

Register No.:

**9003**

**October 2025**

*Time – Two hours*  
*(Maximum Marks: 60)*

- N.B.**
1. Answer all questions under Part-A. Each question carries 1 mark.
  2. Answer any 5 questions under Part-B. Each question carries 2 marks.
  3. Answer any 3 questions under Part-C. Each question carries 10 marks.

**PART – A**

1. The primary goal of safety inspection is to:
  - a) Detect workplace hazards
  - b) Enhance employee motivation
  - c) Reduce absenteeism
  - d) Lower product cost
2. Identify a primary tool used in safety survey.
  - a) Payroll records
  - b) Questionnaires and checklists
  - c) Production scheduling charts
  - d) Cost-benefit analysis reports
3. A systematic safety survey usually involves:
  - a) Regular workplace observations
  - b) Emergency medical response
  - c) New product evaluation
  - d) Annual financial audit
4. A supervisor notices repeated minor injuries on a production line. Which method should be applied to prevent further incidents?
  - a) Conduct safety inspection
  - b) Hold a monthly meeting
  - c) Assign extra shifts
  - d) Introduce incentives

5. Which of the following is a safety training program type?
  - a) Performance review
  - b) Inventory audit
  - c) Seminar
  - d) Advertisement
6. Which is a motivational technique for promoting safe work?
  - a) Safety incentive schemes
  - b) Monitoring email use
  - c) Adjusting office lighting
  - d) Calculating monthly profits
7. The identification of training needs often begins with:
  - a) Surveying market trends
  - b) Analysing current skills and gaps
  - c) Redesigning workflows
  - d) Publishing annual reports
8. A factory wants to identify specific safety training needs. What should be applied?
  - a) Display safety charts
  - b) Announce new safety rules
  - c) Schedule monthly parties
  - d) Analyze past incidents
9. What is a basic principle of accident prevention?
  - a) Expanding overtime
  - b) Increasing inventory
  - c) Hazard identification
  - d) Delay in action
10. Accident investigation and analysis primarily focus on
  - a) Planning holidays
  - b) Increasing product varieties
  - c) Registering trademarks
  - d) Preventing future accidents
11. To ensure audit effectiveness, which approach should be applied?
  - a) Follow a systematic audit methodology
  - b) Conduct informal visits
  - c) Ask only management for input
  - d) Focus solely on compliance posters

12. State when an accident must be reported to authorities.
  - a) When shift timings are changed
  - b) When menu plans are finalized
  - c) When statutory rules require it
  - d) When a new circular is issued
13. The pH range of potable water should be
  - a) 4.0 – 5.0
  - b) 6.5 – 8.5
  - c) 5.5 – 6.0
  - d) 8.5 – 10.0
14. What is the purpose of water sampling?
  - a) Increase dissolved oxygen artificially
  - b) Improve color of stored water
  - c) Reduce temperature of raw water
  - d) Obtain representative water quality data
15. Excess nitrates in drinking water cause
  - a) Fluorosis
  - b) Kidney stones
  - c) Skin cancer
  - d) Blue baby syndrome
16. How should contaminated water be treated in industry?
  - a) Mixing it with untreated water directly
  - b) Filtering and aerating it before discharge
  - c) Allowing it to evaporate naturally
  - d) Storing it without processing
17. Flue gas desulphurization in thermal power plants helps in
  - a) Capture of nitrogen gas
  - b) Separation of ash from coal
  - c) Removal of sulphur dioxide
  - d) Reducing oxygen content
18. Which petroleum product is widely used as a transportation fuel?
  - a) Lubricating wax
  - b) Bitumen
  - c) Diesel
  - d) Furnace coke

19. Tamil nadu safety officer rules were framed in the year  
a) 2000  
b) 1995  
c) 2010  
d) 2005
20. Which method should a cement plant adopt to reduce dust emissions?  
a) Use electrostatic precipitators or bag filters  
b) Increase chimney height alone  
c) Spray water continuously on chimneys  
d) Remove soot manually once per week

### **PART – B**

21. What is meant by the 'Safety movement'?
22. Suggest safety precautions for handling machine operations.
23. Name any two methods used for safety training.
24. State the importance of safety posters and safety displays.
25. List the methodology of conducting a safety audit.
26. What is meant by accident investigation and analysis?
27. What are water pollutants?
28. Write any two safety provisions under the Tamil Nadu safety officer rules.

### **PART – C**

29. Explain the steps involved in job safety analysis with examples.
30. Discuss the strategies for creating safety awareness among employees and evaluate how such strategies contribute to accident prevention.
31. Prepare a safety audit report for a hypothetical small-scale factory.
32. Discuss the process of water treatment in detail.
33. Explain the important provisions under the Tamil Nadu Factories Rules, 1950 relating to Safety and Health.

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