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Question Paper Code	14153
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M.E. / M.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2025

First Semester

M.E - Industrial Safety Engineering

24PISPC104 - INDUSTRIAL SAFETY, HEALTH AND ENVIRONMENT ACTS

Regulations - 2024

Duration: 3 Hours

Max. Marks: 100

PART - A (MCQ) (10 × 1 = 10 Marks)

Answer ALL Questions

	<i>Marks</i>	<i>K- Level</i>	<i>CO</i>
1. In a factory where 35 women workers with children below 6 years are employed, which facility MUST be provided as per the Act? (a) Canteen (b) Welfare officer (c) Crèche (d) Ambulance room	1	K1	CO1
2. The upper limit of overtime work in a quarter (3 months) that a State Government can prescribe under Rule-making power is. (a) 50 hours (b) 75 hours (c) 100 hour (d) 144 hours (as allowed in many states in 2024-25)	1	K1	CO1
3. The Environment (Protection) Act, 1986 was enacted in the wake of which tragic industrial disaster? (a) Chernobyl nuclear disaster (b) Bhopal gas tragedy (c) London smog incident (d) Minamata disease	1	K1	CO2
4. As per Section 3(3) of the Environment (Protection) Act, 1986, which of the following authorities has been constituted by the Central Government? (a) National Green Tribunal (b) Central Pollution Control Board (c) Central Ground Water Authority (d) National Board for Wildlife	1	K1	CO2
5. Who is responsible for preparing and submitting the On-Site Emergency Plan in a MAH installation under MSIHC Rules, 1989? (a) District Collector (b) Central Pollution Control Board (c) The Occupier (d) Chief Inspector of Factories	1	K1	CO3
6. Under Rule 18 of MSIHC Rules, 1989, an importer of hazardous chemicals must provide information to the concerned authorities at least _____ days before the import. (a) 15 days (b) 30 days (c) 48 hours (d) 90 days	1	K1	CO3
7. The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996 were notified under which section(s) of the Environment (Protection) Act, 1986? (a) Section 3 & 5 only (b) Sections 6, 8 and 25 (c) Section 7 only (d) Sections 18 & 19	1	K1	CO4
8. As per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, which of the following wastes is EXCLUDED from the category of “hazardous waste”? (a) Used oil containing heavy metals (b) Spent catalyst from refineries (c) Fly ash from coal power plants (d) E-waste containing mercury	1	K1	CO4
9. The Basel Convention’s e-waste amendments (adopted at COP15 in 2022) entered into force on: (a) 1 January 2024 (b) 1 January 2025 (c) 1 January 2026 (d) Still pending entry into force	1	K1	CO5
10. What is the current status of ISO 45001 (Occupational Health and Safety Management Systems) as of November 2025? (a) Still ISO 45001:2018 (no change) (b) Updated to ISO 45001:2023 with major new requirements (c) ISO 45001:2018/Amd 1:2024 (climate-action amendment only) – revision to ISO 45001:2027 underway (d) Fully replaced by ISO 55001	1	K1	CO6

PART - B (12 × 2 = 24 Marks)

Answer ALL Questions

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| 11. Whether any establishment is a factory? | 2 | K2 | CO1 |
| 12. List out the powers of inspectors. | 2 | K1 | CO1 |
| 13. Define Biomedical waste. | 2 | K1 | CO2 |
| 14. How the state Board constituted under Air Act1981? | 2 | K2 | CO2 |
| 15. What is mean by Transitional provisions? | 2 | K2 | CO3 |
| 16. List out the categories of storage tanks. | 2 | K1 | CO3 |
| 17. Which Steam Boilers and Steam Pipes are regulated ByIBR? | 2 | K1 | CO4 |
| 18. What is mean by pressure vessel? | 2 | K1 | CO4 |
| 19. How is the advisory committee formed under OSHA? | 2 | K1 | CO5 |
| 20. What is meant by ISO14000? | 2 | K1 | CO5 |
| 21. Why are ANSI standards required? | 2 | K2 | CO6 |
| 22. What is the scope of OHSAS? | 2 | K2 | CO6 |

PART - C (6 × 11 = 66 Marks)

Answer ALL Questions

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| 23. a) Explain in detail about the duties of manufactures. | 11 | K2 | CO1 |
| OR | | | |
| b) Explain in detail regarding the provisions relating to hazardous processes. | 11 | K2 | CO1 |
| 24. a) Explain in detail about the factors which influences 'environmental Protect on'. | 11 | K2 | CO2 |
| OR | | | |
| b) Discuss the penalties and procedures of Government against the water pollution. | 11 | K2 | CO2 |
| 25. a) Explain in detail about Handling techniques of liquid and Liquified gas. | 11 | K2 | CO3 |
| OR | | | |
| b) Elaborately explain the handling process of Toxic chemicals. | 11 | K2 | CO3 |
| 26. a) Explain in detail about SMPV Rules 1981. | 11 | K2 | CO4 |
| OR | | | |
| b) Explain in detail about the safety measures in the explosive rules. | 11 | K2 | CO4 |
| 27. a) How are the complaints filed as per OSHA Law? | 11 | K2 | CO5 |
| OR | | | |
| b) Explain in detail about ANSI. | 11 | K2 | CO5 |
| 28. a) Describe about the Central and state boards for the prevention and control of air pollution in detail. | 11 | K2 | CO6 |
| OR | | | |
| b) Explain about the Biomedical waste, Management and handling Rules. | 11 | K2 | CO6 |