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PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2025
(First Semester)

Branch – **ENVIRONMENTAL SCIENCE**

ENVIRONMENTAL TOXICOLOGY AND HEALTH/ ECOTOXICOLOGY

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	Acute toxicity refers to		K1	CO1
		a) Long-term exposure studies	b) Short-term exposure studies		
		c) Organ-specific toxicity studies	d) Toxicity studies on aquatic animals		
	2	Probit assay is performed to analyse		K2	CO1
		a) LD_{50} value	b) Mortality rate		
		c) Teratogenic nature	d) Mutagenic nature		
2	3	PAN is associated with		K1	CO2
		a) Soil pollution	b) Air pollution		
		c) Heavy metal toxicity	d) Pesticides		
	4	Most toxic forms of chromium and arsenic are		K2	CO2
		a) Cr^{6+} and Ar^{3+}	b) Cr^{6+} and Ar^{5+}		
		c) Cr^{3+} and Ar^{3+}	d) Cr^{3+} and Ar^{5+}		
3	5	MSDS stands for		K1	CO3
		a) Medical Safety Data Sheet	b) Material Safety Design Sheet		
		c) Material Storing Data Sheet	d) Material Safety Data Sheet		
	6	The WET test is concerned with		K2	CO3
		a) Toxins in water bodies	b) Toxins in air samples		
		c) Toxins in wastewater	d) Toxins in food samples		
4	7	Asbestosis affects ____		K1	CO4
		a) Respiratory paths	b) Digestive paths		
		c) Skin	d) Neural system		
	8	The siderosis is a condition of		K2	CO4
		a) Fungal infection	b) Iron accumulation		
		c) Bacterial infection	d) Pesticide accumulation		
5	9	Detoxification involves the process of		K1	CO5
		a) Eliminating toxins	b) Sequestering the toxins		
		c) Conversion to less toxic forms	d) Structural changes to the toxins		
	10	WHO headquarters is located at		K2	CO5
		a) Denmark	b) Brazil		
		c) Switzerland	d) United States		

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.	Briefly explain the developments in the field of toxicology.	K2	CO1
		(OR)		
	11.b.	What are xenobiotics? Explain the methods of animal toxicity testing with an example.		
2	12.a.	Explain the sources and harmful effects of heavy metals on humans.	K2	CO2
		(OR)		
	12.b.	Compare the toxicity of dioxin and furan on environment.		
3	13.a.	Explain the dose-response relationships and interpretations.	K4	CO3
		(OR)		
	13.b.	Distinguish between the synergism and antagonism with examples.		
4	14.a.	What are occupational diseases? Explain bagassosis as an example.	K2	CO4
		(OR)		
	14.b.	How are hepatic enzymes involved in detoxification processes? Explain with an example.		
5	15.a.	Elaborate on the steps involved in the environmental risk assessment process.	K3	CO5
		(OR)		
	15.b.	Explain the role of environmental health agencies in India.		

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	List out the ethical concerns in association with animal toxicity studies.	K2	CO1
2	17	Enumerate the fate and mechanism of pesticides from croplands to animal bodies.	K2	CO2
3	18	Demonstrate the procedure for LC_{50} identification and calculations.	K3	CO3
4	19	Mention the legislative aids concerned with occupational diseases.	K3	CO4
5	20	Elaborate on different detoxification approaches for xenobiotics.	K3	CO5

Z-Z-Z END