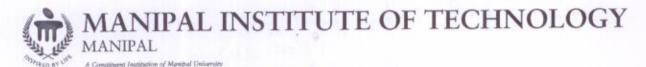
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VII SEMESTER B.TECH. (CHEM.ENGG) END SEMESTER EXAMINATIONS, NOV 2022

SUBJECT: Risk and safety Management in Process Industries

[CHE 4071]

REVISED CREDIT SYSTEM

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- Answer ALL the questions.
- Missing data may be suitable assumed.

| 1A. | Explain the system safety process with a flow chart | 4 | | |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--|--|
| 1B. | What is a fault tree analysis? How is it accomplished in the process industries? | 3 | | |
| 1C. | Explain the procedure to be followed in an emergency fire. | 3 | | |
| 2A. | Discuss any 3 types of mechanical respirators as classified by MSHA and NIOSH. | 3 | | |
| 2B. | | | | |
| 2C. | Explain HCF (Hazard Causal factor) model with a diagram. | 3 | | |
| 3A. | List the application areas of quantitative risk assessment and elucidate the frequency- consequence relationship | 4 | | |
| 3B. | Discuss the fuel-air mixtures and flash point relationship from a hazard control perspective. | 3 | | |
| 3C. | A STATE OF THE STA | | | |
| 4A. | Discuss the risk assessment of Bhopal gas tragedy | 3 | | |
| 4B. | The organization's director of safety performs a number of significant tasks. Discuss any eight such tasks. | | | |
| 4C. | Discuss the safety measures that had to be implemented in Seveso disaster. | 3 | | |
| 5A. | What, briefly, is the William- Steiger Act? | 3 | | |
| 5B. | What are the four steps of Industrial safety efforts that have been referred to as the people safety program? | 3 | | |
| 5C. | Safety in industry today is largely a matter of complying with government regulation. Justify the statement | 4 | | |

CHE 4071 Page 1 of 1