

--	--	--	--	--	--	--	--	--	--

## Sixth Semester B.E. Degree Examination, Dec.2023/Jan.2024 Occupational Health and 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 safety. Explain history and development of safety and precautions in different occupations. (10 Marks)
- b. Explain laws governing Occupational Safety and Health Act (OSHA). (10 Marks)

**OR**

- 2 a. Define Accident. What are the causes of accidents in a Factory? (10 Marks)
- b. Explain the steps in accidents investigations and how to analyzing the key facts in accidents. (10 Marks)

### Module-2

- 3 a. Describe the OSHA's Ergonomic guidelines. (10 Marks)
- b. Explain the Ergonomic Task Analysis with the phases of task analysis. (10 Marks)

**OR**

- 4 a. Describe the Ergonomic standards and Ergonomic programs. (10 Marks)
- b. Define 'Hazard' and discuss the various Hazard cognition and their analysis. (10 Marks)

### Module-3

- 5 a. Explain Fire Triangle. Describe fire development and its severing. (10 Marks)
- b. What are the methods of early detection of fires? Explain briefly. (10 Marks)

**OR**

- 6 a. How fires are classified explain in brief. (06 Marks)
- b. Explain different types of fire extinguishers. (06 Marks)
- c. Describe the importance of electrical safety. (08 Marks)

### Module-4

- 7 a. Describe the occupational diseases at work places and how they spread. (10 Marks)
- b. What is P.P.E? Explain the types of PPE and its advantages. (10 Marks)

**OR**

- 8 a. Briefly discuss about the EMP for safety and sustainability. (10 Marks)
- b. Mention the list of measures adopted to control the risk of occupational health. (10 Marks)

### Module-5

- 9 a. Discuss the methods of handling of chemical and safety measures in water and waste water treatment plants. (10 Marks)
- b. Explain the following hazards related to water treatment plants:
 

i) Accident hazards
ii) Chemical hazards
iii) Biological hazards

iv) Ergonomic, psychosocial and organizational factors.
(10 Marks)

**OR**

- 10 a. Discuss the occupational health hazard posed in an cement manufacturing unit. (10 Marks)
- b. Describe the roles and responsibilities of workers, managers and supervisors in safety programs in construction material manufacturing industries. (10 Marks)