

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2022****Subject Code:3172426****Date:07-01-2023****Subject Name:Industrial Safety****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
<b>Q.1</b>	(a) What is an industrial injury? Explain briefly with an example.	<b>03</b>
	(b) What is role of National Safety Council?	<b>04</b>
	(c) Discuss the statement “PPE are important for human safety in industry”.	<b>07</b>
<b>Q.2</b>	(a) What are the factors associated with risk?	<b>03</b>
	(b) Explain briefly impact of factors associated with risk (as in Q2(a)) on the selection of accident controls.	<b>04</b>
	(c) What are the provisions for ‘striking gears and devices for cutting off power’ in The Factories Act, 1948?	<b>07</b>
<b>OR</b>		
	(c) In The Factories Act, 1948, which section(s) explains the Precautions against dangerous fumes, gases, and Precautions regarding the use of portable electric light? Also explain the same.	<b>07</b>
<b>Q.3</b>	(a) What are common causes of injury?	<b>03</b>
	(b) Which are the key questions that should be asked during accident investigations? Explain any two questions briefly.	<b>04</b>
	(c) What are different types of Industrial Accidents? Explain each briefly.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) What is THERP?	<b>03</b>
	(b) Explain THERP Briefly.	<b>04</b>
	(c) What is FTA (Fault Tree Analysis)? Explain FTA.	<b>07</b>
<b>Q.4</b>	(a) What is fire? Explain need of fire safety.	<b>03</b>
	(b) State factors contributing to fire.	<b>04</b>
	(c) State stages of fire. Also explain how fire is spread.	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) State common causes of electrical hazards.	<b>03</b>
	(b) What is effect of electrical current on human body?	<b>04</b>
	(c) State various types of protections against electrical hazards. Explain any one protection among these.	<b>07</b>
<b>Q.5</b>	(a) What is need of first aid?	<b>03</b>
	(b) What are general rules of first aid?	<b>04</b>
	(c) Explain artificial respiration.	<b>07</b>
<b>OR</b>		
<b>Q.5</b>	(a) What is first aid for burns?	<b>03</b>
	(b) What is a fracture? State any three causes of fracture.	<b>04</b>
	(c) What are first aid and treatment for fracture?	<b>07</b>

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