

Register No.: ..... Name: .....

## SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

**SEVENTH SEMESTER B.TECH DEGREE EXAMINATION (R), DECEMBER 2023**

**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. What are the unsafe practices that can cause accidents at workplace?
2. Differentiate Hot and Cold work permits.
3. What are the various hazards that can occur during different stages of building construction?
4. How safety should be ensured during gas welding?
5. List the various types of fire extinguishers.

### PART B

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

#### MODULE I

6. How industrial accidents occur? Explain. (7)

**OR**

7. What are the different theories of accidents. (7)

#### MODULE II

8. Prepare short notes on the different types of PPE's (7)

**OR**

9. Explain '5S' of housekeeping. (7)

#### MODULE III

10. Ergonomic risk factors lead to Musculoskeletal Disorders (MSD). Express your opinion about the statement and briefly elaborate. (7)

**OR**

11. What are the different types of safety practices in excavation works? (7)

#### MODULE IV

12. Explain manual handling risk assessment. (7)

**OR**

13. Which are the various types of machine guarding devices used in industries? (7)

**MODULE V**

14. Explain the different phases in HAZOP methodology. (7)

**OR**

15. List and discuss the various types of chemical hazards. (7)

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