

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2022  
(Fourth Semester)

Branch – FOODS & NUTRITION

**NUTRITION AND ENVIRONMENTAL HEALTH**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

1. Which among the following defines the term Dose?  
(i) Risk determination (ii) Risk factor  
(iii) Risk determining factor (iv) Risk demonstrating factor
2. Identify the term in which the action of a substance is enhanced with second substance  
(i) Parasitism (ii) Mutualism  
(iii) Commensalism (iv) Synergism
3. Indicate drug used to reduce the toxic effects of methanol.  
(i) formepizole (ii) formaldehyde  
(iii) glycerides (iv) chloramphenicol
4. Name the toxic amino acid that cause Lathyrism  
(i) Diamino Propionic acid (ii) Oxalyl Diamino Propionic acid  
(iii) Oxalyl Propionic acid (iv) Oxalyl amino Propionic acid
5. Find out the percent level of mercury administered as fillings in dental amalgams  
(i) 20 % (ii) 50 %  
(iii) 40 % (iv) 30 %
6. Identify the term which explains the foods with both watery and fatty properties  
(i) hypophilic (ii) lipophilic  
(iii) hydrophilic (iv) amphiphilic
7. Identify the type of mushroom and toxin psilocybin are associated with hypertension, hyperglycemia, and tachycardia  
(i) cytotoxic (ii) hallucinogenic  
(iii) neurotoxic (iv) hemotoxic
8. Identify the food responsible for amnesic shellfish poisoning  
(i) mussels (ii) crabs  
(iii) squids (iv) sea anemones
9. Name the toxins produced by fungi.  
(i) mycotoxins (ii) aflatoxins  
(iii) pseudo toxins (iv) cycotoxins
10. Which among the following is closely related with Barbiturates?  
(i) cognitive booster (ii) CNS depressant  
(iii) PNS depressant (iv) active receptor

Cont...

**SECTION - B (35 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 7 = 35)

- 11 a Sketch about the effects of toxins on nutrients.  
OR  
b Illustrate on dose effect and dose response.
- 12 a Discuss the effects of edible oil toxins in human.  
OR  
b Illustrate the effects of alkaloids and phenyl propanes and give the safe dose limits.
- 13 a Examine the types and effects of pollutants on microorganisms, algae & fish.  
OR  
b Summarize the sources and adverse effects of cadmium and mercury.
- 14 a Enumerate the effects of *Bacillus cereus* and *Vibrio parahaemolyticus* in human health.  
OR  
b Outline the mode of action and safe level of use of fungicides and rodenticides.
- 15 a Sketch the effects of thermal pollutants and its sources.  
OR  
b Explain the toxic effects of LSD and nicotine.

**SECTION - C (30 Marks)**

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Explain the process of absorption, distribution and excretion of xenobiotics.
- 17 Enumerate the sources and toxic effects of natural toxins in food.
- 18 Analyse the ways of food contamination caused by packaging materials.
- 19 Highlight the sources, toxic effects of algal toxins and its treatments.
- 20 Discuss the methods suggested for solid waste disposal.

Z-Z-Z

END