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Reg. No. :

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**Question Paper Code: 99772**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2022

Open elective

Civil Engineering

19UME972- INDUSTRIAL SAFETY AND ENGINEERING

(Common to CSE, ECE, EEE, IT, Chemical, Agri, BME, CSBS & Biotechnology)

(Regulations 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Industrial safety management is that branch of management which is concerned with \_\_\_\_\_ hazards from the industries. CO1- U  
(a) Reducing (b) controlling (c) eliminating (d) all of the above
2. Bhopal Tragedy happened in the year CO1- U  
(a) 1972 (b) 1964 (c) 1984 (d) 1974
3. Probability of the event that might occur X Severity of the event if it occurs = CO2- U  
(a) Accident (b) Hazard (c) Risk (d) None of the above
4. Industrial safety management is that branch of management which is concerned with \_\_\_\_\_ hazards from the industries. CO2- U  
(a) Reducing (b) Controlling (c) Eliminating (d) All of the above
5. The primary reason for accident investigation is: CO3- U  
(a) To identify a scapegoat (b) To find fault  
(c) To take disciplinary action (d) To prevent future accidents
6. According to research, approximately how many near miss events occur for each major injury? CO3- U  
(a) 50 (b) 100 (c) 150 (d) 300
7. Probability of the event that might occur X Severity of the event if it occurs = CO5- U  
(a) Accident (b) Hazard (c) Risk (d) None of the above

8. Identify the prevention of injuries from occurring at work. CO5- U  
 (a) Keeping the workplace tidy (b) Wearing light clothing  
 (c) Lifting heavy objects with a bent back (d) Keeping lighting to minimum
9. Industrial safety management is that branch of management which is concerned with \_\_\_\_\_ hazards from the industries. CO6- U  
 (a) Reducing (b) controlling (c) eliminating (d) all of the above
10. The safety month, focusing on key areas to help keep your employees healthy and safe is: CO6- U  
 (a) October (b) November (c) December (d) January

PART – B (5 x 2= 10Marks)

11. Outline any four items in a standard safety inspection check list. CO1- U
12. Explain the important features of IS 14489 : 1998. CO2- U
13. Explain domino sequence CO3- U
14. Explain temporary total disabilities CO5- U
15. Explain Importance of training CO6- U

PART – C (5 x 16= 80 Marks)

16. (a) Examine the functions of Line and Staff organizations regarding safety. CO1- U (16)  
 Or  
 (b) Suppose you were given authority to establish methods for accident control in a large manufacturing concern, explain the procedures you would set up. CO1- U (16)
17. (a) Explain in detail about the perusal of accident and safety records CO2- U (16)  
 Or  
 (b) Select the procedures to identify the unsafe condition of workers. CO2- U (16)
18. (a) Explain in detail about the accident investigation and analysis CO4- U (16)  
 Or  
 (b) Explain in detail about the cost of accident. CO4- U (16)
19. (a) Explain about permanent total disabilities, permanent partial disabilities and temporary total disabilities. CO5- U (16)  
 Or  
 (b) Explain in detail about the lost workday cases incidence rate (LWDI ) CO5- U (16)

20. (a) Explain in detail about training methods programmes, seminars, conferences, competitions for safety education. CO6- U (16)
- Or
- (b) Explain in detail about by creating awareness, awards, and celebrations to establish safety protocols. CO6-U (16)

