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MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL

A Constituent Institution of Manipal University

VII SEMESTER B.TECH. (CHEM.ENGG)

MAKE UP SEMESTER EXAMINATIONS, DEC 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.	With a diagram discuss the events that lead to an accident.	4
1B.	What is FMEA analysis? Explain the process of FMEA analysis?	3
1C.	Discuss the three categories of occupational injuries	3
2A.	Why are rupture discs are inadvisable for use in vessels containing flammable gases or highly volatile flammable liquids.	3
2B.	Briefly explain the hierarchy of hazard reduction	4
2C.	What are the results of safety analysis?	3
3A.	What is Performance Shaping Factors? How is it classified? Explain any one such classification	4
3B.	What are the precautions that are to be taken while setting up a boiler room?	3
3C.	List any three classes of fire with examples.	3
4A.	Summarize the effects of Bhopal gas tragedy	3
4B.	Elucidate the role of housekeeping in fire prevention.	4
4C.	Discuss the key considerations in organizing fire protection.	3
5A.	Relate the effect of duration and frequency to chemical exposure.	4
5B.	Describe any one type of a respiratory protective device	3
5C.	List the information that is made available on MSD sheet.	3