

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2024****Subject Code:3154006****Date:23-05-2024****Subject Name:Health and Safety Management****Time:02:30 PM TO 05:00 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.

MARKS

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|------------|------------|---|-----------|
| Q.1 | (a) | What is health and safety management system and what is its importance? | 03 |
| | (b) | Briefly explain the following terms: health, safety, accident, near miss. | 04 |
| | (c) | Differentiate between direct and indirect costs of an accident, explain them using examples. | 07 |
| Q.2 | (a) | Define occupational hazards? Classify them. | 03 |
| | (b) | Differentiate between hazard and a risk | 04 |
| | (c) | Explain the key elements required for an effective health and safety management system. | 07 |
| OR | | | |
| | (c) | Explain the hierarchy of controls | 07 |
| Q.3 | (a) | What is health screening and why is it important? | 03 |
| | (b) | Discuss occupational hygiene and its key elements. | 04 |
| | (c) | Explain PPE in detail, what are its characteristics? | 07 |
| OR | | | |
| Q.3 | (a) | What is first-aid and what are the steps involved in delivering first aid? | 03 |
| | (b) | List out the contents of a standard first aid kit? | 04 |
| | (c) | What are some of the OHS legislations in India? Explain any one of them in detail. | 07 |
| Q.4 | (a) | Explain fire triangle. | 03 |
| | (b) | What are the different modes of heat transfer. | 04 |
| | (c) | Explain in detail fire hazard, the types of fuel and sources of ignition and the methods of extinction. | 07 |
| OR | | | |
| Q.4 | (a) | What are biological and chemical hazards? | 03 |
| | (b) | Briefly explain the hazards at a construction site. | 04 |
| | (c) | Explain electrical hazards and the ways in which they can be controlled. | 07 |
| Q.5 | (a) | What is HAZOP? | 03 |
| | (b) | Describe risk assessment and the steps involved in it. | 04 |
| | (c) | What are the employer's responsibilities under OSHA? | 07 |
| OR | | | |
| Q.5 | (a) | What is LOPA? | 03 |
| | (b) | What is hazard identification? Explain HAZID. | 04 |
| | (c) | What are the employee's basic rights under OSHA? | 07 |
