A **Reg. No. :** | | | | | | | | | | |

Question Paper Code: 59772

B.E./B.Tech. DEGREE EXAMINATION, NOV 2018

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. Break even analysis is a CO1- R

   (a) Short term analysis (b) Long term analysis

   (c) Average of short and long term analysis (d) Any one of these

2. Which one of the following techniques is used for determining allowances in time study CO1- R

   (a) Acceptance sampling (b) Linear regression

   (c) Performance rating (d) Work sampling

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? design? CO3- R

(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 formula. CO3- R

(a) Weather (b) Importance (c) Time (d) Ease

7. Which of the following specific procedures must your training include, to protect you from exposure to hazardous chemicals? CO4- R

(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) Inventory control (b) Production schedule

(c) Material handling (d) Machine utilization

PART – B (5 x 2= 10 Marks)

11. List two advantages of job safety analysis. CO1- U

12. What are the many types of safety audit? CO2-U

13. Define institutional bio safety committee. CO3- Ana

14. Explain Sound Hazards. CO4- U

15. Explain the DGFASLI. 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)	Identify the practical use of job safety analysis.	CO2-Ana	(16)
		Or		
	(b)	Illustrate the Fault tree Analysis procedure with an example.	CO2-Ana	(16)
18.	(a)	Explain in detail about accident, incident, near miss and dangerous occurrence reporting procedures	CO3- U	(16)
		Or		
	(b)	Explain the detail about principles of accident prevention.	CO3- U	(16)
19.	(a)	Explain the General risk-management principles.	CO4- U	(16)
		Or		
	(b)	Explain the Protection against crushing hazards.	CO4- U	(16)
20.	(a)	Explain Scope and Objectives of Training and Education.	CO5- U	(16)
		Or		
	(b)	Explain the case study in chemical workers hazardous waste worker education.	CO5- U	(16)