

GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Code:3172217

Date:07-12-2024

Subject Name: Safety Engineering

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.

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