

**Laboratory** FSA Laboratories Private Limited, No. 3/842, Senneerkuppam, Avadi Bypass Road, Junction Poonamalle, Chennai, Tamil Nadu

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

**Certificate Number** TC-6732

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**Validity** 12.01.2018 to 11.01.2020

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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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**BIOLOGICAL TESTING**

<b>I. FOOD &amp; AGRICULTURAL PRODUCTS</b>				
1.	<b>Milk and Dairy Products (Raw and processed, Processed Infant Food Milk powder, Cheese, Butter)</b>	Total Plate count	IS 5402	≥10 cfu/g ≥1 cfu/mL
			USFDA: BAM, Chapter 3-8th Edn.	≥10 cfu/g ≥1cfu/mL
		Coliforms Enumeration method	IS 5401: (Part 1)	≥1 cfu/mL ≥10 cfu/g
			USFDA-BAM, Chapter 4-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		MPN Method	IS 5401: (Part 2)	< 0.3 to ≥110 MPN/g or ml
			USFDA-BAM, Chapter 4-8th Edn.	< 3 to ≥1100 MPN/g or ml
		Escherichia coli Enumeration method	IS 5887(Part1)	≥10 cfu/g ≥1 cfu/mL
			USFDA-BAM, Chapter 4-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		MPN Method	IS 5887(Part1)	< 0.3 to ≥110 MPN/g or ml
			USFDA-BAM, Chapter 4-8th Edn.	< 3 to ≥1100 MPN/g or ml
		Salmonella Sp.	IS 5887(Part3)	Qualitative Present or Absent /25g or ml
			USFDA-BAM Chapter 5-8th Edn.	Qualitative Present or Absent /25g or ml
		Shigella Sp.	IS 5887(Part7)	Qualitative Present or Absent /25g or ml

**Pooja Singh**  
Convenor

**N. Venkateswaran**  
Program Director

Laboratory

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			USFDA-BAM Chapter 6-8 <sup>th</sup> Edn.	Qualitative Present or Absent /25g or ml	
		Staphylococcus aureus	IS5887(Part2)	≥10 cfu/g ≥1 cfu/mL	
			USFDA-BAM, Chapter 12-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g	
		Yeast & Moulds	IS 5403 / APHA	≥10 cfu/g ≥1 cfu/mL	
			USFDA-BAM, Chapter 18-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g	
		Listeria monocytogenes	USFDA-BAM, Chapter 10-8 <sup>th</sup> Edn.	Qualitative Present or Absent /25g or ml	
		Aerobic spore count	APHA Compendium of Methods for the Microbiological Examination of foods– Fifth Edition, Chapter 23, PgNo:299.	≥10 spore/g ≥1 spore/mL	
		Anaerobic spore count	APHA Compendium of Methods for the Microbiological Examination of foods –Fifth Edition, Chapter 24, PgNo:305	≥1 spore/mL ≥10 spore/g	
2.	Non alcoholic and Alcoholic Beverages (Soft Drinks, Carbonated Beverages, Sweetened Carbonated Beverages)	Total Plate count	IS 5402	≥10 cfu/g ≥1 cfu/mL	
			USFDA: BAM, Chapter 3-8 <sup>th</sup> Edn.	≥1 cfu/mL	
					≥10 cfu/g
		Coliforms Enumeration method	IS 5401:(Part1)		≥10 cfu/g ≥1 cfu/mL
				USFDA-BAM, Chapter 4-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g

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		MPN Method	IS 5401:(Part2)	0.3 to >110 MPN/g or ml
			USFDA-BAM, Chapter 4-8th Edn.	3 to >1100 MPN/g or ml
		Detection	IS 5402	Qualitative Present or Absent /100 ml
		Yeast & Moulds	IS 5403	≥10 cfu/g
				≥1 cfu/mL
			USFDA-BAM, Chapter18-8th Edn.	≥1 cfu/mL
				≥10 cfu/g
3.	Herbs, Spices & Condiments (Saffron, Split Cassia, Cloves, Mace, Garlic Powder)	Total Plate count	IS 5402	≥10 cfu/g
				≥1 cfu/mL
			USFDA: BAM, Chapter 3-8th Edn.	≥10 cfu/g
		Coliforms Enumeration method	IS 5401:(Part 1)	≥10 cfu/g
				≥1 cfu/mL
			USFDA-BAM, Chapter 4-8th Edn.	≥10 cfu/g
		MPN Method	IS 5401:(Part2)	< 0.3 to ≥110 MPN/g or ml
			USFDA-BAM, Chapter 4-8th Edn.	< 3 to ≥1100 MPN/g or ml
		Escherichia coli Enumeration method	IS 5887(Part 1)	≥10 cfu/g
				≥1 cfu/mL
			USFDA-BAM, Chapter 4-8th Edn.	≥10 cfu/g
		MPN Method	IS 5887(Part 1)	<0.3 to ≥110 MPN/g or ml
			USFDA-BAM, Chapter 4-8th Edn.	< 3 to ≥1100 MPN/g or ml
		Faecal Coliforms	USFDA (BAM)- Chapter -4-8thEdn.	< 3 to ≥1100 MPN/g or ml
		Salmonella Sp.	IS 5887(Part 3)	Qualitative Present or Absent /25g or ml

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			USFDA-BAM, Chapter 5-8th Edn.	Qualitative Present or Absent /25g or ml
		Shigella Sp.	IS 5887(Part 7)	Qualitative Present or Absent /25g or ml
			USFDA-BAM, Chapter 6-8th Edn.	Qualitative Present or Absent /25g or ml
		Staphylococcus aureus	IS 5887(Part 2)	≥10 cfu/g ≥1 cfu/mL
			USFDA-BAM, Chapter 12-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		Bacillus cereus (i)MPN method	USFDA-BAM, Chapter- 14-8th Edn.	< 3 to ≥1100 MPN/g or ml
		(ii) Enumeration method	IS 5887 Part 6	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM-Chapter- 14-8thEdn	≥10 cfu/g ≥1 cfu/mL
		Yeast & Moulds	IS 5403	≥1 cfu/mL
				≥10 cfu/g
			USFDA BAM, Chapter 18-8th Edn.	≥1 cfu/mL ≥10 cfu/g
4.	<b>Cereals, Pulses and Products (Black Matpe/ Green Peas/ Chickpeas/ Toor/ Green Moong/ Red Lentils, Red Lentils/ Green Moongs)</b>	Total Plate count	IS 5402	≥10 cfu/g
			USFDA BAM,Chapter 3-8thEdn.	≥10 cfu/g
		Coliforms Enumeration method	IS 5401:(Part 1)	≥10 cfu/g
			USFDA BAM, Chapter 4-8th Edn.	≥10 cfu/g
		MPN Method	IS 5401:(Part 2)	< 0.3 to ≥110 MPN/g or ml
			USFDA BAM,Chapter 4-8th Edn.	< 3 to ≥1100 MPN/g or ml

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		Escherichia coli Enumeration method	IS 5887(Part 1) USFDA BAM, Chapter 4-8th Edn.	≥10 cfu/g ≥10 cfu/g
		MPN Method	IS 5887(Part 1) USFDA BAM, Chapter 4-8th Edn.	<0.3to≥110 MPN/g or ml <3 to≥1100 MPN/g or ml
		Salmonella Sp.	IS 5887(Part 3) USFDA BAM, Chapter 5-8th Edn.	Qualitative Present or Absent /25g or ml Qualitative Present or Absent /25g or ml
		ShigellaSp.	IS5887(Part 7) USFDA BAM, Chapter 6-8th Edn.	Qualitative Present or Absent /25g or ml Qualitative Present or Absent /25g or ml
		Staphylococcus aureus	IS 5887(Part2) USFDA BAM, Chapter12-8th Edn.	≥10 cfu/g ≥10 cfu/g
		Yeast & Moulds	IS 5403 USFDA BAM, Chapter 18-8th Edn.	≥10 cfu/g ≥10 cfu/g
		Bacillus cereus MPN method	USFDA BAM-Chapter-14-2001-8th Edn.	< 3 to≥1100 MPN/g or ml
		Enumeration method	IS 5887 Part 6 USFDA BAM-Chapter-14-8th Edn	≥10 cfu/g ≥10 cfu/g

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5.	Fruits and Vegetables Products (Fresh/Raw/ Frozen/Canned/ Processed / Thermally Processed Foods/ Sauce/ Fruit Juice/Juice Concentrate/ Ice Cool Baby Corn (Whole) (Canned), Mushroom	Total Plate count	IS 5402	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 3-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g
		Coliforms Enumeration method	IS 5401:(Part1)	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g
		MPN Method	IS 5401:(Part2)	< 0.3 to ≥110 MPN/g or ml
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	< 3 to ≥1100 MPN/g or ml
		Escherichia coli Enumeration method	IS 5887(Part1)	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g
		MPN Method	IS 5887(Part1)	< 0.3to≥110 MPN/g or ml
			USFDA-BAM, Chapter 4-8 <sup>th</sup> Edn.	< 3 to ≥1100 MPN/g or ml
		Faecal Coliforms	USFDA (BAM)-Chapter-4.2002-8 <sup>th</sup> Edn.	<3 to ≥1100 MPN/g or ml
		Salmonella Sp.	IS 5887(Part 3)	Qualitative Present or Absent /25g or ml
	USFDA-BAM-Chapter 5-8 <sup>th</sup> Edn.	Qualitative Present or Absent /25g or ml		
Shigella Sp.	IS 5887(Part 7)	Qualitative Present or Absent /25g or ml		
	USFDA BAM, Chapter 6-8 <sup>th</sup> Edn.	Qualitative Present or Absent /25g or ml		

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		Staphylococcus aureus	IS 5887(Part 2)1976,Reaff 2013	≥10 cfu/g ≥1 cfu/mL
			USFDA-BAM, Chapter 12-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		Vibrio Cholerae	IS 5887 Part 5	Qualitative Present or Absent /25g or ml
			USFDA BAM,Chapter 9.2004-8th Edn.	Qualitative Present or Absent /25g or ml
		Yeast & Moulds	IS 5403	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter18-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		Flat sour organism	APHA-5th Edition Chapter 25	≥10 cfu/g or ml
		Incubation at 37 °C for 10days and 55 °C for 7days	APHA- 5th Edn., 61.51	No change in pH
		Listeria monocytogenes	USFDA-BAM, Chapter10-8th Edn.	Qualitative Present or Absent /25g or ml
6.	<b>Meat &amp; Meat Products, (Raw, Cooked, Frozen, dried food Canned meat (Canned Luncheon/Canned Cooked Ham/ Canned Chopped Meat/ Canned Chicken/Canned Mutton and Goat Meat)</b>	Total Plate Count	IS 5402	≥10 cfu/g
		Total Plate count	USFDA BAM, Chapter 3-8th Edn.	≥10 cfu/g
		Coliforms Enumeration method	IS 5401:(Part 1)	≥10 cfu/g
			USFDA-BAM, Chapter 4-8thEdn.	≥10 cfu/g
		MPN Method	IS 5401:(Part 2)	< 0.3 to ≥110 MPN/g
			USFDA-BAM, Chapter 4-8th Edn.	< 3 to ≥1100 MPN/g
		Escherichia coli Enumeration method	IS 5887(Part 1)	≥10 cfu/g

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			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	≥10 cfu/g
		(ii)MPN Method	IS 5887(Part 1)	< 0.3to ≥110 MPN/g
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	< 3 to ≥1100 MPN/g
		Salmonella Sp.	IS5887(Part 3)	Qualitative Present or Absent/25g
			USFDA BAM Chapter 5-8 <sup>th</sup> Edn.	Qualitative Present or Absent/25g
		ShigellaSp.	IS5887(Part7)	Qualitative Present or Absent/25g
			USFDA BAM Chapter 6-8 <sup>th</sup> Edn.	Qualitative Present or Absent/25g
		Staphylococcus aureus	IS 5887(Part 2)	≥10 cfu/g
			USFDA BAM, Chapter 12-8 <sup>th</sup> Edn.	≥10 cfu/g
		Vibrio parahaemolyticus	IS 5887Part 5	Qualitative Present or Absent/25g
			USFDA BAM-Chapter 9. 8 <sup>th</sup> Edn./APHA	Qualitative Present or Absent/25g
		Vibrio Cholerae	IS 5887 Part 5:1976,Reaff 2013	Qualitative Present or Absent/25g
			USFDA BAM-Chapter9-8 <sup>th</sup> Edn.	Qualitative Present or Absent/25g
		Yeast & Moulds	IS 5403	≥10 cfu/g
			USFDA BAM, Chapter 18-8 <sup>th</sup> Edn.	≥10 cfu/g
		Bacillus cereus MPN method	USFDA-BAM-Chapter-14--8 <sup>th</sup> Edn.	< 3 to ≥1100 MPN/g
		Enumeration method	IS 5887 Part 6	≥10 cfu/g
			USFDA-BAM-Chapter-14-8 <sup>th</sup> Edn	≥10 cfu/g

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		Clostridium perfringens	USFDA-BAM, Chapter-16-8th Edn.	Qualitative Present or Absent/25g
			IS 5887 Part 4	Qualitative Present or Absent/25g
		Listeria monocytogenes	USFDA-BAM, Chapter10-8th Edn.	Qualitative Present or Absent/25g
		Incubationat 37°C for10 days and 55°C for 7days	APHA 5thEdn.,61.51	No change in pH
7.	<b>Fish &amp; Fishery Products (Raw/Salted/canned)</b>	Total Plate count	IS 5402	≥10 cfu/g
			USFDA BAM, Chapter3-8th Edn.	≥10 cfu/g
		Coliforms Enumeration method	IS 5401:(Part 1)	≥10 cfu/g
			USFDA BAM, Chapter4-8th Edn.	≥10 cfu/g
		MPN Method	IS 5401:(Part 2)	< 0.3 to ≥110 MPN/g
			USFDA BAM, Chapter 4-8th Edn.	< 3 to ≥1100 MPN/g
		Escherichia coli Enumeration method	IS 5887(Part1)	≥10 cfu/g
			USFDA BAM, Chapter4-8th Edn.	≥10 cfu/g
		MPN Method	IS 5887(Part 1)	< 0.3to>≥110 MPN/g
			USFDA BAM, Chapter 4-8th Edn.	< 3 to≥1100 MPN/g
		Salmonella Sp.	IS 5887(Part 3)	Qualitative Present or Absent/25g
			USFDA BAM Chapter 5-8th Edn./APHA	Qualitative Present or Absent/25g
		Shigella Sp.	IS 5887(Part 7)	Qualitative Present or Absent/25g
			USFDA BAM, Chapter 6-8th Edn./APHA	Qualitative Present or Absent/25g

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		Staphylococcus aureus	IS 5887(Part 2)	≥10 cfu/g
			USFDA BAM, Chapter 12-8th Edn.	≥10 cfu/g
		Vibrio parahaemolyticus	IS 5887Part 5	Qualitative Present or Absent/25g
			USFDA BAM, Chapter 9. 8thEdn./APHA	Qualitative Present or Absent/25g
		Vibrio Cholerae	IS 5887Part 5	Qualitative Present or Absent/25g
			USFDA BAM, Chapter 9. - 8th Edn.	Qualitative Present or Absent/25g
		Clostridium perfringens	USFDA-BAM,Chapter-16-8th Edn.	Qualitative Present or Absent/25g
			IS5887Part4	Qualitative Present or Absent/25g
		Listeria monocytogenes	USFDA-BAM, Chapter 10-8th Edn.	Qualitative Present or Absent/25g
		Incubation at 37°C for 7 days	APHA 5th Edn., 61.51	No change in pH
8.	<b>Nuts and Nuts Products (Cashew Nuts/Raw (Or) Processed Cashew Nuts</b>	Total Plate count	IS 5402	≥10 cfu/g
			USFDA BAM, Chapter 3-8th Edn.	≥10 cfu/g
		Coliforms	IS 5401:(Part 1) Reaff 2012	≥10 cfu/g
		Enumeration method	USFDA BAM, Chapter 4-8th Edn.	≥10 cfu/g
		MPN Method	IS 5401:(Part 2)	< 0.3to≥110 MPN/g
			USFDA BAM, Chapter 4-8th Edn.	< 3 to≥1100 MPN/g
		Escherichia coli Enumerationmethod	IS5887(Part1)	≥10 cfu/g
			USFDA BAM, Chapter 4-8th Edn.	≥10 cfu/g

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		MPN Method	IS 5887(Part 1)	< 0.3to≥110 MPN/g
			USFDA BAM, Chapter 4-8th Edn.	< 3 to≥1100 MPN/g
		Staphylococcus aureus	IS 5887(Part 2)	≥10 cfu/g
			USFDA BAM, Chapter12-8thEdn.	≥10 cfu/g
		Bacilluscereus MPN method	USFDA BAM, Chapter-14-8th Edn.	< 3 to≥1100 MPN/g
		Enumeration method	IS 5887 Part6	≥10 cfu/g
			USFDABAM-Chapter-14-8th Edn	≥10 cfu/g
		Yeast & Moulds	IS 5403	≥10 cfu/g
			USFDA BAM, Chapter18-8th Edn.	≥10 cfu/g
		Salmonella Sp.	IS 5887(Part 3)	Qualitative Present or Absent/25g
			USFDA BAM Chapter 5-8th Edn.	Qualitative Present or Absent/25g
		Shigella Sp.	IS 5887(Part 7)	Qualitative Present or Absent/25g
			USFDA BAMChapter6-8th Edn.	Qualitative Present or Absent/25g
9.	<b>Bakery &amp; Confectionery Products (Chocolates / Ice Lollies/ Edible Ice Candy)</b>	Total Plate count	IS 5402	≥10 cfu/g
				≥1 cfu/mL
			USFDA BAM, Chapter 3-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		Coliforms Enumeration method	IS 5401:(Part 1)	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 4-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		MPN Method	IS5401:(Part 2)	< 0.3 to ≥110 MPN/g or ml

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			USFDA BAM, Chapter 4-8th Edn.	< 3 to ≥1100 MPN/g or ml
		Escherichiacoli Enumeration method	IS 5887(Part 1)	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 4-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		MPN Method	IS 5887(Part 1)	< 0.3 to ≥110 MPN/g or ml
			USFDA BAM, Chapter 4-8th Edn.	< 3 to ≥1100 MPN/g or ml
		Yeast & Moulds	IS 5403	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 18-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		Salmonella Sp.	IS 5887(Part 3)	Qualitative Present or Absent /25g or ml
			USFDA BAM Chapter 5-8th Edn.	Qualitative Present or Absent /25g or ml
		Listeria monocytogenes	USFDA BAM, Chapter 10-8th Edn.	Qualitative Present or Absent /25g or ml
		Staphylococcus aureus	IS 5887(Part 2)	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 12-8th Edn.	≥1 cfu/mL ≥10 cfu/g
10.	Snacks and Instant Mixes/ Ready to Eat Food	Total Plate count	IS 5402	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 3-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		Coliforms Enumeration method	IS 5401:(Part 1)	≥10 cfu/g ≥1 cfu/mL

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			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g
		MPN Method	IS 5401:(Part 2)	< 0.3 to ≥110 MPN/g or ml
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	< 3 to ≥1100 MPN/g or ml
		Escherichia coli Enumeration method	IS 5887(Part 1)	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g
		MPN Method	IS 5887(Part 1)	< 0.3to ≥110 MPN/g or ml
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	< 3 to ≥1100 MPN/g or ml
		Staphylococcus aureus	IS 5887(Part 2)	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 12-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g
		Yeast & Moulds	IS 5403	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 18-8 <sup>th</sup> Edn.	≥10 cfu/g ≥1 cfu/mL
		Salmonella Sp.	IS 5887(Part 3):1999,Reaff 2013	Qualitative Present or Absent /25g or ml
			USFDA BAM-Chapter 5-8 <sup>th</sup> Edn.	Qualitative Present or Absent /25g or ml
		Shigella Sp.	IS 5887(Part7)	Qualitative Present or Absent /25g or ml
			USFDA BAM Chapter 6-8 <sup>th</sup> Edn.	Qualitative Present or Absent /25g or ml

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11.	Food Additives/ Other Food Products	Total Plate count	IS 5402	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 3-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g
		Coliforms Enumeration method	IS 5401:(Part1)	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g
		MPN Method	IS 5401:(Part2)	< 0.3 to ≥110 MPN/g or ml
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	<3 to ≥1100 MPN/g or ml
		Escherichiacoli Enumeration method	IS5887(Part1)	≥10 cfu/g ≥1 cfu/mL
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	≥1 cfu/mL ≥10 cfu/g
		MPN Method	IS 5887(Part 1)	<0.3to≥110 MPN/g or ml
			USFDA BAM, Chapter 4-8 <sup>th</sup> Edn.	<3 to≥1100 MPN/g or ml
		Salmonella Sp.	IS 5887(Part 3)	Qualitative Present or Absent /25g or ml
			USFDA BAM Chapter5-8 <sup>th</sup> Edn.	Qualitative Present or Absent /25g or ml
		Shigella Sp.	IS 5887(Part 7)	Qualitative Present or Absent /25g or ml
			USFDA BAM Chapter 6-8 <sup>th</sup> Edn.	Qualitative Present or Absent /25g or ml
Staphylococcus aureus	IS 5887(Part 2)	≥10 cfu/g ≥1 cfu/mL		

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			USFDA BAM, Chapter 12-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		Yeast & Moulds	IS 5403	≥10 cfu/g
				≥1 cfu/mL
			USFDA BAM, Chapter 18-8th Edn.	≥1 cfu/mL ≥10 cfu/g
		Vibrio Cholerae	IS 5887Part5	Qualitative Present or Absent /25g or ml
			USFDA BAM-Chapter 9. -8th Edn.	Qualitative Present or Absent /25g or ml
<b>II.</b>	<b>WATER</b>			
<b>1.</b>	<b>Drinking Water</b>	Coliforms	IS 1622	<2 to ≥1600 MPN/100ml Qualitative Present or Absent/100 ml
		Faecal Coliforms	IS 1622	<2 to ≥1600 MPN/100ml
		E.coli	IS 1622	<2 to ≥1600 MPN/100ml, Qualitative Present or Absent/100 ml
<b>2.</b>	<b>Water or Swimming Pool and Spas</b>	Standard Plate Count	IS3328	≥1 cfu/mL
		Coliforms	IS1622	<2 to ≥1600 MPN/100ml
<b>3.</b>	<b>Water for Processed Food Industry</b>	Standard Plate Count	IS1622	≥1 cfu/mL
		Coliforms	IS1622	1 to ≥1600 MPN/100ml
		Proteolytic count	IS 4251	≥1 cfu/mL
		Lipolytic Count	IS 4251	≥1 cfu/mL
		Thermophillic bacteria	IS 4251	≥1 cfu/mL

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4.	Raw Water/ Bore Well Water/Treated Water/De- Mineralized Water	Total Plate Count	IS1622	≥1 cfu/mL
			APHA 9215 B	≥1 cfu/mL
		Coliforms	IS 1622	<2 to ≥1600 MPN/100ml
			APHA -9221B	<1.8 to ≥1600 MPN/100 ml
		Faecal Coliforms	IS 1622	<2 to ≥1600 MPN/100ml
			APHA,9221E	<1.8 to ≥1600 MPN/100ml
5.	Packaged Drinking Water (Other than Packaged Mineral Water & Packaged Natural Mineral Water)	Total viable colony count @37°C for 24hrs.	IS 5402	≥1 cfu/mL
		Total viable colony count at 22°C for 72hrs.	IS 5402	≥1 cfu/mL
		Coliforms	IS 15185	Qualitative Present/Absent/250ml
		E.coli	IS 15185	Qualitative Present/Absent/250ml
		Pseudomonas aeruginosa	IS 13428:Annex D	Qualitative Present/Absent/250ml
		Sulphite reducing anaerobes	IS 13428:Annex C	Qualitative Present/Absent/250ml
		Yeast and Mould	IS5403	Qualitative Present/Absent/250ml
		Staphylococcus aureus	IS 5887Part 2	Qualitative Present/Absent/250ml
		Shigella Sp	IS 5887 Part 7	Qualitative Present/Absent/250ml
		Salmonella Sp.	IS 15187:2016	Qualitative Present/Absent/250ml
		Vibrio cholerae	IS5887 Part 5	Qualitative Present/Absent/250ml
		Vibrio Parahaemolyticus	IS 5887 Part 5	Qualitative Present/Absent/250ml

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<b>III.</b>	<b>ENVIRONMENT AND POLLUTION</b>			
<b>1.</b>	<b>Testing of Classified Area (Environment Sample-Air monitoring)</b>	Total Plate count	Compendium of Methods for the Microbiological Examination of Foods- APHA#5th Edn.2015	≥1Cfu/plate
		Yeast and Mould	Compendium of Methods for the Microbiological Examination of Foods- APHA#5th Edn.2015	≥1 Cfu/plate
		Coliforms	Compendium of Methods for the Microbiological Examination of Foods- APHA#5th Edn.2015	≥1 Cfu/plate
<b>2.</b>	<b>Testing of Classified Area (Environment Sample-Surface Swab Test)</b>	Total Plate count	Compendium of Methods for The Microbiological Examination of Foods- APHA#5th Edn.2015	≥1Cfu/cm2
		Yeast and Mould	Compendium of Methods for The Microbiological Examination of Foods- APHA#5th Edn.2015	≥1Cfu/cm2
		Coliforms	Compendium of Methods for the Microbiological Examination of Foods- APHA#5th Edn.2015	≥1Cfu/cm2
<b>3.</b>	<b>Waste Water/Raw and Treated Effluent/Raw and Treated Sewage</b>	Total Plate Count	APHA -9215-B	≥1 cfu/mL
		Coliforms	APHA -9221-B	<1.8 to ≥1600 MPN/100ml
		Faecal Coliforms	APHA -9221-E	<1.8 to ≥1600 MPN/100ml
		E.coli	APHA -9221-F	<1.8 to ≥1600 MPN/100ml

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### CHEMICAL TESTING

I.	WATER			
1.	Waste Water/ Raw & Treated Liquid Effluents/Raw Treated/ Sewage Water	Temperature	IS:3025 (Part- 09)	20 – 60°C
		Odour	IS:3025 (Part 05)	Qualitative Agreeable/Disagreeable
		Turbidity	IS:3025 (Part 10)	0.1-400 NTU
		pH value	IS:3025 (Part 11)	2 - 12
		Electrical conductivity	APHA -2510 B	1-50000 µmhos/cm
		Total Suspended solids	IS:3025 (Part 17)	2-50000 mg/L
		Total Dissolved Solids	IS:3025 (Part 16)	2-50000 mg/L
		Total Solids	IS:3025 (Part 15)	2-50000 mg/L
		Fixed Solids	IS:3025 (Part 18)	2-50000 mg/L
		Volatile Solids	IS:3025 (Part 18)	2-50000 mg/L
		Sludge Volume Index	APHA – 2710 D	2-50000 mg/L
		Chlorides as Cl	IS:3025 (Part 32)	1-10000 mg/L
		Sulphates as SO <sub>4</sub>	APHA– 4500. SO <sub>4</sub> .E	1 – 10000 mg/L
		Alkalinity as CaCO <sub>3</sub>	IS:3025 (Part 23)	1 – 10000 mg/L
		Total Alkalinity as CaCO <sub>3</sub>	IS:3025 (Part 23)	1 – 10000 mg/L
		Total Hardness as CaCO <sub>3</sub>	APHA -2340 C B	1-5000 mg/L
		Calcium Hardness as CaCO <sub>3</sub>	APHA -3500 Ca.B	1-3000mg/L
		Magnesium Hardness as CaCO <sub>3</sub>	APHA-3500 Mg.B	1-2000 mg/L
		Calcium as Ca	APHA -3500 Ca.B	0.4 – 2000 mg/L
		Magnesium as Mg	APHA -3500 Mg.B	1-2000 mg/L
Total Iron as Fe	APHA - 3500 Fe.B / 3111B	0.01 – 20 mg/L		
Dissolved Iron	APHA- 3500 Fe.B / 3111B	0.01 – 20 mg/L		
Total Acidity as CaCO <sub>3</sub>	IS:3025 (Part 22)	1 – 20000 mg/L		
Reactive Silica as SiO <sub>2</sub>	APHA. – 4500-SiO <sub>2</sub> D	0.02 – 200 mg/L		
Carbonate Hardness as CaCO <sub>3</sub>	FSA/CH/SOP/08 (Issue Dt:12-10-2017)	1-2000 mg/L		

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		Non - Carbonate Hardness as CaCO <sub>3</sub>	FSA/CH/SOP/08 (Issue Dt:12-10-2017)	1-2000 mg/L
		Free Carbon dioxide as CO <sub>2</sub>	APHA - 4500 CO <sub>2</sub>	1 – 100 mg/L
		Dissolved Oxygen as O <sub>2</sub>	IS:3025 (Part 38)	0.2 – 8.5 mg/L
		Chemical Oxygen Demand (COD)	IS:3025 (Part 58) APHA -5220 B/ 4500 O,C	4 – 50000 mg/L
		Biochemical Oxygen Demand (3days @ 27°C)	IS:3025 (Part 44)	2 -20000 mg/L
		Residual Chlorine as Cl	APHA - 4500 Cl.B	0.2 – 100 mg/L
		Nitrate Nitrogen as NO <sub>3</sub>	IS:3025 (Part 34)	1 – 100 mg/L
		Nitrite Nitrogen as NO <sub>2</sub>	IS:3025 (Part 34)	0.2 – 1000 mg/L
		Total Phosphorus as PO <sub>4</sub>	IS:3025 (Part 31)	0.05 – 50 mg/L
		Dissolved Phosphorus as PO <sub>4</sub>	IS:3025 (Part 31)	0.05 – 50 mg/L
		Hexavalent Chromium as Cr	IS:3025(Part 52)	0.03 – 20 mg/L
		Oil & Grease	APHA 22 <sup>nd</sup> Edn – 5520 O & G–B,C IS:3025 (Part 39)	5 – 1000 mg/L
		Sulphite as SO <sub>3</sub>	APHA- 4500 SO <sub>3</sub> B	2 - 50 mg/L
		Total Kjeldahl Nitrogen & Organic Nitrogen	IS:3025 (Part 34) APHA - 4500 N– B, C	1 – 50 mg/L
		Free Ammonia as NH <sub>3</sub>	IS:3025 (Part 34)	0.5 – 10 mg/L
		Ammonical Nitrogen as NH <sub>3</sub> .N	IS:3025 (Part 34) APHA - 4500 NH3 B C	1– 500 mg/L
		Fluoride as F	APHA -4500 F B, D/ IS:3025 (Part 60)	0.1– 10.0 mg/L
		Phenolic compound as C <sub>6</sub> H <sub>5</sub> OH	APHA - 5530 B, C, D IS:3025(Part 43)	0.01–3.0 mg/L
		Sulphide as S	APHA - 4500 S <sup>2-</sup> F IS:3025(Part 29))	1 – 100 mg/L
		Cyanide as CN	IS:3025 (Part 27) Amd 1 APHA - 4500 CN–C, E	0.01– 5 mg/L

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Appearance	APHA - 2110	Qualitative Physical appearance of Sample color
		Colour	APHA - 2120B IS:3025 (Part 4) Amd 1	1 – 100 Hazen
		Anionic surface active agents(as MBAS)	IS:13428-Annex-K	0.1 – 5.0mg/L
		Sodium as Na	IS 3025(Part 45)	1 - 500 mg/L
		Potassium as K	IS 3025(Part 45)	1 - 500 mg/L
		Silica as Si O <sub>2</sub>	IS 3025(Part 35) APHA-4500 SiO <sub>2</sub> C, D	1 -500 mg/L
2.	<b>Water/Drinking Water/Bore Well Water/Swimming Pool/ Water/ Reagent Grade Water/Construction Water/Boiler Water</b>	Color	IS: 3025 (Part 4)	1 – 100 Hazen
		Odour	IS:3025 (Part 5)	Qualitative Agreeable/Disagreeable
		pH Value	IS: 3025 (Part 11)	2-12
		Turbidity	IS: 3025 (Part 10)	0.5 -400 NTU
		Total Dissolved Solids	IS: 3025 (Part 16)	1-50000 mg/L
		Ammonia as NH <sub>3</sub>	IS: 3025 (Part 34)	0.01 – 20 mg/L
		Anionic surface active agents(as MBAS)	IS:13428 - Annex-K	0.1 - 1.0 mg/L
		Calcium as Ca	IS: 3025 (Part 40)	0.4 -2000 mg/L
		Chloramines as Cl <sub>2</sub>	IS:3025 (Part 26)	1.0 – 10.0 mg/L
		Chlorides as Cl <sup>-</sup>	IS: 3025 (Part 32)	1-10000 mg/L
		Fluoride as F	IS: 3025 (Part 60)	0.1– 10.0 mg/L
		Free Residual Chlorine as Cl <sub>2</sub>	IS:3025 (Part 26)	0.1 – 100 mg/L
		Total Iron as Fe	IS: 3025 (Part 53)	0.01-20 mg/L
		Nitrate as NO <sub>3</sub>	IS: 3025 (Part 34)	0.2 – 100 mg/L
		Phenolic compound as C <sub>6</sub> H <sub>5</sub> OH	IS: 3025 (Part 43)	0.01–3.0 mg/L
		Sulphates as SO <sub>4</sub>	IS: 3025 (Part 24)	1-10000 mg/L
			APHA 22 <sup>nd</sup> Edn. -4500 SO <sub>4</sub> <sup>2-</sup> B	
		Sulfide as S	IS: 3025 (Part 29)	0.02-4.0 mg/L

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Total Alkalinity as CaCO <sub>3</sub>	IS: 3025 (Part 23)	1-5000 mg/L
		Total Hardness as CaCO <sub>3</sub>	IS: 3025 (Part 21)	1-5000 mg/L
		Cyanide as CN	IS: 3025 (Part 27)- Amend 1	0.01– 5 mg/L
		Temperature	IS:3025 (Part 9)	0.1-100°C
		Appearance	APHA 22 <sup>nd</sup> Edn. – 2110	Qualitative Physical Appearance of Sample color
		Electrical Conductivity	IS 3025 (Part 14)	1-50,000 µmhos/cm
		Total Suspended Solids	IS: 3025 (Part 17)	2-50000 mg/L
		P-Alkalinity as CaCO <sub>3</sub>	IS: 3025 (Part 23)	1-5000 mg/L
		Caustic Alkalinity as CaCO <sub>3</sub>	APHA - 2320 B	1 – 1000mg/L
		Calcium Hardness as CaCO <sub>3</sub>	APHA -3500 Ca B	1-3000 mg/L
		Magnesium Hardness as CaCO <sub>3</sub>	APHA -3500 Mg B	1-2000 mg/L
		Carbonate Hardness as CaCO <sub>3</sub>	FSA/CH/SOP/08 (Issue Dt:12-10-2017)	1-2000 mg/L
		Non Carbonate Hardness as CaCO <sub>3</sub>	FSA/CH/SOP/08 (Issue Dt:12-10-2017)	1-2000 mg/L
		Total Acidity as CaCO <sub>3</sub>	IS: 3025 (Part 22)	1-20000 mg/L
		Reactive Silica as SiO <sub>2</sub>	APHA ,4500-SiO <sub>2</sub> D	0.02-100 mg/L
		Silica as SiO <sub>2</sub>	IS: 3025 (Part 35) APHA ,4500 SiO <sub>2</sub> C, D	0.2 -100 mg/L
		Free Carbon dioxide as CO <sub>2</sub>	APHA-4500 CO <sub>2</sub> -C	1-100 mg/L
		Hexavalent Chromium as Cr	IS: 3025 (Part 52)	0.02 – 20 mg/L
		Organic Solids	IS: 3025 (Part 18)	1-1000mg/L
		In Organic Solids	IS: 3025 (Part 18)	1-5000 mg/L
		Oxidizable Matter	IS: 1069	1-100 mg/L
		Dissolved Oxygen	IS: 3025 (Part 38) / APHA, 4500 O <sub>2</sub> B, C	0.2 -8.0 mg/L

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		Oxygen Consumed in 4 hrs	IS: 3025(Part 63)	0.1 – 100 mg/L
		Total Phosphorous as P	IS: 3025 (Part 31) / APHA,4500 P B, D	0.01- 100 mg/L
		Non-volatile residue	IS: 1069	1-10000 mg/L
		Borate as Boron	IS:13428 - Annex-H	0.5mg – 5.0mg/L
3.	Packaged Drinking Water / Natural Mineral Water	Color (True Color Units)	IS: 3025 (Part 4)	1 – 100 Hazen
		Odour	IS: 3025 (Part 5)	Qualitative Agreeable / Disagreeable
		Turbidity	IS: 3025(Part10)	1 – 400 NTU
		Total Dissolved Solids	IS: 3025 (Part 16)	10- 2000 mg/L
		pH	IS: 3025 (Part11)	2-12
		Iron as Fe	IS: 3025 (Part 53)	0.01 -20 mg/L
		Nitrate as NO <sub>3</sub>	IS: 3025 (Part 34)	1-100 mg/L
		Nitrite as NO <sub>2</sub>	IS: 3025 (Part 34)	0.01-10 mg/L
		Fluoride as F	IS: 3025 (Part 60)	0.1 – 5.0 mg/L
		Chloride as Cl <sup>-</sup>	IS: 3025 (Part 32)	1 – 1000 mg/L
		Sulphate as SO <sub>4</sub>	IS: 3025 (Part 24)	1-5000 mg/L
		Alkalinity as CaCO <sub>3</sub>	IS: 3025 (Part 23)	1 - 1000 mg/L
		Alkalinity as HCO <sub>3</sub>	IS: 3025 (Part 23)	1 - 1000 mg/L
		Calcium as Ca	IS: 3025 (Part 40)	0.5 - 1000 mg/L
		Sodium as Na	IS: 3025 (Part 45)	1 -20000 mg/L
Residual free Chlorine	IS:3025 (Part 26)	0.2 -100 mg/L		
Phenolic compound as C <sub>6</sub> H <sub>5</sub> OH	IS: 3025 (Part 43)	0.01-1.0mg/L		
Anionic surface active agents(as MBAS)	IS:13428 - Annex-K	0.1 - 1.0 mg/L		
Sulfide as S	IS: 3025 (Part 29)	0.02-4.0 mg/L		
Cyanide as CN	IS:3025 (Part 27)	0.01 – 5 mg/L		
Borate as Boran	IS:13428 - Annex-H	0.5mg – 5.0mg/L		

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II.	<b>FOOD &amp; AGRICULTURAL PRODUCTS</b>			
1.	<b>Spice &amp; Spice Products, Condiment and Spice Oils / Oleoresins (Includes Whole And Ground, Chillies Powder, Turmeric, Masala Powder, Readymade Masala, Coriander &amp; Coriander Powder, Cardamom, Clove, Pepper, Nut Mage Powder, Mace Karam Masala, Mixed Masala Powder, Spice Powder)</b>	Moisture content	AOAC 20 <sup>th</sup> edn. -986.21/ IS:1797/ FSSAI - Manual for Analysis of Spices and Condiments,(3.0, Page No.2)	0.5 to 30 g/100g
		Extraneous Matter	IS:3579 /IS:1797 / FSSAI - Manual for Analysis of Spices and Condiments, (2.0, Page No. 2)	0.05 to 30g/100g
		Insect damaged matter	IS:4333(PART1) / IS:3579	0.01 to 20 g/100g
		Empty / Malformed capsules	IS:13446	0.01-50 g/100g
		Immature And Shrivelled Capsules	IS:13446	0.01-20 g/100g
		Broken	IS:4333(PART2) / IS:3579	0.01-20 g/100g
		Tendrils	IS:4404	0.04-50 g/100g
		Headless Cloves	IS:4404	0.01-50 g/100g
		Split fruits	IS:2443	0.01-5 g/100g
		Damaged / Discolored Fruits	IS:4333(PART2) IS:3579/IS:2443	0.01-5g/100g
		Bulk Density	FSSAI - Manual for Analysis of Spices and Condiments, (14.1, Page No.26) / IS:1797	100-900 g/cc Mass/litre
		Total Ash	FSSAI - Manual for Analysis of Spices and Condiments, (4.0, Page No.12)/ AOAC 20 <sup>th</sup> edn. 2016-941.12/ IS:1797	0.5 to 20 g/100g
		Cold water soluble extract	FSSAI - Manual for Analysis of Spices and Condiments, (6.0, Page No.15)/ IS:1797	0.05 to 80 g/100g

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		Alcohol soluble extract	FSSAI - Manual for Analysis of Spices and Condiments , (6.0 Page No. 15)/ IS:1797	0.05 to 20 g/100g
		Water insoluble ash	IS:1797	0.5 to 10 g/100g
		Acid insoluble ash	FSSAI - Manual for Analysis of Spices and Condiments , (5.0, Page No. 14)/ IS:1797	0.1 to 10 g/100g
		Crude fibre	FSSAI - Manual for Analysis of Spices and Condiments, (11.0, Page No.22)/ IS:1797	1-45 g/100g
		Volatile oil content	FSSAI - Manual for Analysis of Spices and Condiments, (11.0,Page No.19)/ IS:1797	0.5 to30 ml/100g
		Non-Volatile ether extract	IS:1797/FSSAI -Manual for Analysis of Spices and Condiments,(9.0, Page No. 18)	0.5 to 30 g/100g
		Starch content	FSSAI - Manual for Analysis of Spices and Condiments, (16.5, Page No.35)/ IS 3576	0.5 to 80 g/100g
		Test for chromate in turmeric	FSSAI - Manual for Analysis of Spices and Condiments, (16.6, Page No.36)	Qualitative Present / Absent
		Presence of resins (Galbnum, Ammoniacum and other foreign resins)	FSSAI - Manual for Analysis of Spices and Condiments, (17.4,Page No.37)	Qualitative Present / Absent
		Salt as NaCl	AOAC - 941.13 / IS:1797	0.1-15 g/100g
		Light berries in pepper	FSSAI - Manual for Analysis of Spices and Condiments, (14.2,Page No.27)	0.1-10g/100g

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		Khokar cloves	IS:4404	0.01-5 g/100g
		Light Seeds / Brown / Red seeds	IS:13446	0.01-5g/100g
		Pinheads or broken berries	IS:1798	0.01-5g/100g
		Protein	AOAC - 920.165	0.5g-20g
2.	<b>Oil, Fat and Products (Including All Vegetable Oil, Bulk Oils, Edible and Non Edible Oil, Coconut Oil, Other Oil Varieties, Olive Oil All Grade, Cooking Fats, Ghee Varieties, Tallow, Vanaspathy)</b>	Moisture	IS: 3508 / FSSAI - Manual for Analysis of Oils and Fats,(3, Page No.5) / IS:548	0.5 to 15 g/100g
		Acid Value	AOAC-969.17/ FSSAI - Manual for Analysis of Oils and Fats, (11,Page No. 23)	0.01-20
		Saponification value	FSSAI - Manual for Analysis of Oils and Fats, (11,Page No. 23) / IS:548	50-300
		Free fatty acids	FSSAI - Manual for Analysis of Oils and Fats,(11.8, Page No. 25) / IS:548	0.01-10 g/100g
		Specific gravity	FSSAI - Manual for Analysis of Oils and Fats, (4,Page No. 6) / IS:548	0.8000-1.5000
		Refractive Index	FSSAI - Manual for Analysis of Oils and Fats,(5,Page No.8) / IS:548	1.3300 to 1.7000
		Flash Point	FSSAI - Manual for Analysis of Oils and Fats,(6,Page No. 13) / IS:548	Absent temp-350°C
		Unsaponifiable Matter	FSSAI - Manual for Analysis of Oils and Fats,(10,Page No. 20) / IS:548	0.25-8g/100g
		Iodine value	FSSAI - Manual for Analysis of Oils and Fats,(12,Page No. 26) / IS:548	1-200

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		Bellier Test	FSSAI - Manual for Analysis of Oils and Fats,(14,Page No. 35) / IS:548	Qualitative Present / Absent @ 10 - 30 C
		Peroxide value	FSSAI - Manual for Analysis of Oils and Fats,(38.1,Page No. 86) / IS:548	0.1-40 m.Eq/kg of extracted fat
		Rancidity based on peroxide value	FSSAI - Manual for Analysis of Oils and Fats, (38.0, Page No. 86)/IS:548	Qualitative Present / Absent
		Reichert-Meissl and Polenski value	FSSAI - Manual for Analysis of Oils and Fats-, (13,Page No. 30)/IS:548	0.1 to 40
		Cloud point	FSSAI - Manual for Analysis of Oils and Fats,(17,Page No. 40)/IS:548	10-40 c
		Test for presence of sesame oil	FSSAI - Manual for Analysis of Oils and Fats,(15,Page No. 38)/IS:548/AOAC-893.01	Qualitative Present / Absent
		Presence of cotton seed oil	FSSAI - Manual for Analysis of Oils and Fats,(16,Page No. 39)/IS: 548/AOAC-897.02	Qualitative Present / Absent
		Presence of Linseed oil	FSSAI - Manual for Analysis of Oils and Fats, (19,Page No. 43) / IS:548	Qualitative Present / Absent
		Presence of castor oil	FSSAI - Manual for Analysis of Oils and Fats, (29,Page No. 68)/IS:548	Qualitative Present / Absent
		Argenomom oil test	FSSAI - Manual for Analysis of Oils and Fats,(30,Page No. 69) / IS:548	Qualitative Present / Absent
		Hydrocyanic Acid	FSSAI - Manual for Analysis of Oils and Fats, (32,Page No. 73) / IS:548 / AOAC-920.144	Qualitative Present / Absent

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		Presence of Tea Seed Oil	FSSAI - Manual for Analysis of Oils and Fats, (24,Page No. 55) / IS:548	Qualitative Present / Absent
		Presence of Rice bran Oil	FSSAI - Manual for Analysis of Oils and Fats, (18, Page No.41)	Qualitative Present / Absent
		Presence of Olive Residue (Pomace)	FSSAI - Manual for Analysis of Oils and Fats, (25, Page No. 57)	Qualitative Present / Absent
		Presence of Mineral Oil	FSSAI - Manual for Analysis of Oils and Fats, (28, Page No. 68)	Qualitative Present / Absent
		Presence of Synthetic oil soluble colours	FSSAI - Manual for Analysis of Oils and Fats, (39.5,Page No.94)	Qualitative Present / Absent
3.	<b>Cereals, Pulses, Whole Grains and Cereal Products (Including Whole Cereals and Pulses, Split Cereals &amp; Pulses, Cereals by Products, Breakfast Cereal Products, Atta, Maida, All Purpose Flour, Suji, Corn Flour, Corn Flakes, Biscuit, Bread, Malted Milk Food.)</b>	Foreign Matter	IS:4333(PART2) / IS1009 / IS:1155 / FSSAI - Manual for Analysis of Cereal and Cereal Products,(1.2, Page No.2)	0.1-20 g/100g
		Refraction other than foreign matter	FSSAI - Manual for Analysis of Cereal and Cereal	0.1-20 g/100g
		Rodent excreta and hair	Products,(1.2,	0.1-20 g/100g
		Mineral matter	1.3,1.4,1.5,1.6,	0.1-20 g/100g
		Damaged grains	Page No.2 to 5) /	0.1-20 g/100g
		Discolored grains	IS:4333 (PART2)	0.1-20 g/100g
		Insect damaged / weeviled grains		0.1-20 g/100g
		Shrivilled / broken grains		0.1-20 g/100g
		Presence of insect and fragments		Qualitative Present / Absent
		Cocoa powder	FSSAI - Manual for Analysis of Cereal and Cereal Products, (17.2,Page No.51)	1-60 g/100g

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		Presence of Mould	FSSAI - Manual for Analysis of Cereal and Cereal Products, (1.2, Page No. 2)	Qualitative Present / Absent
		Total Ash	IS:4333(PART2)	0.1-30 g/100g
		Acid Insoluble ash	FSSAI - Manual for Analysis of Cereal and Cereal Products(14.4, Page No .40)	0.01 to 10 g/100g
		Gluten content	FSSAI - Manual for Analysis of Cereal and Cereal Products (8.4, Page No .17)	1 to 20 g/100g
		Alcoholic Acidity	FSSAI - Manual for Analysis of Cereal and Cereal Products (15.3, Page No.43)	0.1 to 30 ml of 1 N NAOH /100g
		Granularity	IS:1155	0.1-100 g/100g
		Crude Fiber	FSSAI - Manual for Analysis of Cereal and Cereal Products (8.8, Page No.23)	1-30 g/100g
		Total Ash Excluding Sodium chloride	FSSAI - Manual for Analysis of Cereal and Cereal Products (16.2, Page No.48)	1-30 g/100g
		Determination of Solubility	FSSAI - Manual for Analysis of Cereal and Cereal Products (17.1, Page No.49)	1-40 g/100g
		Total Solids	FSSAI - Manual for Analysis of Cereal and Cereal Products (17.1.4, Page No.50)	1-40 g/100g
		Protein	FSSAI - Manual for Analysis of Cereal and Cereal Products (8.7, Page No. 19)	0.5g - 25 g/100g
		HCN as Hydrocyanic acid	FSSAI - Manual for Analysis of Cereal and Cereal Products (5.0, Page No .11)	1-40 mg/kg

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		Moisture	FSSAI - Manual for Analysis of Cereal and Cereal Products (2.0, Page No .8)	1g-15 g/100g
		Fat content	AOAC - 945.38	0.1 g to 30 g/100g
		Energy	Food and Agriculture Organization of the United Nation -ISSN0254-4725Food and Nutrition Paper 77,Page No.23	10 Kcal -1000Kcal/gm
		carbohydrate	Food and Agriculture Organization of the United Nation-ISSN0254-4725Food and Nutrition Paper77, Page No. 12	0.5g - 90g/100g
4.	<b>Bakery and Bakery Products</b>	Moisture	IS:12711/ IS:1011 / FSSAI - Manual for Analysis of Cereal and Cereal Products (2.0, Page No.8 & 8.1,Page No.13)	0.5-30g/100g
		Total Ash	IS:12711 / IS:1011 / FSSAI - Manual for Analysis of Cereal and Cereal Products (8.2, Page No.14)	0.1 to 30 g/100g
		Acid Insoluble Ash	IS:12711 / IS:1011/ FSSAI - Manual for Analysis of Cereal and Cereal Products, (14.4, Page No.40-41)	0.05 to 15 g/100g
		Total Solid content	IS:12711 / IS:1011 / FSSAI - Manual for Analysis of Cereal and Cereal Products, (17.1.4, Page No.50)	1-99 g/100g

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		Fat Content	IS:12711 / IS:1011 / FSSAI - Manual for Analysis of Cereal and Cereal Products, (14.5, Page No.41-42)	0.1-25 g/100g
		Acidity of Extracted fat as oleic acid	IS:12711/ IS:1011 / FSSAI - Manual for Analysis of Cereal and Cereal Products, (14.5, Page No.41-42)	0.5-25 g/100g
		pH of aqueous extract	IS:12711 / IS:1011	1-14
		Crude Fibre	IS:12711 / IS:1011 / FSSAI - Manual for Analysis of Cereal and Cereal Products, (8.8, Page No.23-25)	1-30g/100g
		Alcoholic Acidity	IS:12711 / IS:1011 / FSSAI - Manual for Analysis of Cereal and Cereal Products, (8.5, Page No.18-19)	0.5-30g/100g
		Energy	Food and Agriculture Organization of the United Nation -ISSN0254-4725 Food and Nutrition Paper 77, Page No.23	10-1000 Kcal/100g
		Protein	FSSAI - Manual for Analysis of Cereal and Cereal Products, (8.7, Page No.19-22)	1-70g/100g

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Carbohydrate	AOAC-986.25 / FSSAI - Manual for Analysis of Milk and Milk Products, (10.5, Page No.89-90) / Food and Agriculture Organization of the United Nation ISSN0254-4725FoodandNutrition Paper 77 , Page No.12	5-90g/100g
		Salt as NaCl	FSSAI - Manual for Analysis of Cereal and Cereal Products, (16.2, Page No.48-49)	0.5 to 30 g/100g
5.	<b>Beverages (Including Coffee Roasted &amp; Powder, Tea, Green Tea, Flavored Tea, Instant Coffee &amp; Tea, Tea Bags, Cocoa Powder)</b>	Moisture	FSSAI Manual (1.0 Page No:4-5) / IS:3077 / IS:13855	0.5-25 g/100g
		Total Ash	FSSAI Manual-2016(1.3 Page No: 6-7) / IS:3077 / IS:13855	1-25 g/100g
		Water Soluble Ash	FSSAI Manual-2016 (1.4 Page No:7-8) / IS:3077 / IS:13855	0.5 to 60 g/100g
		Ash Insoluble in dilute HCL	FSSAI Manual-2016 (1.5 Page No:8-9) / IS:3077/ IS:13855	0.01-10 g/100g
		Alkalinity of soluble Ash	FSSAI Manual-2016 (1.6 Page No:9-10) / IS:3077 / IS:13855	0.1 to 20 g/100g
		Aqueous extract	FSSAI Manual (1.7 Page No:10-11) / IS:3077	1-70 g/100g
		Test for chicory	FSSAI Manual (1.9.1 Page No: 19- 20)	Qualitative Present / Absent
		Solubility in boiling water	FSSAI Manual (3.4 Page No:22)	NA

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		Cocoa Butter	FSSAI Manual (4.3 Page No:23)	1-30 g/100g
		Crude Fibre	FSSAI Manual (5.8 Page No:25)	1-30 g/100g
		Iron filling in tea	FSSAI Manual (5.9 Page No:27-28)	1mg-200mg/kg
6.	<b>Alcoholic and Non-Alcoholic Beverages (Includes Soft Drinks, Carbonated/ Noncarbonated Drinks, Fruit Drinks &amp; Juices, Thermally Processed Fruit Beverages, Alcoholic Drinks (Wine, Beer, Whiskey, Brandy) Instant Mix Powder, Health Drink, Health Mix)</b>	Determination of Ethyl alcohol	IS:3752 / IS:7585 FSSAI Manual (2.0 Page No:3-4)	1g to 100g/100L
		Residue on evaporation	IS 3752 / IS 7585	1-15 g/100g
		Ash content	IS 3752 / IS:7585	0.1-10 g/100g
		Total Acidity	IS 3752/ IS 7585 / FSSAI Manual (4.0 Page No:6-8)/ AOAC-950.07	5g-1000g/100L
		Volatile Acidity	IS 3752 / FSSAI Manual (5.0 Page No:8-9)	10g to 250g/100L
		Fixed acidity as tartaric acid	IS 3752	0.01g-45 g/100L
		Ester content as Ethyl Acetate	IS 3752	2g-45g/100L
		Higher Alcohol content	IS 3752	1g-1000 g/100L
		Aldehydes	IS 3752/IS:7585	1g-25g/100L
		Total Solids	FSSAI Manual (2.1 Page No:10-11)	1-80g/100g
		pH	FSSAI Manual (2.3 Page No:11-12)	1-14
		Total Soluble Solids	FSSAI Manual (1.6 Page No: 4-8)	0.5-40g/100g
		Added sugar	FSSAI Manual (2.6 Page No:15-18)	1-20g/100g
	Mineral Impurities	FSSAI Manual (2.10 Page No:29-31)	1-20g/100g	



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7.	<b>Sugar and Sugar Products &amp; Confectionary Products (Including Sugar Candies, Chewing Gum, Chocolate, Milk Chocolates, Jelly, Non Fruit Based Jelly, Filled Chocolates, Sugar Based Candies, Lollypop, Soft Chocolate, Toffee, Centre Filled Toffee &amp; Chocolates)</b>	Moisture	IS 6287 / IS:1163	1-30g/100g
		Acid Insoluble Ash	IS 6287 / IS:1163	0.05-10g/100g
		Sulphated Ash	IS 6287	1-20g/100g
		Reducing sugar	IS 6287 / IS:1163	0.1-99g/100g
		Sucrose	IS 6287 / IS:1163	0.5-90g/100g
		Fat Content	IS 6287/ IS:1163	0.5-35 g/100g
		Milk fat	IS 1163	0.5-25 g/100g
		Cocoa Solid on fat & moisture free basis	IS 1163	3-35 g/100g
		Milk Solids	IS 1163	0.1-45 g/100g
		chocolate component to filled chocolate	IS 1163	1-25g/100g
		Protein	IS 1163/ FSSAI Manual-2016 (A7 Page No:68-71)	1-30 g/100g
		Total Ash / Sulphated Ash	FSSAI Manual (10.0, A3, A4, B4)	1-30 g/100g
		Gum content	FSSAI Manual (B7 Page No:112-113)	0.5-80 g/100g
	Carbohydrate	AOAC-986.25 / Food and Agriculture Organization of the United Nation -ISSN0254-4725 Food and Nutrition Paper77 , Page No. 12	5-90g/100g	
	Energy	Food and Agriculture Organization of the United Nation-ISSN0254-4725 Food and Nutrition Paper 77, , Page No.23	10-1000 Kcal/100g	
8.	<b>Fruits and Vegetables &amp; Products (Including Thermally / Non Thermally Processed Fruits &amp;</b>	Fill of container	FSSAI - Manual for Analysis of Fruit and Vegetable Products-,(1.3, Page No.1)	1-40g/100g
		Drained weight	FSSAI - Manual for Analysis of Fruit and Vegetable Products-,(1.4, Page No.3)	10-70g/100g

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	Vegetable-Canned, Bottled, Jams, Pickles, Fruit Juices, Soup Powder, Tamarind Pulp, Fruit Pulp, Puree, Squash, Syrup, Sherbets, Chutney, Ketchup, Sauce, Culinary Past, Vinegar, Carbonated Fruit Drinks, Jelly, Dehydrated Fruits & Vegetables, Table Olives, Fruit & Vegetable Flakes)	Sodium chloride (Salt content)	FSSAI - Manual for Analysis of Fruit and Vegetable Products-, (1.7, Page No.9) / IS:13815	1-25 g/100g
		Total Solids	FSSAI - Manual for Analysis of Fruit and Vegetable Products, (2.1, Page No.10)	1-60g/100g
		pH	FSSAI - Manual for Analysis of Fruit and Vegetable Products, (2.3, Page No.11) / IS:13815-1993	1-14
		Peroxidase	FSSAI - Manual for Analysis of Fruit and Vegetable Products, (17.5, Page No. 51)	Negative / Positive
		Total Soluble solids	FSSAI - Manual for Analysis of Fruit and Vegetable Products, (1.6, Page No.4) / IS:13815	0.5-60g/100g
		Acidity	FSSAI - Manual for Analysis of Fruit and Vegetable Products- (2.4, Page No.4) / IS:13815	0.1-10g/100g
		Volatile acids	FSSAI - Manual for Analysis of Fruit and Vegetable Products- (2.5, Page No.14)	0.5-20g/100g
		Added sugar	FSSAI - Manual for Analysis of Fruit and Vegetable Products- (2.6, Page No.15)	1-20g/100g
		Ethanol content	FSSAI - Manual for Analysis of Fruit and Vegetable Products- (2.9, Page No.23).	0.5-30g/100g
		Minerals impurities	FSSAI - Manual for Analysis of Fruit and Vegetable Products - (2.10, Page No.29).	0.5-30g/100g

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		Fruit Content	FSSAI - Manual for Analysis of Fruit and Vegetable Products- (2.11, Page No.31)	1-95g/100g
		Ash content	IS:2860	0.5-35g/100g
		Rotting	FSA/CH/SOP/09 (Issue Dt:22-01-2018)	Qualitative Present / Absent
		Mould	FSSAI - Manual for Analysis of Fruit and Vegetable Products -(17.1 page No :51)	Qualitative Present / Absent
		Reducing sugar	FSSAI - Manual for Analysis of Fruit and Vegetable Products- (10.1, Page No.41)	0.1-90g/100g
		Ash Insoluble in HCL	FSSAI - Manual for Analysis of Fruit and Vegetable Products - (5.3, Page No.35).	0.05-10g/100g
		Starch content	FSSAI - Manual for Analysis of Fruit and Vegetable Products (7.3, Page No .39).	0.5-20g/100g
		Mineral acid	FSSAI - Manual for Analysis of Fruit and Vegetable Products-(14.6, Page No.44).	Qualitative Present / Absent
		Peroxidase	FSSAI - Manual for Analysis of Fruit and Vegetable Products -(17.5, Page No .51)	Qualitative Present / Absent
		Energy	Food and Agriculture Organization of the United Nation ISSN0254-4725 Food and Nutrition Paper 77, Page No.23	10-1000 Kcal/100g
		Carbohydrate	AOAC-986.25 / Food and Agriculture Organization of the United Nation -ISSN0254-4725 Food and Nutrition Paper 77, Page No.12	5-90g/100g

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
9.	<b>Nuts and Nut Products (Including All Dry Nuts, Raisins, Dates, Pista, Cashew Nuts, Walnuts)</b>	Energy	Food and Agriculture Organization of the United Nation -ISSN0254-4725 Food and Nutrition Paper 77, , Page No.23	10-1000 Kcal/100g
		Carbohydrate	AOAC-986.25 / FSSAI - Manual for Analysis of Milk and Milk product Products, (10.5, Page No.89-90) / Food and Agriculture Organization of the United Nation - ISSN0254-4725 Food and Nutrition Paper 77, Page No.12	5-90 g/100 g
		Moisture	AOAC -925.40/ IS: 3579 / FSSAI - Manual for Analysis of fruits and vegetables Products,2016 (20.1, Page No.55)	1-20g/100g
		Total ash	AOAC-950.49 / IS:966	1-10g/100g
		Crude Fibre	AOAC-935.53	0.05-10g/100g
		Protein	AOAC-950.48 / IS:966	0.05-20g/100g
		Fat	AOAC-948.22 / IS:966	0.1-80g/100g
		Acid Insoluble in Ash	IS:4684 / IS:966	0.01-5g/100g
		Acidity Extracted Fat	IS:1011	0.01-15g/100g
		Foreign Matter	FSSAI - Manual for Analysis of Cereal and cereal Products,(1.2, Page No.2-3)	Qualitative Present / Absent
		Mineral Matter	FSSAI - Manual for Analysis of Cereal and cereal Products,(1.3, Page No.3)	Qualitative Present / Absent
		Organic Matter	FSSAI - Manual for Analysis of Cereal and cereal Products, (1.3, Page No.3)	Qualitative Present / Absent

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Rodent hair & Excreta	FSSAI - Manual for Analysis of Cereal and cereal Products, (1.5, Page No.4)	Qualitative Present / Absent
		Peroxidase Test	FSSAI - Manual for Analysis of fruits and vegetables products, (17.5, Page No.51)	Qualitative Present / Absent
		Unopened Shells	IS: 3579	0.1-80g/100g
		Mouldy Shells	IS: 3579	0.1-10g/100g
		Empty Shells	IS: 3579	0.1-20g/100g
		Damaged / Discolored	FSSAI - Manual for Analysis of Cereal and cereal Products, (1.0, Page No.1-2)	0.1-20g/100g
		Extraneous Matter	FSSAI - Manual for Analysis of Cereal and cereal Products, (1.3, Page No.3)	0.1-20g/100g
		Blemished/ Damaged Units	IS: 3579	0.1-50g/100g
		Insect fragment	FSSAI - Manual for Analysis of Cereal and cereal Products, (1.0, Page No.1-2)	0.01-10g/100g
		Acidity of extracted fat as lauric acid	IS:966	0.1-10g/100g
10.	Milk and Dairy Products (Including Milk Powder, Infant Milk Products, Milk Based Drinks, Ice Creams, Dessert Items, Koha, Paneer, Cheese, Buttermilk, Butter, Curd, Yoghurt,	Moisture	IS:16072 / FSSAI- Manual for Analysis of Milk and Milk Products / IS:11623	1-80g/100g
Total Solids		FSSAI - Manual for Analysis of Milk and Milk Products / IS:1479PARTII	1-90g/100g	
Acidity		FSSAI - Manual for Analysis of Milk and Milk Products, / IS:1479PARTII	0.1-10g/100g	

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Cereal Based Milk Products)	Total Ash	FSSAI - Manual for Analysis of Milk and Milk Products / IS:1479PARTII	0.1-25g/100g
		Total Fat/Milk fat	FSSAI - Manual for Analysis of Milk and Milk Products / IS:1479PARTII	1-60g/100g
		pH	IS:1479 PARTII	1-14
		Crude protein	IS:1479 PARTII	0.5-50g/100g
		Sucrose content	FSSAI - Manual for Analysis of Milk and Milk Products,2016 / IS:1479 PART II	1-60g/100g
		SNF	IS:1479 PARTII	0.5-65g/100g
		CrudeFibre	FSSAI - Manual for Analysis of Milk and Milk Products (10.9,Page No.93)	0.5-20g/100g
		Solubility Percent	FSSAI - Manual for Analysis of Milk and Milk Products (10.11, Page No.96)	1-60g/100g
		Protein / Milk protein	AOAC 991.22 / 991.23 / FSSAI - Manual for Analysis of Milk and Milk Products	1-50g/100g
		Milk Solid	IS:1163/ FSSAI - Manual for Analysis of Milk and Milk Products	1-60g/100g
		Reichert value	IS:3508 / FSSAI – Manual for Analysis of Milk and Milk Products (13.5,Page No.117)	1-35
		Added Starch	FSSAI - Manual for Analysis of Milk and Milk Products (7.6, Page No.65)	Qualitative Present / Absent
		Salt content	FSSAI - Manual for Analysis of Milk and Milk Products (12.4, Page No.104)	0.1-10g/100g

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Determination of adulterant or all parameters	FSSAI - Manual for Analysis of Milk and Milk Products (1.2, Page No.9)	Qualitative Present / Absent
		Carbohydrate	AOAC-986.25/ FSSAI - Manual for Analysis of Milk and Milk Products (10.5,Page No.89)/ Food and Agriculture Organization of the United Nation - ISSN0254-4725 Food and Nutrition Paper 77, Page No.12	5-90g/100g
		Energy	Food and Agriculture Organization of the United Nation -ISSN0254-4725 Food and Nutrition Paper 77 Page No.23	10-1000 kcal/100g
11.	<b>Nutritional value (Food &amp; Agri Products - Ready to Eat Foods, Cereal Based Foods, Spices And Condiments , Milk Based Food, Sugar Based Food, Fruits, Vegetables, Nuts Based Foods, Alcoholic &amp; Nonalcoholic Beverages)</b>	Moisture	IS1011 /IS4684/IS11623	0.1g-50 g/100g
		Total ash	IS4684	0.1g-25 g/100g
		Protein	AOAC - 50.48 / IS7219	0.1g-50 g/100g
		Fat	AOAC -948.22	0.1g-50 g/100g
		Carbohydrate	AOAC-986.25/ Food and Agriculture Organization of the United Nation-ISSN0254-4725 Food and Nutrition Paper 77 , Page No.12	5g-90 g/100g
		Energy	Food and Agriculture Organization of the United Nation - ISSN0254-4725 Food and Nutrition Paper 77, Page No.23	10-1000kcal/100g