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Total Number of Pages : 01

M.TECH

AR-19

M.TECH 1ST SEMESTER EXAMINATIONS NOV/DEC 2019

CE, MPECH1054

SAFETY IN CHEMICAL INDUSTRIES

Time: 3 Hours

Max Marks : 70

The figures in the right hand margin indicate marks.

PART-A

(10 X 2=20 MARKS)

1. Answer the following questions.

- Which gas came from Seveso disaster?
- What are the common routes of entry of toxic agents to our body?
- What is dose threshold?
- Write the steps of prevention and control of confined space hazards
- What are the common sources of ignition?
- What do you mean by auto ignition temperature?
- Write the steps of process of risk management.
- Differentiate probability and reliability.
- What is failure rate?
- What is the objective of fault tree analysis?

PART-B

(5 X 10=50 MARKS)

Answer any FIVE questions

- Q2 a) Write short note on Bhopal gas tragedy.
 b) Write short note on Flixborough disaster.
- Q3 Enumerate about the formation of airborne toxicants and their effects.
- Q4 Write the steps to reduce and control the reactive hazards in chemical industry.
- Q5 Explain about the parameters considered in designing the chemical plant.
- Q6 Explain about the different hazards in ammonia plants.
- Q7 Write the steps of safety review in chemical plant. How it can be applied to petrochemical plants?
- Q8 Explain about the purpose, advantages and weakness of HAZOP.