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Question Paper Code: 59772

B.E./B.Tech. DEGREE EXAMINATION, DEC 2021

Open elective

Civil Engineering

15UME972 - INDUSTRIAL SAFETY AND ENGINEERING

(Common to CSE, ECE, EEE, EIE ,IT and Chemical Engineering branches)

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. The type of layout used for manufacturing steam turbines, is CO1- R
(a) Product layout (b) process layout
(c) fixed position layout (d) any one of these
2. Standard time is equal to CO1- R
(a) Normal time minus allowances
(b) Normal time plus allowances
(c) Representative time multiplied by rating factor
(d) Normal time taken by an operation
3. MBO was invented by _____. CO2- R
(a) Peter Drucker (b) Koontz & O 'Donell
(c) Henry Fayol (c) Henry Fayol
4. The end result of risk management is CO2- R
(a) To eliminate danger to the public (b) To minimize cost to the company
(c) To reduce risk to an acceptable level (d) None of the above

5. Which of the following is the primary reason for accident investigation? CO3- R
design?
- (a) To identify a scapegoat (b) To take disciplinary action
(c) To prevent future accidents (d) None of the above
6. According to research, approximately how many near miss events occur CO3- R
for each major injury?
- (a) 50 (b) 100 (c) 150 (d) 300
7. Which of the following specific procedures must your training include, to CO4- R
protect you from exposure to hazardous chemicals?
- (a) Appropriate work practices (b) Emergency procedures
(c) Personal protective equipment (d) All of the above
8. Which of the following involves redesigning of equipment, machinery CO4- R
and material for the safe performance of the jobs?
- (a) Safety engineering (b) Safety campaigns
(c) Safety committee (d) Safety training
9. Protection of organizational facilities and employees is called CO5- R
- (a) Adverse situation (b) Security (c) Safety (d) Health
10. Industrial safety management is that branch of management which is CO5-R
concerned with _____ hazards from the industries.
- (a) Reducing (b) controlling (c) eliminating (d) all of the above

PART – B (5 x 2= 10 Marks)

11. How the modern safety concept is evolved ? CO1- U
12. Briefly explain about safety audit. CO2-U
13. Define accident CO3- U
14. What is meant by Brain Storming? CO4- U
15. What are the requirements for effective control? CO5- U

PART – C (5 x 16= 80 Marks)

16. (a) Analyze the history of safety movement in india CO1- Ana (16)

Or

- (b) Illustrate how safety committee meeting is arranged and conducted and prepare sample minutes of the safety committee meeting conducted. CO1- Ana (16)
17. (a) Explain the various areas H & S management audits. CO2-App (16)
Or
- (b) Explain the procedures to identify the unsafe condition of workers. CO2-App (16)
18. (a) Give the details of safety committee responsibility. CO3- U (16)
Or
- (b) Sketch and explain the general model of safety work. CO3- U (16)
19. (a) Discuss about permanent total disabilities, permanent partial disabilities and temporary total disabilities. CO4- U (16)
Or
- (b) Discuss about the lost workday cases incidence rate (LWDI) CO4- U (16)
20. (a) Explain Scope and Objectives of Training and Education CO5- U (16)
Or
- (b) Explain in detail on OSHA “Occupational Safety and Health Administration” CO5- U (16)

