

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2024  
(Fourth Semester)

Branch – ENVIRONMENTAL SCIENCE

MAJOR ELECTIVE COURSE – II :  
OCCUPATIONAL HEALTH AND SAFETY

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 \_\_\_\_\_ is defined as the study of how people work in their environment.  
(i) Hazard (ii) Ergonomics  
(iii) Risk (iv) Impact
- 2 \_\_\_\_\_ is an internationally recognized system for hazard classification of chemicals and communication.  
(i) Chemical Hygiene Plan (CHP)  
(ii) Material Safety Data Sheet (MSDS)  
(iii) Globally Harmonized System (GHS)  
(iv) Lab Chemical Safety Summary (LCSS)
- 3 Which of the following is an example for a biohazard?  
(i) *Salmonella* (ii) Dirt  
(iii) Antibiotics (iv) UV Light
- 4 Which type of fire extinguisher is suitable for extinguishing electrical fires?  
(i) Class A (ii) Class B  
(iii) Class C (iv) Class D
- 5 \_\_\_\_\_ refers to the means maximum permissible/acceptable concentration of a chemical or a biological hazard.  
(i) TLV (ii) ISO  
(iii) ILO (iv) STEL

**SECTION - B (15 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Define OHS. Mention its objective and principles.  
OR  
b Give a brief account on occupational disease and their impacts.
- 7 a What are the potential routes of exposure to a chemical into the human body?  
OR  
b How radioactive wastes are disposed? Explain.
- 8 a How will you anticipate and recognize the transmission of a biohazard?  
OR  
b Comment on the safety limits of amperes, volts and connection distances for electrical equipment.
- 9 a What do you mean by PPE? Mention its basic requirements.  
OR  
b Comment on fire detection and alarm systems employed to prevent fire accidents.

Cont...

- 10 a Outline the salient features of ILO Convention for health and safety.  
OR  
b How safety training programs are organized for different working sectors? Explain.

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Comment on the importance of hygiene and ergonomics in a work place.  
OR  
b Explain about occupational health management services to be provided at a work place.
- 12 a Explain about Globally Harmonized System (GHS) classification of chemicals, its health risk assessment and control measures.  
OR  
b Elaborate the types of radiation and health effects and control measures.
- 13 a Explain the types of biological hazards, identifying its hazard class and its control methods.  
OR  
b Comment on earthing standards, earth fault protection, and safety measures for preventing electrical hazards.
- 14 a Describe the various PPE kits & their benefits in Occupational health & safety.  
OR  
b Discuss the different types of fire extinguishers used for safety purposes.
- 15 a Explain the salient features of OHSAS standards.  
OR  
b Discuss various elements of training cycle in Occupational health and safety.

Z-Z-Z

END