

B.TECH. Degree Examinations, December 2020  
Seventh Semester  
**CH16702– CHEMICAL PROCESS PLANT SAFETY**  
**(Regulation 2016)**

**Time: Three Hours**

**Maximum : 80 Marks**

Answer **ALL** questions

**PART A (8 X 2 = 16 Marks)**

1. The \_\_\_\_\_ on the Response vs Dose curve is called the threshold dose.
2. HAZOP is a technique designed to \_\_\_\_\_ to people, plants and environment.
3. In addition to impact and penetration resistance which helmet provides electrical protection from high-voltage conductors
  - a. Class A helmets
  - b. Class B helmets
  - c. Class C helmets
  - d. Class D helmets
4. The correct definition of the fire is
  - a. A chemical reaction from which heat and light are emitted
  - b. Hot orange stuff
  - c. A south coast radio station
  - d. A Jimi Hendrix song
5. Appraise the necessity of training at various levels of employee.
6. Illustrate the precautions to be taken while handling hazardous chemicals.
7. Write the selection criteria for ear protective equipment's.
8. "Proper maintenance prevents accidents" – Justify this statement.

**PART B (4 X 16 = 64 Marks)**

11. (a) Identify the elements of safety program in chemical industries and demonstrate the effectiveness. **(16)**
- (OR)**
- (b) Relate the importance of safety consciousness and social environmental set up in Indian Chemical industry. **(16)**
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12. (a) Identify the potential hazards associated with chemical process industries particularly in handling and storage of dangerous and toxic chemicals and radioactive materials. **(16)**

**(OR)**

- (b) Analyse the basic procedure for job safety and list out the advantages of job safety analysis. (16)

13. (a) Demonstrate the importance of periodic advice and regular safety inspection, help in getting better safety performance. (16)

**(OR)**

- (b) Illustrate various personal protective equipment (PPE) used and their importance in chemical process industries. (16)

14. (a) Relate the importance of periodic advice and regular safety inspection, help in getting better safety performance. (16)

**(OR)**

- (b) (i) Write detailed classification of fire and fire extinguishers. (8)

- (ii) Give a detail account on fire prevention and protection (8)