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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY  
SECOND SEMESTER (R) M Tech DEGREE EXAMINATION, MAY 2024

**Discipline: MECHANICAL ENGINEERING**

**Course Code & Name: 222EPE049 INDUSTRIAL SAFETY**

Max. Marks: 60

Duration: 2.5 Hours

**PART A**

*Answer all questions. Each question carries 5 marks*

Marks

- 1 Define the term industrial safety. Explain its significant role in industry. (5)
- 2 Explain the importance of safety education and training. are the various human factors contributing to accidents? (5)
- 3 Differentiate between FTA and FMECA. (5)
- 4 With suitable block diagram, explain the elements of safety management systems (SMS). (5)
- 5 Explain the role of factories act in industrial safety. (5)

**PART B**

*Answer any 5 questions. Each question carries 7 marks*

- 6 Define Accident. Explain any three unsafe acts which are responsible for accidents in industries. (7)
- 7 State the types of hazards in a petrochemical industry and explain any three in detail with possible causes and remedial actions. (7)
- 8 With suitable examples explain how does safety management improve productivity of a firm. (7)
- 9 With the help of a diagram, explain the integral elements of ISD with any example. (7)
- 10 What is the work men's compensation act and explain the main features of the same? Also narrate the possible reasons for which compensation may not be given to employee. (7)
- 11 Explain the key functions of any three different types of respiratory protective equipment's. (7)
- 12 Describe the logics of consequence analysis of toxic gas release. (7)