

Reg. No.

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B.E. / B.TECH. DEGREE EXAMINATIONS, DEC 2019

Seventh Semester

CH16702 – CHEMICAL PROCESS PLANT SAFETY*(Chemical Engineering)***(Regulation 2016)****Time: Three Hours****Maximum : 100 Marks**

Answer ALL questions

PART A - (10 X 2 = 20 Marks)

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|--|----|-----|
| 1. Give the importance of safety program in protecting the environment. | 1 | U |
| 2. State the three approaches, which are used to reduce industrial accidents that contribute a safe working environment. | 1 | R |
| 3. How do you handle the hazardous chemicals safely? | 2 | AP |
| 4. Mention few highly radioactive materials. | 2 | R |
| 5. “Periodic advice in a plant is must”- Justify | 2 | U |
| 6. Indicate the personal protective equipments which are used in mining and chemical Process industries. | 2 | R |
| 7. Is it a legal requirement to investigate accidents? | 4 | AN |
| 8. Draw the fire triangle. | 4 | E |
| 9. Name any two safety organization promoting safety in process industries. | 3 | U |
| 10. List out the safety organization promoting safety in India. | 3 | R |

PART B - (5 X16 = 80 Marks)

11. (a) Explain all the elements of safety program used in chemical Process **(16)** **1** **U**
industries.

(OR)

- (b) Discuss the importance of safety training at various levels of **(16)** **1** **U**
operation.

12. (a) List the various measures available for protection against the reaction hazards with their merits and demerits. **(16) 2 AN**

(OR)

- (b) Give the safety precautions in operating high pressure and high temperature operating vessels. **(16) 2 AN**

13. (a) Demonstrate about safety appraisal and effective steps to implement the safety procedures. **(16) 4 AP**

(OR)

- (b) (i) Explain the important factors of plant layout as far as safety aspects are concerned in detail. **(8) 4 AN**
- (ii) Tabulate the various PPE used for the different chemical and physical hazard. **(8) 4 AN**

14. (a) (i) Describe about the identification of accident spots and remedial measures. **(8) 4 AN**

- (ii) Explain the four components of anatomy of accidents. **(8) 4 AN**

(OR)

- (b) Give a detail account on fire extinguishers, fire prevention and protection. **(16) 4 AN**

15. (a) Explain about the industrial health hazards, health standards and safe working environment. **(16) 3 U**

(OR)

- (b) Explain the role of Management and government on promoting safety in chemical Industries. **(16) 3 U**