1%
		Iron	AAS	0.01-2%
		Zinc		80-99.9%
10.	PETROLEUM	Density	IS:1448 P-32, 1992,	0.5-1.1 kg
	PRODUCTS		Reaffirmed 2003	Ō
	(HSD, LDO	Flash Point	IS:1448 P-20, 1998	$40-250^{0}$ C
	Lubricating Oils, fuel Oil, Turbine	Sediment	IS:1448 P-30, 1967, Reaffirmed 2003	0.01-1%
	Oils, Insulating	Total Acidity	IS:1448 P-2, 1967,	0.01-10%
	Oils, Hydraulic		Reaffirmed 2003	
	Oil)	Ash Content	IS:1448 P-4, 2008	0.01-20%
		Water	IS:13567, 1992, Reaffirmed 2008	0.05-20%
		Flash & Fire	IS:1448 P-69, 1969,	$50-360^{0}$ C
		Sulphated Ash	Reaffirmed 2003 IS:1448 P-4, 2008,	0.01-5%
		•	Reaffirmed 1996	
		Saponification Value	IS:1448 P-55: 2004	1-300
		Evaporation Loss	IS:1448 P-68, 1967,	0.1-10%
			Reaffirmed 2003	

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LOCA	ATION 1			
11.	PAINT	Consistency	IS:101(Pt-1/SEC-5)-89	10 -500 s
	VARNISHES	Flash point	IS;101(Pt-1/SEC-6)-87	20-95°C
	AND RELATED	Mass in kg / 10 l	IS:101(Pt-1/SEC-7)-87	5-20
	PRODUCTS	Water content	IS:101) (Pt-2/SEC-1)-88	0.01-10%
		Volatile matter	IS:101(Pt-2/SEC-2)-86	0.01-80%
		Drying time	IS:101(Pt-3/SEC-1)-86	Qualitative
		Dry Film thickness	IS:101(Pt-3/SEC-2)-89	10-200 μm
		Fineness of grind	IS:101(Pt-3/SEC-5)-87	0-100 μm
		Opacity	IS:101(Pt-4/SEC-1)-88	$50-250 \text{ m}^2/\text{kl}$
		Gloss	IS:101(Pt-4/SEC-4)-88	5 - 100
		Hardness tests	IS:101(Pt-5/SEC-1)-88	Qualitative
		Flexibility and adhesion	IS:101(Pt-5/SEC-2)-88	Qualitative
		Resistance to water	IS;101(Pt-7/SEC-1)-89	Qualitative
		Resistance to liquids	IS;101(Pt-7/SEC-2)-90	Qualitative
		Residue on sieve	IS;101(Pt-8/SEC-1)-89	0.01-20%
		Pigments & Non volatiles	IS;101(Pt-8/SEC-2)-90	0.01-80%
		Ash Content	IS;101(Pt-8/SEC-3)-93	0.01-20%
		Pthalic Anhydride	IS;101(Pt-8/SEC-4)-93	10-25%
		Lead restriction test	IS;101(Pt-8/SEC-5)-93	0.01-10%
		Volume solids	IS:101(Pt-8/SEC-6)-93	5-60%
		Acid value	IS;101(Pt-9/SEC-1)-93	0.01- 20 mg of KOH/g
		Rosin test	IS;101(Pt-9/SEC-2)-93	Qualitative
		Zinc Oxide	IS:6947(Pt-1)-73	0.01-100%
		Titanium dioxide	IS:6947(Pt-1)-73	0.01-100%
12.	ADHESIVES	Total Solids	IS:4835-1979 Reaffirmed 2005	0.1-100%
	(Liquid Gum,	pH Value	IS:2257-1989 Reaffirmed 1998	1-13
	Office Paste, PVA	Chlorides		0.01-10%
	Based Adhesives)	Sulphates		0.01-10%
		Moisture		0.01-10%
		Ash Content		0.01-10%
		Bulk Density		0.7-1.5 kgl

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LOCA	ATION 1			
13.	POLYMERS	HCl Evolution of PVC	ISO 182-1 to 4	-
14.	RUBBER & RUBBER PRODUCTS	Total Zinc oxide Heavy Metals Identification of Rubber Polymer	App A IS 7466 App B IS 7466 ASTM D3677	0-10% Qualitative -
		Rubber polymer chemical analysis	IS 3400 (Part 22): 2004 BS 5923 (Part2) ISO 2454; ASTM D297 BS 7164 (Part 24), ISO 7269 BS 7164 (Part 21), ISO 1659 BS 7164 (Part 14), ISO 1408 BS 7164 (Part 3), ISO 1407 BS 5923, ISO 247	0.1-100%
15.	ANIMAL FEED	Calcium	IS: 7874-1975 Part II (Reaffirmed 2009)	0.1 - 40%
		Crude Fat	IS: 7874-1975 Part I (Reaffirmed 2009)	0.1 - 30.0%
		Crude Fiber	IS: 7874-1975 Part I (Reaffirmed 2009)	0.1-30.0%
		Crude Protein	IS: 7874-1975 Part I (Reaffirmed 2009)	1.0 - 30.0%
		Moisture	IS: 7874-1975 Part I (Reaffirmed 2009)	0.1 - 30%
		Phosphorus	IS: 7874-1975 Part II (Reaffirmed 2009)	0.1 - 25%
		Salt (as NaCl)	IS: 7874-1975 Part II (Reaffirmed 2009)	0.5 - 20%
		Urea Nitrogen	IS: 7874-1975 Part I (Reaffirmed 2009)	0.01 - 10%

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LOCA	ATION 1			
LOCE	<u>XIION I</u>	Total Ash	IS: 7874-1975 Part I (Reaffirmed 2009)	0.1 -50.0%
		Acid Insoluble ash	IS: 7874-1975 Part I (Reaffirmed 2009)	0.01 - 25.0%
		Iron	IS: 7874-1975 Part II (Reaffirmed 2009)	0.05 - 5%
		Copper	IS: 7874-1975 Part II (Reaffirmed 2009)	0.05 - 1%
		Manganese	IS: 7874-1975 Part II (Reaffirmed 2009)	0.05 - 2%
		Cobalt	IS: 7874-1975 Part II (Reaffirmed 2009)	0.05 - 2%
		Zinc	IS: 7874-1975 Part II (Reaffirmed 2009)	0.05 – 2%

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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
LOCA	ATION 2			
1.	CEMENT &	Loss of Ignition	IS:4032-1985, RA 2005	0.1-10%
	CLINKER	Silica	IS 12423: 1988, RA 2005	0.5-30%
		Alumina	BSEN/196-2 721: 1995	0.5-18%
		Iron Oxide	ASTM C114	0.1-10%
		Calcium Oxide		30-70%
		Magnesium Oxide		0.5-6%
		Sulphuric Anhydride		0.2-5%
		Insoluble Residue		0.1-40%
		Chloride		0.01-0.5%
		Alkalies (Sodium Oxide &		0.01-3.5 %
		Potessium Oxide)		
		Phosphate (P_2O_5)		0.1-3.0 %
		Sulphide		0.1-5.0 %
		TiO_2		0.05-2%
2.	CONCRETE,	Cement Content & Ratio	IS: 1199: 1959, RA 2004	0.5-40%
	ADMIXTURES &	Analysis	ASTM C-1084	
	AGGREGATES	Chlorides	IS:6925-1973, Reaffirmed 2004	0.002-3.0 %
			BS 812: 1988	
		Sulphates	BS 812: 1988	0.005-1%
		Dry Material Content	IS: 9103-1999, RA 2004	1-40%
		Ash Content	IS: 9103-1999, RA 2004	0.1-20%
		pН	IS: 9103-1999, RA 2004	1-14
		Water Content (Admixture)	IS: 9103-1999, RA 2004	Upto 95%
		Water absorption	IS: 2386(pt III)-1963, RA 2007	0.3-1%
		Alkali reactivity	IS: 2386(pt VII)-1963, RA 2007	Qualitative
		Organic matter	IS: 2386-1963, RA 2007	Qualitative
3.	POZZOLANIC	LOI	IS 4032-1985/ Reaffirmed 2005	0.2-10.0%
	MATERIALS	SiO_2	IS 1727, RA 2004	15.00-70.0%
	(Clay, Pozzolana,	Al_2O_3	IS 12423, RA 2005	2.00-25.0%
	Fly Ash, Coal Ash/	Fe_2O_3	IS 3812, RA 1999	1.0-5.0%
	Silica Fume)	CaO	,	0.50-15.0%

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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
LOCA	ATION 2			
		MgO	IS 4032-1985/ Reaffirmed 2005	0.20-7.0%
		SO_3	IS 1727, RA 2004	0.5-10.0%
		Na ₂ O	IS 12423, RA 2005	0.005-5.0%
		K_2O	IS 3812, RA 1999	0.005-5.0%
		Cl	•	0.002-0.5%
		TiO ₂		0.1-3.5%
		$P_2O_5^2$		0.005-2.0%
		Mn_2O_3		0.005-2.0%
4.	BITUMEN &	Flash Point	IS1209-1978, RA 1988	230-360 ⁰ C
	BITUMINOUS	Specific Gravity	IS:1202-1978, RA 1990	0.7-1.2
	MATERIALS	Loss on Heating	IS:1212-1978, RA 1988	0.1-100%
	Paving Bitumen	Water Content	IS:1211-1978	0.01-10%
	IS:73-1992	Ash Content	IS:1217-1978, RA 1990	0.1-10%
	Industrial	Toluene soluble	IS:1215-1978	1-100%
	Bitumen	Mineral Matter (Ash)	IS:1217-1978, RA 1990	0.1-5%
	IS:702-1988	Volatile Matter	IS:1220-1978, RA 1988	0.1-5%
5.	BENTONITE	Loss on Ignition	IS:6186 – 1986, RA 2003	0.1-20%
		Moisture	,	0.1-20%
		Copper Content		0.1-5%
		Manganese		0.1-5%
		Water Soluble Matter		0.1-15%
6.	SOIL	Conductivity of Extract	IS 2720	1-500 μ siemens/cm
		Nitrogen	IS 14684	0.01-5%
		Phosphorus	IS 14684	0.01-5%
		Organic matter	IS 2720 Pt 22: 1977, RA 2005	0.1-20%
		Chloride	IS 2720	0.1-5%
		Sulphate	IS 2720 Pt 27: 1977, RA 2005	0.1-5%
		Nitrate	IS 2720	0.1-3%

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LOCA	ATION 2			
7.	SALT	Loss on drying/Moisture	IS:253 – 1985(Reaffirmed in 2004)	0.5 - 10%
		Matter soluble in water other than Sodium Chloride	IS:253 – 1985(Reaffirmed in 2004)	0.5 - 5%
		Chloride (as NaCl)	IS:253 – 1985(Reaffirmed in 2004)	Upto 99.9%
		Water Insoluble's	IS:253 – 1985(Reaffirmed in 2004)	0.1 - 5%
		Calcium	IS: 253 – 1985(Reaffirmed in 2004)	0.01 - 0.5%
		Magnesium	IS: 253 – 1985(Reaffirmed in 2004)	0.01 - 0.5%
		Sulphate	IS:253 – 1985(Reaffirmed in 2004)	0.1 - 2.0%
		Alkalinity	IS: 253 – 1985(Reaffirmed in 2004)	0.05 - 2.0%
		Lead	IS: 253 – 1985(Reaffirmed in 2004)	0.1 - 10 ppm
		Iron	IS: 253 – 1985(Reaffirmed in 2004)	0.1-100ppm
		Arsenic	IS: 253 – 1985(Reaffirmed in 2004)	0.1 - 2 ppm
		Copper	IS: 253 – 1985(Reaffirmed in 2004)	0.1 - 5 ppm
		Particle Size	IS: 253 – 1985(Reaffirmed in 2004)	1 - 100%
8.	IODIZED SALT	Loss on drying	IS 7224 :2006(Reaffirmed in 2010)	0.5 - 10%
		Iodine Content	IS 7224 :2006(Reaffirmed in 2010	5 - 50ppm
		Matter soluble in water other than Sodium Chloride	IS 7224 :2006(Reaffirmed in 2010)	0.5 - 10%
		Chloride(as NaCl)	IS 7224 :2006(Reaffirmed in 2010)	Upto 99.9%
		Water Insoluble	IS 7224 :2006(Reaffirmed in 2010)	0.1 - 5%
9.	SPICES CONDIMENTS	Moisture	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.5 -30.0%
	AND RELATED PRODUCTS	Total ash	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.1-50.0%
	(ground spices)	Acid insoluble ash	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.01-20.0%
		Water soluble ash	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.01-10.0%
		Alcohol soluble extract	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	1.0-30.0%

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LOCA	ATION 2			
		Cold water soluble extract	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	1.0-80.0%
		Crude fiber	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	1.0-60.0%
		Non volatile ether extract	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	1.0-50.0%
		Volatile oil	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.5-30.0%
		salt	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.5-60.0%
		Added colouring matter	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	Present/absent
10.	WHOLE SPICES	Extraneous matter	IS:1797:1985(Reaff. 2009)/	0.1 to 50.0%
		Broken fruits	MOHAFW Lab Manual 10 IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.1 to 20.0%
		Moisture	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	1.0 to 30.0%
		Total ash	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.1 to 50.0%
		Acid insoluble ash	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.01 to 20.0%
		Non volatile ether extract	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	1.0 to 50.0%
		Cold water soluble extract	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	1.0-80.0%
		Volatile oil content	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.1 to 30.0%
		Edible seeds	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.1 to 50.0%
		Insect damaged matter	IS:1797:1985(Reaff. 2009)/ MOHAFW Lab Manual 10	0.1 to 50.0%

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LOCA	ATION 2			
11.	BLACK PEPPER	Detection of mineral oil	MOHAFW Lab Manual 10	Present/absent
12.	TURMERIC	Curcumin	IS 3576: 2010	1.0-20.0%
		Starch	IS 3576: 2010	1.0-80.0%
13.	HING (asafoetida)/	Colophony resin	MOHAFW, Lab Manual 10 page no 108	Present/absent
	Compound hing	Galbanum resin	MOHAFW, Lab Manual 10	Present/absent
		Ammoniaccum resin	MOHAFW, Lab Manual 10	Present/absent
		Any other foreign resin	MOHAFW, Lab Manual 10	Present/absent
		Coal tar dyes	MOHAFW, Lab Manual 10	Present/absent
		Mineral pigment		Present/absent
		Total ash	MOHAFW, Lab Manual 10	0.1 to 60.0%
		Acid insoluble ash	MOHAFW, Lab Manual 10	0.01 to 20.0%
		Alcoholic extract	MOHAFW, Lab Manual 10	1to 90.0%
		Starch	MOHAFW, Lab Manual 10	0.1 to 60.0%
14.	COFFEE,	Moisture	MOHAFW, Lab Manual 4	1.0 -30.0%
	COCOA AND BY	Total ash	MOHAFW, Lab Manual 4	0.1 - 50.0%
	PRODUCTS	Acid insoluble ash	MOHAFW, Lab Manual 4	0.01-20.0%
		Water soluble ash	MOHAFW, Lab Manual 4	0.01-10.0%
		Aqueous extracts	MOHAFW, Lab Manual 4	1 - 80.0%
		Solubility in boiling water	IS 2791: 1992	10 s to 2 minutes
		Solubility in cold water	IS 2791: 1992	1 s to 6 minutes
15.	OILS & FATS	Saponification value	IS: 548 (Part 1) – 1964	50 – 350
		Moisture	Reaffirmed 2000	0.1 - 20.0%
		Unsaponifiable matter	IS: 548 (Part 1) – 1964 Reaffirmed 2000	0.1 - 10%
		FFA as oleic acid	IS: 548 (Part 1) – 1964	0.1 - 30.0%
		Acid value	Reaffirmed 2000	

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LOCA	ATION 2			
		Iodine value	IS: 548 (Part 1) – 1964 Reaffirmed 2000	5 – 300
		Peroxide value (per 1000g)	IS: 548 (Part 1) – 1964 Reaffirmed 2000	1.1-50
		Specific gravity	IS: 548 (Part 1) – 1964 Reaffirmed 2000	0.6 - 1.4
		Bellier turbidity test	IS: 548 (Part 1) – 1964 Reaffirmed 2000	10 to 50°C
		Baudouins test (Test for sesame oil)	MOHAFW, Lab Manual 2	Absent/Present
		Halphens test (Test for cotton seed oil)	MOHAFW, Lab Manual 2	Absent/Present
		Hexabromide Test (Test for linseed oil)	MOHAFW, Lab Manual 2	Absent/Present
		Polybromide Test	MOHAFW, Lab Manual 2	Absent/Present
		Test for presence of mineral oil	MOHAFW, Lab Manual 2	Absent/Present
		Test for presence of castor oil	MOHAFW, Lab Manual 2	Absent/Present
		Test for presence of Karanja oil	MOHAFW, Lab Manual 2	Absent/Present
		Reichert Meissl and polenske value	MOHAFW, Lab Manual 2	2.0 to 50.0
		B.R Value	MOHAFW, Lab Manual 2	30.0 - 80.0
		Argemone oil	MOHAFW, Lab Manual 2	Absent/present
16.	MILK AND	Moisture	MOHAFW, Lab Manual 1	1.0 to 95.0%
	DAIRY	Total Protein	MOHAFW, Lab Manual 1	0.2- 70.0%
	PRODUCTS	fat	MOHAFW, Lab Manual 1	0.2 -80.0 %
	(Milk)	Total solids	MOHAFW, Lab Manual 1	0.1 - 90.0%
		Solids not fat	MOHAFW, Lab Manual 1	1.0 - 50.0%
		Test for starch	MOHAFW, Lab Manual 1	Absent/present
		Test for urea	MOHAFW, Lab Manual 1	Absent/present
		Test for sugar	MOHAFW, Lab Manual 1	Absent/present
		Test for soda	MOHAFW, Lab Manual 1	Absent/present

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LOCA	ATION 2			
		Sugar content	MOHAFW, Lab Manual 1	
		Test for detergent	MOHAFW, Lab Manual 1	Absent/present
		Titratable acidity	IS 10484 : 1983	0.1-10.0%
17.	GHEE/ BUTTER	Moisture	MOHAFW, Lab Manual 1	0.1 to 20.0%
	OIL	B.R. Value	MOHAFW, Lab Manual 1	10 to 90.0
		Free fatty acid	MOHAFW, Lab Manual 1	0.1 to 20.0%
		Reichert value	MOHAFW, Lab Manual 1	1.0 to 80.0
		Baudouins test	MOHAFW, Lab Manual 1	Absent /present
		Milk fat	MOHAFW, Lab Manual 1	50.0 to 100.0%
18.	BUTTER	Common salt	MOHAFW, Lab Manual 1	0.5 - 10.0%
19.	CEREALS AND	Moisture	IS 4333(Part 2):2002/	1.0 - 25.0%
	PULSES BY		MOHAFW, Lab Manual 3	
	PRODUCTS:	Foreign matter	IS 4333(Part 2):2002/	0.1 - 40.0%
	FOODGRAINS		MOHAFW, Lab Manual 3	
		Damaged grain	IS 4333(Part 2):2002/	0.1 - 40.0%
			MOHAFW, Lab Manual 3	
		Other edible grains	IS 4333(Part 2):2002/	0.1 - 30.0%
			MOHAFW, Lab Manual 3	
		Weevilled grains	IS 4333(Part 2):2002/	0.1 - 70.0%
			MOHAFW, Lab Manual 3	
20.	WHEAT ATTA	Moisture	IS 1155-2000/	0.5 - 20.0%
			MOHAFW,Lab Manual 3	
		Total ash	IS 1155-2000 /	0.1 - 30.0%
			MOHAFW,Lab Manual3	
		Acid insoluble ash	IS 1155-2000/	0.1 - 20.0%
			MOHAFW ,Lab Manual 3	
		Acidity(alcoholic)	IS 1155-2000/	0.01 - 5.0%
			MOHAFW ,Lab Manual 3	

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LOCA	ATION 2			
		Gluten	IS 1155-2000/ MOHAFW ,Lab Manual 3	1.0 - 20.0%
		Crude fibre	IS 1155-2000/ MOHAFW ,Lab Manual 3	0.1 - 25.0%
		Granularity with 600 micron	IS 1155-2000/ MOHAFW Lab Manual 3	0-50.0% retention
		Protein	MOHAFW	0.5- 50.0%
21.	MAIDA	Moisture	IS1009:1979(Reaff.2005)/ MOHAFW, Lab Manual 3	0.5 - 20.0%
		Total ash	IS1009:1979(Reaff.2005)	0.1 - 30.0%
		Acid insoluble ash	IS1009:1979(Reaff.2005)/	0.1 - 20.0 %
			MOHAFW, Lab Manual 3	
		Gluten	IS1009:1979(Reaff.2005)/	1.0-25.0%
			MOHAFW, Lab Manual 3	
		Alcoholic acidity	IS1009:1979(Reaff.2005)/	0.01 - 5.0%
			MOHAFW, Lab Manual 3	
22.	SUJI/RAVA	Moisture	IS1010:1968(Reaff.2005/	0.5 - 50.0%
			MOHAFW, Lab Manual 3)	
		Total ash	IS1010:1968(Reaff.2005/	0.5 - 30.0%
			MOHAFW, Lab Manual 3)	
		Acid insoluble ash	IS1010:1968(Reaff.2005)/	0.1 - 20.0 %
			MOHAFW, Lab Manual 3	
		Gluten	IS1010:1968(Reaff.2005)/	1.0-25.0%
			MOHAFW, Lab Manual 3	
		Alcoholic acidity	IS1010:1968(Reaff.2005)/	0.01 - 5.0%
			MOHAFW, Lab Manual 3	
23.	MACRONI	Moisture	IS 1485:1993(Reaff.2010)	1.0 - 30.0%
	PRODUCTS	Total ash	IS 1485:1993(Reaff.2010)	0.1 - 20.0%
		Acid insoluble ash	IS 1485:1993(Reaff.2010)	0.01 - 10.0%
		Nitrogen	IS 1485:1993(Reaff.2010)	1.0 - 20.0%

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LOCA	ATION 2			
24.	CORN	Moisture	MOHAFW, Lab Manual 3	1.0 - 30.0%
	FLOUR/CORN	Total ash	MOHAFW, Lab Manual 3	0.1 - 40.0%
	FLAKES/	Acid insoluble ash	MOHAFW, Lab Manual 3	0.1 - 15.0%
	CUSTARD POWDER	Alcoholic acidity (with 90% alcohol)	MOHAFW, Lab Manual 3	0.1 -5.0%
25.	BISCUIT	Acid insoluble ash	MOHAFW, Lab Manual 3	0.01 - 10.0%
		Acidity of extracted fat	MOHAFW, Lab Manual 3	0.01 - 6.0%
		Moisture	IS: 1011	0.5 - 5.0%
26.	BREAD	Alcoholic acidity	MOHAFW, Lab Manual 3	0.1 - 10.0
		Acid insoluble ash	MOHAFW, Lab Manual 3	0.01 - 10.0%
27.	SUGAR AND BY	Specific Gravity	IS 4941 : 1994,	0.5 - 3.50
	PRODUCTS	Maria	MOHAFW Lab Manual 4	0.1.70.00/
	(HONEY)	Moisture	IS 4941 : 1994,	0.1-70.0%
		Total Daducina areas	MOHAFW Lab Manual 4	0.5 00.00/
		Total Reducing sugar	IS 4941 : 1994, MOHAFW Lab Manual 4	0.5 - 99.0%
		Sucrose	IS 4941 : 1994,	0.5 - 99.0%
		Sucrose	MOHAFW Lab Manual 4	0.5 - 99.0%
		Fructose – glucose Ratio	IS 4941 : 1994,	0.5-3.0%
		Tructose – grueose Ratio	MOHAFW Lab Manual 4	0.5-3.070
		Acidity	IS 4941 : 1994,	0.1-5.0%
			MOHAFW Lab Manual 4	3.1 3.070
		Ash	IS 4941 : 1994,	0.1 -50.0%
			MOHAFW Lab Manual 4	0.1 00.070
		Fiehe's test	IS 4941 : 1994,	Present/absent
			MOHAFW Lab Manual 4	
		Optical density	IS 4941 : 1994,	0.1 -5.0 %
		•	MOHAFW Lab Manual 4	

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LOCA	ATION 2			
		Free acidity	IS 4941 : 1994, MOHAFW Lab Manual 4	0.1-5.0%
28.	CHEWING GUM/	Moisture	MOHAFW	0.1 to 30.0%
	BUBBLE GUM/	Acid insoluble ash	MOHAFW Lab Manual 4	0.01 to 20.0%
	HARD	Gum base content	MOHAFW Lab Manual 4	1.0 to 60.0%
	BOILED SUGAR	Reducing Sugar	MOHAFW Lab Manual 4	1.0 to 25.0%
	CONFECT-	sucrose	MOHAFW Lab Manual 4	1.0 to 99.0%
	IONARY	Sulphated ash	MOHAFW Lab Manual 4	0.1 to 20.0%
29.	MILK TOFFEE/	Total protein	MOHAFW Lab Manual 4	0.1 to 30.0%
	BUTTER TOFFEE	Fat content	MOHAFW Lab Manual 4	0.1 to 15%
30.	LOZENGES	Sucrose content	MOHAFW Lab Manual 4	20 – 95%
31.	READY TO EAT	Protein	IS9487:1980(Reaff.2005)	0.2 - 60.0%
	SNACKS	Moisture	IS9487:1980(Reaff.2005)	0.1 - 40.0%
		Total ash	IS9487:1980(Reaff.2005)	0.1 - 30.0%
		Acid insoluble ash	IS9487:1980(Reaff.2005)	0.01 - 20.0 %
		Crude fiber	IS9487:1980(Reaff.2005)	0.2 - 50.0%
		fat	IS9487:1980(Reaff.2005)	0.2- 70.0%
		Free fatty acid	IS9487:1980(Reaff.2005)	0.1 - 15.0%
		Peroxide value	IS9487:1980(Reaff.2005)	0.1 - 50.0meq/kg
32.	NAMKEEN	Protein	MOHAFW Lab Manual 3	0 - 60.0%
		fat	IS 15271:2003	1 - 70.0%
		Moisture	IS 15271:2003	1.0 - 40.0%
		B.R. of extracted fat	MOHAFW Lab Manual 2	$30.0 - 80.0^{\circ}$ c
		sugar	MOHAFW Lab Manual 4	1.0 - 40.0%
		salt	MOHAFW Lab Manual 1	1.0 - 50.0%
		Total ash	IS 15271:2003	0.1 -30.0%
		Acid insoluble ash	IS 15271:2003	0.01 - 20.0%

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LOCA	ATION 2			
33.	SWEETS	Moisture	MOHAFW	1.0 -70.0%
	SWEETS	sugar	MOHAFW	2- 80%
		Identification of fat	MOHAFW	Present/absent
		Total fat	MOHAFW	1.0 - 70.0%
		Acid insoluble ash	MOHAFW	0.01-20.0%
34.	NUTRITIONAL	Calorific value	Pearson's chemical analysis of foods	20 -1000 kcal
	VALUE IN FOOD	carbohydrate	MOHAFW	1.0 - 95.0%
		Moisture	MOHAFW	0.1 - 80.0%
		Fat	MOHAFW	0.1 - 80.0%
		Protein	MOHAFW	0.1 - 80.0%
		Sugar	MOHA FW	0 to 95%
35.	NON	Sugar Content	IS 2346:1992 (Reaffirmed 2009)	1.0 - 10.0
	ALCOHOLIC	Arsenic	IS 6854:1973 (Reaffirmed 2009)	0.1 - 0.5ppm
		Copper	IS 6854:1973 (Reaffirmed 2009)	0.1 - 5.0ppm
		Lead	IS 6854:1973 (Reaffirmed 2009)	0.1 - 5.0ppm
		Iron	IS 6854:1973 (Reaffirmed 2009)	0.1 - 5.0ppm
36.	TEA AND TEA	Total ash	MOHAFW, Lab Manual 4	0.10-50.0%
	PRODUCTS	Water soluble ash	MOHAFW, Lab Manual 4	0.10-80.0%
		Acid soluble ash	MOHAFW, Lab Manual 4	0.10-20.0%
		Alkalinity of water soluble ash	MOHAFW, Lab Manual 4	0.10-20.0%
		Water extract	MOHAFW, Lab Manual 4	0.1 -90.0%
		Crude fiber	MOHAFW, Lab Manual 4	0.3 -50.0%
		Moisture	MOHAFW, Lab Manual 4	0.1-90.0%
37.	CHEWING	Moisture	IS: 9379:2008	1.0 - 25.0%
	TOBACCO	Acid Insoluble ash	IS 5643:1999(Reaffirmed 2009)	0.1-10.0%
	ZARDA	Nicotine Content	IS 5643:1999(Reaffirmed 2009)	1.0 - 10.0%
		Purity of added silver leaves	IS :3110	Upto 99.9%
		Total ash	IS 5643:1999(Reaffirmed 2009)	5.0 - 35.0%

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LOCA	ATION 2			
38.	CATECHU	Loss on drying	IS 4359 - 1967	1.0 to 50.0%
		Water insoluble residue	IS 4359 - 1967	1.0 to 60.0%
		Alcohol insoluble residue	IS 4359 - 1967	1.0 to 60.0
		Total ash	IS 4359 - 1967	0.1 to 50.0%
		Acid insoluble ash	IS 4359 - 1967	0.1 to 20.0%
		Catechin content	IS 4359 - 1967	1.0 to 90.0%
39.	WATER/	C.O.D	APHA: 5220-1998	>5 mg/1
	EFFLUENT	B.O.D	APHA: 5210 - B1998	>5 mg/1
			IS: 3025 (P-44)-1998	
		Oil/ Grease	APHA: 5220 - D1998	2-100 mg/1
			IS: 3025 (P-39)-1998	C
		Sulphates	APHA: 4500 - E1998	10-1000 mg/1
		-	IS: 3025 (P-24)-2000	_
		Chloride	APHA: 4500 - B1998	10-1000 mg/1
			IS: 3025 (P-32)-1998	-
		Total Hardness	APHA: 2340 - C1998	2-1000 mg/1
			IS: 3025-1999	G
		Solids	APHA: 2540 - 1998	10-5000 mg/1
			IS: 3025 (P-16)-1998	C
		Suspended Solids	APHA: 2540 - 1998	5-100 mg/1
		-	IS: 3025 (P-17)-1993	_
		pН	APHA: 4500 - 1998	0.1-13.9
		•	IS: 3025 (P-2)-2002	
		Total Alkalinity	APHA: 2320 - B1998	2-100 mg/1
		•	IS: 3025 (P-23)-1999	_
		Nitrogen (Ammonia)	APHA: 4500 - B1998	4-100 mg/1
		-	IS: 3025 (P-34)-1992	-
		Color	APHA: 2120 - B1998	5-50 Hazen units
			IS: 3025 (P-4)-1996	
		Turbidity	APHA: 2130 - B1998	1-100 NTU
		•	IS: 3025 (P-10)-1998	

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LOCA	ATION 2			
		Calcium as Ca	APHA: 3500 - B1998 IS: 3025 (P-40)-1996	2-100 mg/l
		Chromium	APHA: 3500 - 1998	0.5-50 mg/1
		Conductivity	APHA: 2510 - B1998	1-10000 micro omhos/
		•	IS: 3025 (P-14)-2001	cm
		Cyanide as CN	APHA: 4500 - D1998	0.1-50 mg/1
		•	IS: 3025 (P-27)-1999	C
		Fluoride as F	APHA: 4500 - D1998	0.1-10 mg/1
		Iron as Fe	APHA: 3500 Fe - B1998	1-100 mg/1
		Lead	APHA: 3500 - B1998	0.1-100 mg/1
			IS: 3025 (P-37)-1994	C
		Manganese as Mn	APHA: 3500 - B1998	2-100 mg/1
		Magnesium as Mg	APHA: 3500 - B1998	4-100 mg/1
			IS: 3025 (P-36)-1994	2
		Nitrite as NO ₂	APHA: 4500 - D1998	0.1-1000 mg/1
		Odour	APHA: 2150 - B1998	Qualitative
			IS: 3025 (P-5)-1991	
		Phosphate as PO ₄	APHA: 4500 - D1998	1-1000 mg/1
		Potassium	APHA: 3500 K - B1998	2-200 mg/1
			IS: 3025 (P-35)-1993	8
		Volatile Residue	APHA: 2540 - 1998	0.1-5 mg/1
		Residual Free Chlorine	APHA: 4500 F - B1998	1-100 mg/1
			IS:3025 (P-26)-1998	2
		Sodium as Na	APHA: 3500 Na - B1998	1-100 mg/1
			IS: 3025 (P-45)-1993	Ç
		Silica as SiO ₂	APHA: 4500 Na - 1998	2-100 mg/1
		-	APHA: 5210 B1998	5-50 mg/1
		Dissolved Oxygen	IS; 3025 (pt 38)-1989	1-10 ppm
		Bi carbonate	IS: 3025 (P-51)-2001	11
		Boron	IS: 3025 (P-57)-2005	0.5-5 mg/l
		Aluminium	IS: 3025 (P-55)-2003	0.01-0.1 mg/l
		Cadmium	IS: 3025 (P-41)-1992	0.005-0.1 mg/l

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LOCA	ATION 2			
		Copper	IS: 3025 (P-42)-1992	0.005-0.1 mg/l
		Nitrate	IS: 3025 (P-34)-1988	0.01-100 mg/l
		Zinc	IS: 3025 (P-49)-1994	1-20 ppm
		Sulphide	IS: 3025 (P-29)-1986	0.01-0.1 ppm
		Phenolic Compound	IS: 3025 (P-54)-1964	0.0005-0.005mg/l
		Mercury	IS: 10500-1991	0.0005-0.005mg/l
		TDS	IS: 3025 (P-16)-1984	1-1000 ppm