

Enrolment No./Seat No _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII EXAMINATION – SUMMER 2025

Subject Code:3172217

Date:21-05-2025

Subject Name:Safety Engineering

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

Q.1	(a)	Discuss the accidents classifications on different bases.	03
	(b)	Describe the purpose and procedure for investigation of accident.	04
	(c)	Explain the functions and features of emergency organization.	07
Q.2	(a)	Discuss the unsafe act and unsafe conditions.	03
	(b)	Explain the constitution of safety committees.	04
	(c)	Explain assessment and evaluation of training schemes.	07
OR			
	(c)	Explain the procedure for maintaining training records and reports.	07
Q.3	(a)	Differentiate between hazards and risks.	03
	(b)	Describe the accident prevention and corrective action.	04
	(c)	Explain the process of risk management.	07
OR			
Q.3	(a)	Discuss the measurement of safety efficiency.	03
	(b)	Describe the risk components and its types.	04
	(c)	Explain the hazards identification and risk assessment.	07
Q.4	(a)	Discuss the accident rates for measurements of safety performance.	03
	(b)	Describe the different aids for the motivation of workers.	04
	(c)	Explain the pit safety committee and its function.	07
OR			
Q.4	(a)	Discuss the different techniques of training.	03
	(b)	Describe the different steps for creating and maintaining safety awareness.	04
	(c)	Explain the structure of the report of inquiry into an accident.	07
Q.5	(a)	Discuss the process for determination of accident proneness in mining operation.	03
	(b)	Describe the causes behind any accident takes place in mines.	04
	(c)	Explain the steps taken for the development of safe behavior in Indian mines.	07
OR			
Q.5	(a)	Discuss the accident and incident analysis.	03
	(b)	Describe the safety management systems in Indian mining industry.	04
	(c)	Explain the job safety analysis.	07
