

# **PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)**

**MSc DEGREE EXAMINATION DECEMBER 2025**  
**(Fourth Semester)**

## Branch – ENVIRONMENTAL SCIENCE

## **MAJOR ELECTIVE COURSE – II OCCUPATIONAL HEALTH AND SAFETY**

Time: Three Hours

**Maximum: 75 Marks**

### **SECTION-A (10 Marks)**

### Answer **ALL** questions

**ALL** questions carry **EQUAL** marks

$$(10 \times 1 = 10)$$

Module No.	Question No.	Question	K Level	CO
1	1	Which of the following is NOT a primary objective of Occupational Health and Safety (OHS)? a) Ensuring a safe work environment b) Preventing occupational diseases c) Increasing employee workload d) Promoting workers' well-being	K1	CO1
	2	Which of the following is an example of an occupational disease? a) Common cold b) Silicosis c) Hypertension due to family history d) Malaria	K2	CO1
2	3	Which of the following is NOT a common route of occupational exposure to hazardous chemicals? a) Inhalation b) Ingestion c) Radiation d) Skin absorption	K1	CO2
	4	Which document provides essential information on the safe handling, hazards, and emergency measures for chemicals in the workplace? a) Occupational Health Handbook b) Material Handling Guide c) Safety Data Sheet (SDS) d) Workplace Exposure Limits (WEL)	K2	CO3
3	5	Which of the following is NOT a common route of transmission for biological hazards? a) Inhalation b) Ingestion c) Absorption d) Radiation	K1	CO2
	6	What is the primary function of a circuit breaker in an electrical system? a) To increase voltage stability b) To prevent overload and short circuits c) To provide additional electrical power d) To improve conductor efficiency	K2	CO1
4	7	Which of the following PPE is essential for protecting workers from inhaling hazardous substances? a) Safety helmet b) Face shield c) Respiratory protective equipment d) Safety shoes	K1	CO3
	8	What is the primary purpose of a fire detection and alarm system in workplaces? a) To control smoke levels b) To alert occupants about fire hazards c) To automatically extinguish fires d) To prevent electrical hazards	K2	CO1
5	9	Which international organization sets labor standards, including those related to occupational health and safety? a) WHO b) WTO c) ILO d) FAO	K1	CO2
	10	What is the main purpose of OHSAS 18001? a) Ensuring product quality b) Managing occupational health and safety c) Regulating environmental protection d) Controlling industrial emissions	K2	CO1

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.	Explain the principles of Occupational Health and Safety (OHS).  (OR)	K3	CO1
	11.b.	Discuss the importance of medical surveillance in occupational health management.		
2	12.a.	Explain the acute and chronic effects of exposure to industrial solvents and acids on human health.  (OR)	K4	CO2
	12.b.	Describe the classification of chemicals under the Globally Harmonized System (GHS) and its significance in occupational safety.		
3	13.a.	Explain the different types of biological hazards and their modes of transmission.  (OR)	K3	CO2
	13.b.	Describe the various control measures for electrical hazards and their importance.		
4	14.a.	Explain the importance of fall protection and discuss the different types of fall protection equipment used in workplaces.  (OR)	K4	CO3
	14.b.	Describe the general causes of workplace fires and explain fire prevention measures..		
5	15.a.	Explain the role of the International Labour Organization (ILO) in occupational health and safety.  (OR)	K3	CO2
	15.b.	Describe the key elements of a safety training program in an industrial setting.		

**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	Describe the levels of prevention of occupational diseases and provide examples for each level.	K4	CO1
2	17	Discuss different types of radiation hazards in the workplace and outline effective control measures to mitigate their impact on workers.	K5	CO2
3	18	Discuss the methods of sterilization and disinfection used to control biological hazards in healthcare and laboratory settings.	K6	CO3
4	19	Describe the requirements for respiratory protective equipment (RPE), the process of fit testing, and its importance.	K4	CO1
5	20	Discuss the National Policy on Occupational Safety, Health, and Environment at Work, highlighting its key objectives and provisions.	K5	CO2