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MIS-038

M. SC. (INDUSTRIAL SAFETY)

(MSCIDS)

Term-End Examination

June, 2026

**MIS-038 : HAZARDOUS MATERIAL
MANAGEMENT**

Time : 3 Hours

Maximum Marks : 70

Note : Answer any **five** questions. All questions carry equal marks.

1. (a) Define Hazardous Materials ? How do you classify hazardous materials ? Explain briefly. 7
- (b) What is Hazardous Material Management ? How do you manage the hazardous material in Chemical Industry ? 7

2. (a) How do you differentiate failure mode event analysis and fault tree analysis ? Explain briefly. 7
- (b) How does hazardous waste impact on Human Health ? Explain briefly. 7
3. (a) How can hazardous materials be handled safely ? Explain briefly. 7
- (b) What regulations and standards are followed while transporting hazardous materials ? Explain briefly. 7
4. (a) Explain briefly the hazardous waste treatment technologies. 7
- (b) What are the classifications of fire extinguishers used for combating different fire hazards ? Explain briefly. 7
5. (a) Discuss the health and safety precautions and procedure to be followed while sampling hazardous wastes. 7
- (b) Discuss the hazardous characteristics given under Class-C of schedule-II. 7

6. (a) Describe the analysis of organic substance hazardous wastes. 7
- (b) Explain the levels of training required for handling an emergency response for hazardous materials. 7
7. (a) Describe the maintenance and proper uses of personal protective equipment in handling hazardous materials. 7
- (b) Discuss in detail the chemical methods available for treating hazardous waste along with their advantages and disadvantages. 7
8. (a) What are the factors considered for site selection of land fill ? Explain briefly. 7
- (b) Discuss the safe handling, storage and accidental release measures of hazardous chemicals. 7
9. Write short notes on any *four* of the following : $4 \times 3.5 = 14$
- (a) Safe disposal of hazardous waste materials
- (b) Material safety data sheet

- (c) Hazard and Risk assessment tools
- (d) Risk communication
- (e) GPS and Tracking systems uses in safe transportation
- (f) Hazardous waste treatment technologies

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