

CBCS SCHEME

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18ME753

Seventh Semester B.E. Degree Examination, June/July 2024

Industrial Safety

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define the following terms as related to industrial safety:
i) Accident ii) Hazard iii) Slip iv) Fall (08 Marks)
- b. Explain Lockout and Tagout procedure followed in industries. (08 Marks)
- c. Mention any four unsafe acts and unsafe conditions that lead to industrial acts. (04 Marks)

OR

- 2 a. Write a short notes on the following :
i) Safety device ii) OSHA iii) MSDS iv) Road Safety v) WHO (10 Marks)
- b. Identify any four types of work place hazard in a process industry and explain briefly. (10 Marks)

Module-2

- 3 a. List the main objectives of fire safety. (08 Marks)
- b. List the various types in classes of fire, their extinguishers and their working principles. (08 Marks)
- c. Briefly discuss the fire triangle. (04 Marks)

OR

- 4 a. Explain the various types of fire detection and alarm system and justify its requirement in fire protection and loss prevention. (10 Marks)
- b. Classify fire extinguishers, explain with a neat sketch carbon dioxide fire extinguishers. (10 Marks)

Module-3

- 5 a. List and discuss safety measures to be followed while working with lathe machine tool. (10 Marks)
- b. Discuss briefly with the help of flow chart about storage, handling and decontamination plan for a waste drum of a hazardous substance. (10 Marks)

OR

- 6 a. List and explain briefly about the various safety precautions to be taken for handling materials with the help of Jib crane in industries. (10 Marks)
- b. Write a short note on the following :
i) PPE ii) Machine safety tools
iii) Safety for compressed gas iv) Safety for welding (10 Marks)

Module-4

- 7 a. Explain the effect of electric current on human body with examples. (08 Marks)
- b. Discuss various precautions to be taken in small and residential building installations against electrical hazard. (08 Marks)
- c. List the various hazards of electricity. (04 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. $42 \times 8 = 50$, will be treated as malpractice.

OR

- 8 a. Discuss various safety procedures and paper work to be enforced while commissioning operation and maintenance of electric installation in an electric plant. (10 Marks)
b. Explain the principles of unsafe acts and unsafe conditions behind electrical accident. Give an example. (10 Marks)

Module-5

- 9 a. Discuss briefly about eye washers and showers used in industries. (10 Marks)
b. Write a note on fire prevention safety audit in industries. (10 Marks)

OR

- 10 a. List the inspection criteria check list for piping in an LPG installation and explain (10 Marks)
b. Write an explanatory note on the safety precautions for the vehicular use of compressed natural gas. (10 Marks)

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