

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE- SEMESTER-VII (NEW) EXAMINATION – WINTER 2024**

**Subject Code:3172426**

**Date:11-12-2024**

**Subject Name: Industrial Safety**

**Time:10:30 AM TO 01:00 PM**

**Total Marks:70**

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

- Q.1** (a) Define PPE. **03**  
(b) Explain necessity of safety color codes. **04**  
(c) Discuss importance of PPE for human safety in industry. **07**
- Q.2** (a) What are the factors associated with risk? **03**  
(b) What is role of administration in safety of an organization. **04**  
(c) Explain the section explaining “Precautions against dangerous fumes, gases, and  
Precautions regarding the use of portable electric light” in The Factories Act, 1948. **07**
- OR**
- (c) According to the Factory’s Act 1948, what are the provisions for striking gears and  
devices for cutting off power’? **07**
- Q.3** (a) State different types of industrial accidents. **03**  
(b) Explain any 2 key questions that should be asked during Accident Investigations. **04**  
(c) Describe and explain THERP. **07**
- OR**
- Q.3** (a) What are common causes of injury? **03**  
(b) State key questions that should be asked during accident Investigations. **04**  
(c) Explain Fault Tree Analysis. **07**
- Q.4** (a) State the four legs of fire safety. **03**  
(b) What is role of electrical inspector from safety point of view? Discuss briefly. **04**  
(c) What is the three stage safety model of electrical safety? Describe briefly. **07**
- OR**
- Q.4** (a) Explain the fire triangle. **03**  
(b) Compare effects of electrical shock due to AC and DC on human body. **04**  
(c) Define electric shock. Explain how it can be prevented? **07**
- Q.5** (a) State actions to be taken in case of fainting. **03**  
(b) Explain artificial respiration. **04**  
(c) Discuss Factories Act 1948 with reference to Plant. **07**
- OR**
- Q.5** (a) Discuss first aid and its requirements in industry in brief. **03**  
(b) Discuss the statement “First-aid saves life”. **04**  
(c) Discuss Factories Act 1948 with reference to health. **07**

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