



**B.E DEGREE EXAMINATIONS: APRIL / MAY 2023**

(Regulation 2018)

Sixth Semester

**MECHANICAL ENGINEERING**

U18MEE0018: Industrial Safety

**COURSE OUTCOMES**

- CO1:** Understand the industrial safety, health standards and safety measures  
**CO2:** Illustrate the philosophies behind industrial accidents and hazards  
**CO3:** Analyze about Industrial fatigue, Environmental factors and Industrial waste  
**CO4:** Discuss about human side of safety  
**CO5:** Illustrate human welfare and discuss about handling emergencies  
**CO6:** Study the different types of safety organization and acts

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-  
 PART A (10 x 2 = 20 Marks)  
 (Answer not more than 40 words)**

- |  |     |                   |
|--|-----|-------------------|
| 1. Define the necessity of industrial Safety.                                | CO1 | [K <sub>2</sub> ] |
| 2. How safety improves productivity?   | CO1 | [K <sub>2</sub> ] |
| 3. Interpret Harm and Hazard.  | CO2 | [K <sub>2</sub> ] |
| 4. Classify the General causes of industrial accidents.                      | CO2 | [K <sub>2</sub> ] |
| 5. Infer about the Types of Industrial Fatigues.                             | CO3 | [K <sub>2</sub> ] |
| 6. Explain the Purpose of a ventilation system in an industrial environment. | CO3 | [K <sub>2</sub> ] |
| 7. Spell out the types of occupational health prone area.                    | CO4 | [K <sub>2</sub> ] |
| 8. Classify the different types of Safety symbols.                           | CO5 | [K <sub>2</sub> ] |
| 9. Outline the Safety policy.  | CO6 | [K <sub>2</sub> ] |
| 10. Infer Factories act 1948.  | CO6 | [K <sub>2</sub> ] |

**Answer any FIVE Questions:-**  
**PART B (5 x 16 = 80 Marks)**  
**(Answer not more than 400 words)**

- |     |    |   |    |     |                   |
|-----|----|---|----|-----|-------------------|
| 11. | a) | Outline OSHA and explain the steps involved in the onsite inspection.                             | 8  | CO1 | [K <sub>3</sub> ] |
|     | b) | Identify the major teams related to safety responsibility and explain.                            | 8  | CO1 | [K <sub>3</sub> ] |
| 12. |    | Experiment with Types of Industrial accidents and explain.  | 16 | CO2 | [K <sub>3</sub> ] |
| 13. |    | Construct a structure for Primary and Secondary Treatment – Sewage Water and discuss.             | 16 | CO3 | [K <sub>3</sub> ] |
| 14. |    | Organize the Personal Protective Equipment required for human body industrial safety application. | 16 | CO4 | [K <sub>3</sub> ] |
| 15. |    | Identify and explain the different types of industrial employee welfare and discuss.              | 16 | CO5 | [K <sub>3</sub> ] |
| 16. | a) | Illustrate the need and functions Safety Committee.   | 8  | CO6 | [K <sub>2</sub> ] |
|     | b) | Outline the Structure of the safety committee and discuss.  | 8  | CO6 | [K <sub>2</sub> ] |

\*\*\*\*\*