Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY ME- SEMESTER II— EXAMINATION – SUMMER 2015

	U	Code: 2723013 Date:01/06/201	15
Tir	ne: 2	Attempt all questions. Make suitable assumptions wherever necessary.	70
Q.1	(a)	Explain Hazard and Operability Study (HAZOP) with all guidelines and GATEs.	07
	(b)	Write short note on risk analysis and risk acceptance criteria.	07
Q.2	(a)	Enlist any six elements of Process Safety Management and briefly explain any two of them.	07
	(b)	Write short note on risk management and mitigation. OR	07
	(b)	Explain Fault Tree Analysis method of hazard identification.	07
Q.3	(a) (b)	What is toxicology? What are the essential elements of any toxicology study? What are the three phases involved in any industrial hygiene project? Explain each briefly.	07 07
Q.3	(a)	OR What is a toxicant? What are the different modes by which a toxicant enters into a human body?	07
	(b)	Define: a) Risk b) Safety c) Hazard. What are the essential features of any safety program?	07
Q.4	(a) (b)	Derive an expression for estimating worker exposure to the toxic vapours. List different dispersion models and explain any one in detail. OR	07 07
Q.4	(a)	Explain Safety rules & regulations for transportation, storage and handling of hazardous materials	07
	(b)	Explain different types of charge accumulation and charge discharge.	07
Q.5	(a)	What is interlock/tripping system? Explain different types of interlock system. Give one example with proper diagram.	07
	(b)	Write the lesson learned from the case studies of design failure. OR	07
Q.5	(a)	What is Ventilation? Explain positive ventilation and negative ventilation with diagram.	07
	(b)	Explain safe operating procedures in Industries.	07
