

(3 Hours)

Total Marks: 80

**N.B.**

1. Question No. 1 is Compulsory.
- 2 Attempt any Three Questions from remaining Five Questions
3. Assume Suitable Data if needed and Justify the Same
4. Figures to the right indicate full marks.

**Que.1**

- a) Explain Chernobyl Disaster [05]
- b) Explain in detail Classification of fires [05]
- c) Explain different types of relief. [05]
- d) Explain Safety precautions for working on pipelines [05]

**Que.2**

- a) Explain Root Cause Analysis (RCA) and Event tree analysis [10]
- b) Explain in detail Process safety Hierarchy [10]

**Que.3**

- a) Explain Accident prevention and control techniques [10]
- b) Explain in detail Phases of industrial hygiene [10]

**Que.4**

- a) Explain Fire and Explosion prevention methods [10]
- b) Explain Different types of portable fire extinguishers [10]

**Que.5**

- a) Explain characterization of reactive chemical using calorimeter [10]
- b) Write short note on causes of dust explosions and controls [10]

**Que.6**

- Write short note on [20]
- a) Hazard and Operability Studies (HAZOP)
  - b) BLEVE
  - c) Bhopal disaster (1984)
  - d) Carbon-dioxide flooding system

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