

A

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 59923

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

Elective

Chemical Engineering

15UCH923- CHEMICAL PROCESS PLANT SAFETY

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Industrial safety management is the branch of management which is concerned with _____ hazards from the industries. CO1- R
(a) Reducing (b) Controlling (c) Eliminating (d) All of the above
2. Any unplanned happening is CO1- R
(a) Accident (b) Hazard (c) Risk (d) All of the above
3. The chemical that possess narcotic property is CO2- R
(a) Trichloroethylene (b) Benzene (c) Chromium (d) Alkaloids
4. Hazardous materials are classified as CO2- R
(a) Flammables (b) Explosives (c) Radioactive (d) All of the above
5. Implementation of Safety can be through CO3- R
(a) Safety Audit (b) Safety Week (c) Safety Day (d) All of the above
6. Method of maintenance made after the equipment is out of order CO3- R
(a) Scheduled (b) Preventive (c) Breakdown (d) Predictive
7. Water is used to extinguish CO4- R
(a) Class-A fires (b) Class-B fires (c) Class-C fires (d) All of the above
8. Class-A fire consists of fire due to CO4- R
(a) Wood (b) Oil (c) Transformer (d) Chemical

9. Decibel (db) is a unit used to measure CO5- R
 (a) Light (b) Sound (c) Frequency (d) None of the above
10. Which among the following is not a HAZOP guide word CO5- R
 (a) More (b) Less (c) As well as (d) Between

PART – B (5 x 2= 10 Marks)

11. Define tolerance limit. CO1- R
12. Mention the types of layouts. CO2- R
13. Give the types of Safety Audit. CO3- R
14. Name four ways whereby one could prevent accidents. CO4- R
15. List few safety organizations. CO5- R

PART – C (5 x 16= 80 Marks)

16. (a) Explain the elements of a good safety programme. CO1- U (16)
- Or
- (b) Safety is an important aspect in chemical process industries – CO1- U (16)
 Elucidate with a case study.
17. (a) Explain the methods of storage and preservation of materials in CO2- U (16)
 chemical industries.
- Or
- (b) Discuss in detail about the dangerous properties and effects of CO2 -U (16)
 chemicals.
18. (a) Explain in detail about steps to implement safety procedures in an CO3- U (16)
 industry.
- Or
- (b) Elaborate the process of Safety Audit in detail. CO3- U (16)

19. (a) Explain in detail the possible causes of chemical process industry accidents. CO4- Ana (16)

Or

(b) Describe the causes and preventive measures of industrial accidents with a case study. CO4- Ana (16)

20. (a) Write short notes on chemical and radiation hazards. CO5- U (16)

Or

(b) Discuss the Factories and Labour Welfare Act. CO5- U (16)

