

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.**

	<b>Marks</b>
<b>Q.1 (a)</b> Explain in details of various types of Industrial accidents.	<b>03</b>
<b>(b)</b> Explain incidence rate and severity rate for Monitoring Safety Performance.	<b>04</b>
<b>(c)</b> Justify the requirement for Safety policy and safety standards for Industry and organization.	<b>07</b>
<b>Q.2 (a)</b> List the types of hazards.	<b>03</b>
<b>(b)</b> Write a short note on “salient points of factories act 1948 for health and safety”.	<b>04</b>
<b>(c)</b> Explain Fire and explosion hazard rating of process plants.	<b>07</b>
<b>OR</b>	
<b>(c)</b> Explain the structure of hazard identification and risk assessment in detail.	<b>07</b>
<b>Q.3 (a)</b> Write short note on “Service life of equipment”.	<b>03</b>
<b>(b)</b> Explain types and applications of tools used for maintenance.	<b>04</b>
<b>(c)</b> Explain all responsibility of maintenance department.	<b>07</b>
<b>OR</b>	
<b>(a)</b> List all wear reduction methods.	<b>03</b>
<b>(b)</b> Explain type of wear and its cause.	<b>04</b>
<b>(c)</b> List and explain any one corrosion prevention method.	<b>07</b>
<b>Q.4 (a)</b> Classify lubricants in details.	<b>03</b>
<b>(b)</b> Explain all factors affecting the corrosion.	<b>04</b>
<b>(c)</b> Explain decision tree concept and its applications.	<b>07</b>
<b>OR</b>	
<b>(a)</b> Draw a flow chart of fault-finding sequence.	<b>03</b>
<b>(b)</b> Write short note on” Fault tracing and its importance”.	<b>04</b>
<b>(c)</b> Explain different types of faults in machine tools and its causes.	<b>07</b>

- 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**

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