

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

SEVENTH SEMESTER B.TECH DEGREE EXAMINATION (S), FEBRUARY 2024

COMMON TO ALL BRANCHES

(2020 SCHEME)

Course Code : 20MCN401

Course Name: Industrial Safety Engineering

Max. Marks : 50

Duration: 2 Hours

PART A

(Answer all questions. Each question carries 3 marks)

1. Name three unsafe practices that cause accidents in workplaces.
2. What role do frequency rate and incidence rate play in the safety analysis?
3. Describe any three crucial safety precautions for excavation work.
4. Identify any three possible risks related to the use of wire rope for material handling.
5. Explain the Hazard and Operational Analysis (HAZOP) process.

PART B

(Answer one full question from each module, each question carries 7 marks)

MODULE I

6. Explain the responsibilities of safety officers in the implementation of safety in industries. (7)

OR

7. Explain Domino theory and multiple causation theory (7)

MODULE II

8. Explain the importance of eye protection and describe some of the eye protection equipment (7)

OR

9. Explain work permit for hot work and cold work (7)

MODULE III

10. Write a note on important types of ergonomic hazards associated with industries. (7)

OR

11. What are the safety precautions to be taken before entering a confined space? (7)

MODULE IV

12. Discuss the handling capacity assessment for lifting process associated with manual material handlings. (7)

OR

13. Describe a few machine guarding devices that are employed in industry. Discuss each machine guarding device's effectiveness. (7)

MODULE V

14. Explain the important features and functions of any four different types of fire extinguishers. (7)

OR

15. a) Determine different types of chemical hazards associated with industry (3)
b) Briefly explain the different sections of Material Safety data sheets (4)
