

**M. SC. IN FOOD SAFETY AND
QUALITY MANAGEMENT
(MSCFSQM)**

Term-End Examination

June, 2025

**MVP-005 : FOOD TOXICOLOGY AND PUBLIC
HEALTH**

Time : 3 Hours

Maximum Marks : 100

Note : (i) Answer any *five* questions.

(ii) All questions carry equal marks.

1. (i) Explain the following (any *five*) : $5 \times 2 = 10$

(a) Genotoxicity

(b) Maximum tolerated dose

(c) Lactose intolerance

(d) Biological half-life

(e) Xenobiotics

(f) ADI

(g) Toxicokinetics

(ii) Enlist the factors that affect toxicity of compounds and elaborate any *four* of them. 10

2. Describe the storage and biotransformation of toxicants in human body. How are the toxicants excreted from our body ? 15+5

3. (i) Enlist the types of toxicological studies and explain any *two* of them. 10

- (ii) Explain the techniques used for extraction of solid and liquid samples for analysis of toxicants. 10
4. (i) Give the adverse health effects of some common food adulteration. Describe the methods of detection of food adulteration. 5+5
- (ii) Comment on the concerns of veterinary drug residues in food. 10
5. Discuss the sources and toxicity of any *two* heavy metal contaminants and any *two* pesticide residues in food. 20
6. (i) Discuss the chemicals/carcinogens produced in smoked products with respect to their formation, toxicity and preventive strategies for reduction. 10

(ii) Describe the fungal toxins associated
with food. 10

7. Explain the epidemiological triad of food-
borne diseases. How is outbreak of any food-
borne disease investigated ? 5+15

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