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**Question Paper Code: 59772**

B.E./B.Tech. DEGREE EXAMINATION, DEC 2020

Open elective

Civil Engineering

15UME972 - INDUSTRIAL SAFETY AND ENGINEERING

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

(Regulation 2015)

Duration: 1.15 hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

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. The cost of a product change to correct safety defects is greatest CO2- R  
(a) After the product has been manufactured and installed  
(b) After the product has been patented  
(c) During the manufacturing phase  
(d) During the design phase
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. JSEAs add environmental concerns such as \_\_\_\_\_ into the CO3- R  
 formula.  
 (a) Weather (b) Importance (c) Time (d) Ease
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 data is not required for hazard identification? CO4- R  
 (a) Land use (b) Contaminant levels (c) Affected population (d) Estimation of risk
9. Protection of organizational facilities and employees is called CO5- R  
 (a) Adverse situation (b) Security (c) Safety (d) Health
10. Gantt chart provides information about CO5-R  
 (a) Production schedule (b) Inventory control  
 (c) Material handling (d) Material handling

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. How employee can be motivated so as to wear PPE while working? CO1- Ana (8)
12. Identify the practical use of Preliminary Hazard Analysis. CO2-Ana (8)
13. Explain in detail about role of Safety committee and supervisory role CO3- U (8)
14. Explain the General risk-management principles. CO4- U (8)
15. Explain Scope and Objectives of Training and Education. CO5- U (8)

