

**M.E. / M.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2025**

First Semester

**M.E - Industrial Safety Engineering**

**24PISPC102 - ENVIRONMENTAL SAFETY**

Regulations - 2024

Duration: 3 Hours

Max. Marks: 100

**PART - A (MCQ) (10 × 1 = 10 Marks)**

Answer ALL Questions

	Marks	K- Level	CO
1. The main objective of environmental safety is to: (a) Increase industrial output (b) Protect the environment and human health (c) Promote urbanization (d) Increase energy consumption	1	K1	CO1
2. The 3R principle stands for: (a) Reduce, Reuse, Recycle (b) Remove, Reclaim, Restore (c) Reuse, Reform, Refine (d) Reduce, Recover, Restore	1	K1	CO1
3. The ISO series related to Environmental Management Systems is: (a) ISO 9000 (b) ISO 14000 (c) ISO 18000 (d) ISO 50000	1	K2	CO2
4. The main goal of Environmental Auditing is to: (a) Reduce staff cost (b) Ensure compliance (c) Increase profits (d) Produce more goods	1	K2	CO2
5. The symbol used for hazardous materials is: (a) Green triangle (b) Yellow diamond (c) Blue circle (d) Red star	1	K1	CO3
6. Which of the following is an example of hazardous waste? (a) Paper waste (b) Vegetable peels (c) Used batteries (d) Plastic bottles	1	K1	CO3
7. The device used to measure the concentration of particulate matter in air is called: (a) Hygrometer (b) Spectrophotometer (c) Volume Air Sampler (d) Barometer	1	K1	CO4
8. The Air Quality Index (AQI) is used to indicate: (a) Energy consumption (b) Air pollution level (c) Water quality (d) Soil fertility	1	K1	CO4
9. Industrial effluents should be treated: (a) Before discharge (b) After discharge (c) Never treated (d) Mixed with domestic waste	1	K2	CO5
10. Which of the following is a major solid waste from cement industries? (a) Fly ash (b) Lime sludge (c) Red mud (d) Plastic pellets	1	K1	CO6

**PART - B (12 × 2 = 24 Marks)**

Answer ALL Questions

11. Define environmental safety.	2	K1	CO1
12. List any two causes of environmental pollution.	2	K1	CO1
13. State the main objective of environmental safety standards.	2	K1	CO2
14. Mention any two Indian standards related to environmental safety.	2	K1	CO2
15. Define Air pollution.	2	K1	CO3
16. Distinguish between point and non-point sources of water pollution.	2	K2	CO3
17. What is a waste and why does it require management?	2	K2	CO4
18. List any two ways to recycle the solid wastes.	2	K1	CO4
19. State the purpose of air quality monitoring.	2	K1	CO5
20. Mention the environmental legislation for air pollution control.	2	K1	CO5
21. What are green manufacturing practices?	2	K2	CO6
22. Mention the challenges faced by industries in implementing environmental safety measures.	2	K2	CO6

**PART - C (6 × 11 = 66 Marks)**

Answer ALL Questions

23. a) Explain the concept of environmental safety and discuss its significance in sustainable development. 11 K3 CO1

**OR**

b) Discuss the concept of global warming and climate change. 11 K3 CO1

24. a) Explain the importance of Safety standards in achieving sustainable industrial and environmental management. 11 K3 CO2

**OR**

b) Discuss the role of industries in maintaining environmental safety standards. 11 K3 CO2

25. a) Discuss about the air pollutants that contribute climate change. 11 K3 CO3

**OR**

b) Describe the control measures for oil pollution in sea water. 11 K3 CO3

26. a) Mention any four hazardous wastes generated from household activities and explain their management strategies. 11 K3 CO4

**OR**

b) Explain the various categories of waste and their sources. 11 K3 CO4

27. a) Enumerate and briefly explain various sources of radioactivity in environment and write about its control measures. 11 K3 CO5

**OR**

b) Explain about air sampling and the systems adopted. 11 K3 CO5

28. a) Discuss the role of environmental audits in industries. 11 K3 CO6

**OR**

b) Describe the impact of industrialization on the environment. 11 K3 CO6