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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	FOOD AND AGRICU	ULTURAL PRODUCTS		
1.	Fruit & Vegetable Products, Meat and Meat Products,	Total plate count	IS 5402: 2012 (RA 2012) ISO 4833-1:2013 ISO 4833-2:2013	≥1CFU/ml or ≥10 CFU/g
	Bakery Products, Sea Food, Coffee, Tea,	Yeast and Mould	IS 5403: 1999 (RA 2009) FDA BAM 2001 8 th Edn. Ch. 18	≥1CFU/ml or ≥10 CFU/g
	Snacks, Dairy Products,	Detection & Enumeration of Escherichia coli	IS 5887 (Part 1): 1976 (RA 2009)	\geq 1CFU/ml or \geq 10 CFU/g
	Nuts, Cereals and Pulses,	Eschericina con	(1012007)	(0.30 to 110) MPN/g or ml
	Beverages,			Qualitative
	Egg Products, Jams & Juices, Spices & Condiments		ISO 16649-2:2001	≥1CFU/ml or ≥10 CFU/g
	Condiments	Total Coliforms	IS 5401 (Part 1): 2012 (RA 2012) FDA BAM 2002 8 th Edn. Ch. 4	\geq 1CFU/ml or \geq 10 CFU/g
			IS 5401 (Part 2): 2012 (RA 2012)	(0.30 to 110) MPN/g or ml
			FDA BAM 2002 8 th Edn. Ch. 4	
		Thermotolerant Coliforms/ Faecal Coliforms	FDA BAM 2002 8 th Edn. Ch. 4	(0.30 to 110) MPN/g or ml
		Detection & Enumeration of Staphylococcus aureus	IS 5887 (Part 8/Sec 1): 2002 (RA 2012) BS EN ISO 6888-1:1999 IS 5887 (Part 2): 1976 (RA 2009)	≥1CFU/ml or ≥10 CFU/g

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	Fruit & Vegetable Products, Meat and Meat	Detection of Salmonella sp.	IS 5887 (Part 3): 1999 (RA 2009) BS EN ISO 6579:2002+A1:2007	Qualitative
	Products, Bakery Products, Sea Food,	Detection & Enumeration of Bacillus cereus	IS 5887 (Part 6): 2012 (RA 2012) ISO 7932: 2004	≥1CFU/ml or ≥10 CFU/g
	Coffee, Tea, Snacks, Dairy Products,	Detection & Enumeration of Clostridium perfringens	IS 5887 (Part 4): 1999 (RA 2009) BS EN ISO 7937:2004	≥1CFU/ml or ≥10 CFU/g
	Nuts, Cereals and Pulses, Beverages,	Detection of Shigella	IS 5887 (Part 7): 1999 (RA 2009) FDA-BAM 2001 8 th Edn. Ch. 6	Qualitative
	Egg Products, Jams & Juices, Spices & Condiments	Detection & Enumeration of Enterobacteriaceae	APHA 2001, 4 th Edn. Ch. 8, Compendium of Methods for the Microbiological Examination of foods, ISO 2158-2:2004	≥1CFU/ml or ≥10 CFU/g ≥1CFU/ml or ≥10 CFU/g
		Flat sore spores	APHA 2001, 4 th Edition Compendium of Methods for the Microbiological Examination of foods	≥1CFU/ml or ≥10 CFU/g

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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
	Fruit & Vegetable Products,	Detection of Listeria monocytogens	FDA-BAM 2011 8 th Edn. Ch. 10	Qualitative
	Meat and Meat Products, Bakery Products, Sea Food, Coffee, Tea,	Elisteria monocytogenio	IS 14988 (Part 1): 2001 (RA 2012) BS EN ISO 11290 1: 1996 + A1 : 2004	Qualitative
	Snacks, Dairy Products, Nuts, Cereals and Pulses,		IS 14988 (Part 2): 2002 (RA 2012) BS EN ISO 11290 2 : 199 8+ A1 : 2004	≥1CFU/ml or ≥10 CFU/g
	Beverages, Egg Products, Jams & Juices,	Detection & Enumeration of Faecal Streptococci	IS 5887 (Part 2): 1976 (RA 2009) 1 st Revision	≥1CFU/ml or ≥10 CFU/g
	Spices & Condiments	Detection of V. cholerae	IS 5887 (Part 5): 1976 (RA 2009)	Qualitative
			ISO/TS 21872-1:2007	Qualitative
		Detection of V. parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2009)	Qualitative
		paranaemoryneus	ISO/TS 21872-1:2007	Qualitative
		Detection of V. vulnificus	FDA-BAM 2004 8 th Edn. Ch. 9	Qualitative

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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
II.	WATER			
1.	Drinking Water including Ground	Total Coliforms	IS 1622: 1981 (RA 2009) Amd. 4	(2 to 1600) MPN/100 ml
	water /Surface Water	Thermo tolerant coliforms	IS 1622: 1981 (RA 2009) Amd. 4	(2 to 1600) MPN/100 ml
	water	E.coli	IS 1622: 1981 (RA 2009) Amd. 4	(2 to 1600) MPN/100 ml
		Enterococci / Faecal Streptococci	IS 1622: 1981 (RA 2009) Amd. 4	(2 to 1600) MPN/100 ml
2.	Water for Swimming Pools and Spas	Total plate count	IS 1622: 1981 (RA 2009) Amd. 4	≥1 CFU / ml
		Total Coliforms	IS 1622: 1981 (RA 2009) Amd. 4	(2 to 1600) MPN/100 ml
3.	Water for Processed Food Industry, Water & Ice	Total plate count	IS 1622: 1981 (RA 2009) Amd. 4 EN ISO 6222:1999	≥1 CFU/ ml
		Coliform / E.coli	IS 1622: 1981 (RA 2009) Amd. 4 ISO 9308-1:2000	(1 to 161) MPN/100 ml Qualitative
		Pseudomonas aeruginosa	EN ISO 16266:2006	Qualitative
		Clostridium perfringens	Annex III of 98/83/EC	Qualitative
		Enterococci / Faecal Streptococci	ISO 7899-2:2000	Qualitative
		Proteolytic & Lipolytic organisms Combined Count	IS 4251: 1967 (RA 2009) Appendix A	≥1 CFU/ ml

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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
	Water for Processed Food Industry, Water &	Thermophillic bacteria count	IS 4251: 1967 (RA 2009) Appendix B	≥1 CFU/ ml
	Ice	Slime forming Organisms	IS 1622: 1981 (RA 2009) Amd. 4	Qualitative
4.	Packaged Drinking Water / Packaged	Total plate count @ 37 °C	IS 5402: 2012 (RA 2012)	≥1 CFU/ ml
	Natural Mineral Water	Total plate count @ 20-22 °C	IS 5402: 2012 (RA 2012)	≥1 CFU/ ml
		Total Coliforms	IS 15185: 2002 (RA 2009)	Qualitative
			IS 15188: 2012 IS 5401 (Part 1): 2012 (RA 2012)	
		E.coli	IS 15185: 2002 (RA 2009) IS 15188: 2012 IS 5887 (Part 1): 1976 (RA 2009)	Qualitative
		Faecal Streptococci (Enterococci)	IS 15186: 2002 (RA 2009)	Qualitative
			IS 15188: 2012 IS 5887 (Part 2): 1976 (RA 2009)	
		Pseudomonas aeruginosa	IS 13428: 2005 (RA 2009) 2 nd Rev. Annex. D IS 15188: 2012	Qualitative

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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
	Packaged Drinking Water / Packaged Natural Mineral	Staphylococcus aureus	IS 5887 (Part 2): 1976 (RA 2009) IS 15188: 2012	Qualitative
	Water	Sulphite Reducing Anaerobes	IS 13428: 2005 (RA 2009) 2 nd Revision, Annex. C IS 15188: 2012	Qualitative
		Yeast and Mould	IS 5403: 1999 (RA 2009) IS 15188: 2012	Qualitative
		Salmonella	IS 15187: 2002 (RA 2009) IS 15188: 2012 IS 5887 (Part 3): 1999 (RA 2009)	Qualitative
		Shigella	IS 5887 (Part 7): 1999 (RA 2009) IS 15188: 2012	Qualitative
		Vibrio cholera	IS 5887 (Part 5): 1976 (RA 2009) IS 15188: 2012	Qualitative
		Vibrio parahaemolyticus	IS 5887 (Part 5): 1976 (RA 2009) IS 15188: 2012	Qualitative

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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
III.	ENVIRONMENT A	ND POLLUTION		
1.	Air/Surface			
a.	Surface swab from area	Aerobic Plate Count/ Microbial Load	Chapter 3, Compendium APHA 2001, 4th Edition	≥1CFU/cm ²
	Hand swabs			≥1CFU/Swab
	Air sample Plate (Settle Plate Method)			(1 to 250) CFU/Plate
	Air sample plates using Air Sampler			(1 to 250) CFU/m ³
b.	Surface swab from area	Enterobacteriaceae	Chapter 3 & 8, Compendium APHA 2001, 4th Edition	\geq 1CFU/ cm ²
	Hand swabs			≥1CFU/Swab
	Air sample Plate (Settle Plate Method)			(1 to 250) CFU/Plate
	Air sample plates using Air Sampler			(1 to 250) CFU/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
c.	Surface swab from area	Yeast & Mould	Chapter 3 & 20, Compendium APHA 2001, 4th Edition	≥1CFU/ cm ²
	Hand swabs			≥1CFU/Swab
	Air sample Plate (Settle Plate Method)			(1 to 250) CFU/Plate
	Air sample plates using Air Sampler			(1 to 250) CFU/m ³
d.	Surface swab from area	Coliforms	Chapter 3 & 20, Compendium, APHA 2001, 4 th Edition	\geq 1CFU/ cm ²
	Hand swabs			≥1CFU/Swab
	Air sample Plate (Settle Plate Method)			(1 to 250) CFU/Plate
	Air sample plates using Air Sampler			(1 to 250) CFU/m ³
2.	Effluents/Waste	Total plate count	APHA 22 nd Edn. 9215 B	≥1 CFU/ ml
	water Effluents, Sewage & Solid	Total Coliforms	APHA 22 nd Edn. 9221 B	(1.8 to 1600) MPN/100
	Waste	Faecal coliforms	APHA 22 nd Edn. 9221 E	(1.8 to 1600) MPN/100
		E.coli	APHA 22 nd Edn. 9221 F	(1.8 to 1600) MPN/100

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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
	Effluents/Waste water Effluents, Sewage & Solid	Enterococci / Faecal Streptococci	APHA 22 nd Edn. 9230 B	(1.8 to 1600) MPN/100 ml
	Waste	Pseudomonas aeruginosa	APHA 22 nd Edition 2012 Part 9213 F	(1 to 80)/100 ml
IV.	DRUGS AND PHA	RMACEUTICALS		
1.	Antibiotics			
a.	Gentamycin Sulfate	Microbiological Antibiotic assay	IP 2014 Chapter 2.2.10 (Page no 50 to 58)	≥ 1 mcg
b.	Erythromycin Stearate		BP 2013 Appendix XIV A Vol V	≥ 250 mg
c.	Erythromycin Estolate		USP 35 Chapter <81>	$\geq 250 \text{ mg}$
2.	Microbial Limit	Total bacterial count		10 CFU/g or ml and above
	Test	Total fungal count		10 CFU/g or ml and above
a.	Solid dosage (Tablets and	E. coli	IP 2014 Chapter 2.2.9	Qualitative
	Capsules) (Pour Plate	Salmonella	(Page no 38 to 50) BP 2013 Appendix XVI B Vol V	Qualitative
	Technique)	Staphylococcus aureus	USP 35 Chapter <61>	Qualitative
		Pseudomonas aeruginosa		Qualitative
		Candida albicans		Qualitative

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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
b.	Liquid Oral dosage (Syrup & Suspension)	Total bacterial count Total fungal count E. coli Salmonella Staphylococcus aureus Pseudomonas Aeruginosa Candida albicans	IP 2014 Chapter 2.2.9 (Page no 38 to 50) BP 2013 Appendix XVI B Vol V USP 35 Chapter <61>	10 CFU/g or ml and above 10 CFU/g or ml and above Qualitative Qualitative Qualitative Qualitative Qualitative
3.	Endotoxin			
a.	Parenteral, Bulk solid drug and Medical Device	Bacterial Endotoxin test by (Gel Clot method)	IP 2014 Chapter 2.2.3 (Page no 28 to 38) BP 2013 Appendix XIV C Vol V USP 35 Chapter <85>	Qualitative
4.	Sterility Test			
a.	Parenteral, Bulk solids drug & Ophthalmic Preparations	Sterility test (Membrane Filtration Technique)	IP 2014 Chapter 2.2.11 (Page no 59 to 66) BP 2013 Appendix XVI A Vol V USP 35 Chapter <71>	Qualitative

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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
b.	Surgical Dressings and Medical devices	Sterility test (Direct Inoculation Technique)	IP 2014 Chapter 2.2.11 (Page no 59 to 66) BP 2013 Appendix XVI A Vol V USP 35 Chapter <71>	Qualitative

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

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