

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2025  
(Second Semester)

Branch – FOOD TECHNOLOGY MANAGEMENT

**FOOD TOXICOLOGY AND SAFETY**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	What is HACCP system for? a) A systematic analysis of all steps and regular monitoring of the control points b) physical, chemical and biological hazards c) Accurately monitoring food hygiene hazards d) Identifying the CCP's, including their location, procedure and process	K1	CO1
	2	What is an example of biological hazard? a) Dirt                                      b) cleaners c) antibiotics                              d) salmonella	K2	CO1
2	3	What kind of people are at high risk for foodborne diseases? a) older individuals b) people with a compromised immunity c) pregnant women d) All of the above	K1	CO2
	4	Clostridium perfringens poisoning is associated with a) canned foods                      b) vegetables c) meat products                      d) fish products	K2	CO2
3	5	Which of the following is not a type of natural toxicant found in plants? a) Saponins                              b) Paralytic shellfish poisoning c) Protease inhibitors              d) Hemagglutinins	K1	CO3
	6	Where are Protease inhibitors commonly found? a) Dairy products                      b) Legumes, pulses, and cereals c) Meat and poultry                  d) none of the above	K2	CO3
4	7	How is food processing accomplished? a) Through mechanical action, heating, extrusion, and other manipulations b) Through chemical reactions c) Through freezing d) Through sunlight exposure	K1	CO1
	8	What is the basic definition of food preservation? a) Delaying food spoilage              b) Reducing food size c) Enhancing food quality              d) ) Increasing food volume	K2	CO1
5	9	Which of the following food products can be checked for adulteration through AGMARK certification? a) Milk                                      b) Honey c) Pulses                                      d) All of the above	K1	CO5
	10	What is the role of FSSAI? a) To regulate and ensure the safety of food products b) To ensure food pricing is controlled c) To promote the sale of organic food d) To monitor agricultural production of food	K2	CO5

Cont...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the concept of food toxicology and its significance in food safety.	K2	CO1
	(OR)			
	11.b.	Summarize the different types of food hazards and give examples for each.		
2	12.a.	Organize the basic principles of safe food handling.	K3	CO2
	(OR)			
	12.b.	Explain the factors that contribute to foodborne diseases.		
3	13.a.	Classify toxicants based on their chemical nature and provide examples.	K4	CO3
	(OR)			
	13.b.	Contrast the two phases of biotransformation of toxicants.		
4	14.a.	Justify how biotechnology help to improve the safety of food production.	K4	CO4
	(OR)			
	14.b.	Categorize any two common sources of food adulterants and how do they contribute to food toxicity?		
5	15.a.	Assess the health risks associated with environmental contaminants in food.	K5	CO5
	(OR)			
	15.b.	Criticize any three of common metallic contaminants in food and discuss their potential health risks.		

**SECTION - C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain the role of various Boards of Commodities.	K4	CO1
2	17	Distinguish the role of sanitation in food safety management systems and its impact on food quality.	K4	CO2
3	18	Discuss on different types of antinutrients found in food. Explain their effects on human health.	K5	CO3
4	19	Interpret various toxic substances that can form in food during processing and their potential health risks.	K5	CO4
5	20	Elaborate on the types of enzymes.	K6	CO5