

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering - SEMESTER - 1/2 EXAMINATION - WINTER 2025

Subject Code: BE02000061

Date: 03-01-2026

Subject Name: Industrial Safety and Standards

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) Explain in details of various types of Industrial accidents. | 03 |
| (b) Explain incidence rate and severity rate for Monitoring Safety Performance. | 04 |
| (c) Justify the requirement for Safety policy and safety standards for Industry and organization. | 07 |
| Q.2 (a) List the types of hazards. | 03 |
| (b) Write a short note on “salient points of factories act 1948 for health and safety”. | 04 |
| (c) Explain Fire and explosion hazard rating of process plants. | 07 |

OR

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| (c) Explain the structure of hazard identification and risk assessment in detail. | 07 |
| Q.3 (a) Write short note on “Service life of equipment”. | 03 |
| (b) Explain types and applications of tools used for maintenance. | 04 |
| (c) Explain all responsibility of maintenance department. | 07 |

OR

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| (a) List all wear reduction methods. | 03 |
| (b) Explain type of wear and its cause. | 04 |
| (c) List and explain any one corrosion prevention method. | 07 |

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| Q.4 (a) Classify lubricants in details. | 03 |
| (b) Explain all factors affecting the corrosion. | 04 |
| (c) Explain decision tree concept and its applications. | 07 |

OR

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| (a) Draw a flow chart of fault-finding sequence. | 03 |
| (b) Write short note on” Fault tracing and its importance”. | 04 |
| (c) Explain different types of faults in machine tools and its causes. | 07 |

Q.5 (a) Differentiate between Periodic and preventive maintenance. **03**
(b) Explain Steps for periodic and preventive maintenance of electrical motor. **04**
(c) Explain Repair cycle concept and importance. **07**

OR

(a) Identify different advantages of preventive maintenance. **03**
(b) Explain Steps for periodic and preventive maintenance of Diesel generating (DG) sets. **04**
(c) Explain overhauling of mechanical components in details. **07**
