Seri*al number of printed pages:*

Programme(D/UG/PG)/Semester/MFE203

2025

RECENT TRENDS IN FOOD SAFETY AND QUALITY MANAGEMENT

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

*Answer **any five** questions.*

1.	a)	Define adulterant, toxicant and contaminant with example for each.	5
	b)	Write target specific methods for separation, concentration & detection of microbial foodborne pathogens specifically based on bacteriophages, biotin-streptavidin interaction, nucleic acid & peptide aptamers and carbohydrate ligands.	3x5=15
2.	a)	Write species name, source & route of transmission, associated toxicity & symptoms for pathogenic *Vibrio* species.	20
3	a)	Briefly rite species name, source & route of transmission, associated toxicity & symptoms for the following pathogen : *Listeria monocytogens*	20
4.	a)	Discuss species name, source & route of transmission, associated toxicity & symptoms for the pathogen, *Salmonella sp.*.	20
5.	a)	Describe the PDCA / PDSA cycle. How can it be used to achieve continuous improvement in quality?	3+2
	b)	Define food safety management system (FSMS). Explain the difference between “quality control” and “quality assurance”?	5
	c)	What is The Global Standard for Food Safety/ Global Food Safety Initiative and its standard focus? What are the salient features of BRCG?	10
6.	a)	Explain the principle of HACCP. How CCP are calculated for HACCP implementation?	10
	b)	What is Total Quality Management? State the principles and elements for implementation of TQM in food safety.	10
7.	a)	Write a note on FSSAI with its general structure and functions for food safety.	8

	b)	Write short notes on i) CAS ii) PFA iii) BIS	12
8.	a)	Define Six Sigma. Explain the structure of Six Sigma and mention its role in quality management.	10
	b)	What are the quality tolls used in Sig Sigma process. Explain	6
	c)	State the relationships of ISO9000, ISO22000-FSMS and HACCP	4