

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2023  
(First Semester)

Branch – ENVIRONMENTAL SCIENCE

**ENVIRONMENTAL TOXICOLOGY AND HEALTH**

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	The toxicity that occurs from small doses of toxins administered to an organism over time is referred as _____ toxicity. a) Acute                      b) subacute c) Subchronic              d) chronic	K1	CO1
	2	Which is the fastest route of exposure to a toxicant? a) Inhalation              b) Ingestion c) Injection                d) Topical application	K2	CO1
2	3	The second stage of the fate of a toxicant within a living system is a) Absorption              b) Distribution c) Metabolism              d) Excretion	K1	CO2
	4	Which of the following is not an emerging contaminant? a) Fertilizer                b) Pharmaceuticals c) Cosmetics                d) Disinfection Products	K2	CO2
3	5	When two or more chemicals combine and produce a chemical with a total effect equal to the sum of the effects of each individual chemical in the reaction, then it is known as _____ effect. a) Additive                b) Synergistic c) Antagonistic            d) Potentiating	K1	CO3
	6	Which method of bioassay is suitable for unknown concentration of a toxicant? a) Matching                b) Bracketing c) Interpolation            d) Three point bioassay	K2	CO3
4	7	Particulate matter is the major toxicant that causes _____. a) Hepatotoxicity        b) Pulmonary toxicity c) Nephrotoxicity        d) Neurotoxicity	K1	CO4
	8	Which of the following disease is caused by inhalation of cotton dust? a) Byssinosis              b) Bagassosis c) Farmers Lung        d) Pneumonia	K2	CO4
5	9	The reaction that does not involve in Phase I detoxification mechanism is _____. a) Oxidation                b) Reduction c) Hydrolysis                d) Acetylation	K1	CO5
	10	The Nodal Statutory Agency that monitors environmental health globally is a) UNICEF                b) UNESCO c) WHO                      d) FAO	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.	How Environmental toxicants are classified? Explain in brief.	K4	CO1
	(OR)			
	11.b.	Illustrate the routes of entry, duration and frequency of exposure of toxicants.		
2	12.a.	Write short notes on the toxic properties of pesticides and hydrocarbons.	K5	CO2
	(OR)			
	12.b.	What are emerging Contaminants? Mention their toxic effects.		
3	13.a.	Explain the toxicity evaluation methods in brief.	K4	CO3
	(OR)			
	13.b.	Comment on the legislative perspectives of Ecotoxicology.		
4	14.a.	Explain the hepatotoxic responses to an environmental toxicant.	K3	CO4
	(OR)			
	14.b.	Justify the role of WHO towards ensuring occupational health.		
5	15.a.	Explain the detoxification mechanism of a toxin in brief.	K5	CO5
	(OR)			
	15.b.	How WHO promotes the concepts of environmental health globally?		

**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	Give a detailed account on toxicity types, spectrum of undesired effects and various toxic responses.	K4	CO1
2	17	Discuss about the fate, transport, bioaccumulation and biomagnification of environmental toxicants.	K6	CO2
3	18	Explain the dose response Relationship concept in detail with suitable examples.	K5	CO3
4	19	Discuss about any three occupational diseases and its preventive measures.	K4	CO4
5	20	Describe the process of risk assessment and management techniques for toxicants.	K5	CO5

Z-Z-Z

END