



## ST. ANNE'S COLLEGE OF ENGINEERING AND TECHNOLOG

(Accredited by NAAC, Approved by AICTE, New Delhi. Affiliated to Anna University, Chennai)

ANGUCHETTYPALAYAM, PANRUTI – 607 106.

### CME 387 INDUSTRIAL SAFETY

#### Question Bank

#### UNIT I

#### PART A

1. What is meant by risk?
2. What is meant by hazard?
3. What is meant by Industrial Hazard?
4. What is meant by Industrial safety?
5. Why safety is required Industry?
6. What are the benefits of Industrial safety?
7. What are the various measures to ensure Industrial Safety?
8. What is the difference between hazard, danger and risk?
9. What is meant by risk assessment?
10. Define accident.
11. What is meant by industrial accident?
12. What are the causes for Industrial accidents?
13. What are the objectives of industrial safety?
14. Identify and state the 4 E's of safety. [Nov/Dec 2022]
15. What are the personnel characteristics that are associated with causing Industrial accident?
16. How the accidents are measured in an industry?
17. What is meant by fire?
18. What are the essentials of fire?
19. Draw the fire triangle.
20. What are the safety facilities required in an industry?
21. What are the different sources of fuel?
22. Classify the different classes of fire.
23. What is meant by fire prevention?
24. What is meant by fire safety?
25. What are the conditions to not to fight with fire? List out the industrial fire fighting system.
26. What are the different types of hazards?
27. What is the procedure for Hazard analysis?
28. Define safety.
29. How to identify and analyze hazard?
30. How to control hazard?

31. What are the various physical hazards?
32. What are chemical hazards?
33. What are bio-hazards?
- 34.
35. What are ergonomic hazards?
36. What are mechanical hazards?
37. Categorize the common mechanical hazards. [Nov/Dec 2022]
38. How to safeguard from mechanical hazards?
39. What is a pressure vessel?
- 40.
41. Classify the types of pressure vessels.
42. What are the operating requirements for a pressure vessel?
43. Define electric hazard.
44. List out the various electrical injuries.
45. What are the common electrical hazards?
46. What is meant by burn?
47. What is meant by a electric shock?
48. When an electric fire occurs?
49. How to reduce electrical hazards?
50. Define incident rate. (Nov/Dec 2020)
51. What is safety color code?

#### **PART B & C**

52. Explain the malfunctions in traditional safety management?
53. What are the significances of Industrial safety?
54. What are the objectives and aims of Industrial safety?
55. What are the various measures to be adopted for fire prevention?
56. Explain the various causes for Industrial accidents.
57. Explain the factors contributing to industrial fire.
58. Explain in detail about the steps and benefits of implementing fire safety plan.
59. Explain in detail about various types of fire extinguishers.
60. Explain in detail about fire prevention.
61. Explain in detail about fire protection and safe work practices.
62. What is fire triangle? Explain the different components. Also summarize OSHA fire standards for Fire Protection and Fire Prevention. [Nov/Dec 2022]
63. Explain in detail about Mechanical hazards.
64. Explain in detail about Electrical exposure.
65. What is the safe procedure for the use of electrical equipment?
66. What are the major causes of electrical fire?
67. Explain in detail about various mechanical injuries.
68. Formulate the methods for the reduction of electrical hazards. (Nov/Dec 2020)
69. Explain the Health provisions and safety provisions for workers in Factory Act 1948.
70. List all the provisions made to provide the safe working environment in the factories as per the Factories Act, 1948 and explain any four in detail [Nov/Dec 2022]

#### **UNIT II**

#### **PART A**

1. Define maintenance.
2. What are the types of maintenance?

3. What are the benefits of maintenance?
4. What is Reliability in maintenance?
5. Define maintenance planning.
6. Objectives of maintenance planning.
7. What are the functions of maintenance?
8. Benefits Of Preventive Maintenance.
9. What Is Maintenance Cost?
10. What Is Equipment Lifecycle?

### **PART B & C**

11. Write down the importance and benefits sound maintenance management system. (Apr-08, Nov-09)
12. Explain about the Reliability in maintenance in detail. (April/May '19)
13. Explain briefly about the Principles of maintenance and maintenance planning objectives? (Or)
14. What are the objective and principles of planned maintenance activity? (April-10, 11, 12, 14, 15, Nov-09, 15, 18)
15. Explain the maintenance functions and Maintenance department?
16. What are the different Types of Maintenance? Condition-Based Maintenance
17. What are the types and applications of tools for maintenance?
18. Write an Essay about Replacement and Maintenance analysis.
19. What is the Equipment Lifecycle?

### **UNIT III**

#### **PART A**

1. What is meant by wear?
2. What are the Classification of Wear?
3. List the micro- level action followed in abrasive wear modes
4. What is meant by adhesive wear
5. List the factors decreasing adhesive wear
6. What is meant by corrosive wear
7. What are the main Causes of Wear?
8. List the methods for reduction of wear
9. List the factors influencing the wear
10. What is meant by Lubrication and its roles
11. List the various types of conventional lubrication methods.
12. List the various types of automated lubrication methods.
13. List the various classification of lubricants
14. What are the advantages of automated lubrication over conventional lubrication?
15. List out the properties and testing methods of lubricants
16. What are the purposes of grease lubrication?
17. List out the components of pressure lubrication system.
18. What is meant by splash lubrication system?
19. What are the major causes of the corrosion?
20. What are the external factors that causes corrosion?
21. List the types of corrosion.

. 22. What are the methods to prevent corrosion?

### PART B & C

1. What is wear? Explain in detail about wear.
2. What Are the Classification of Wear
2. What are the Causes of Wear?
3. What are the Wear Reduction Methods?
4. What Is Lubrication? Explain In Detail About Lubrication.
5. What Are The Methods Of Lubrication?
7. Explain In Detail About Corrosion.
8. What are the Factors Affecting Corrosion?
9. What are the Types of Corrosion?
10. What are The Prevention Methods of Corrosion?

### UNIT IV

#### PART A

1. What is meant by fault tracing?
2. What are the importance of fault tracing?
3. What is meant by a decision tree?
4. What are the applications of decision tree?
5. What are the types of machine tool faults?
6. What is the fault finding sequence.

#### PART B & C

1. Explain in detail about the fault tracing analysis and its importance.
2. What is meant by decision tree and explain the steps involved in it with suitable sketch.
3. Explain the sequence involved in fault finding activities with suitable flow chart.
4. Construct the decision tree for problem identification in any one of the machine tool.
5. Construct the decision tree for fault tracing in pump.
6. Construct the decision tree for fault tracing in air compressor.
7. Draw the decision tree for fault tracing in internal combustion engine.
8. Construct the decision tree to identify fault in a boiler and electric motor.
9. List out the types of fault associated with machine tools.

### UNIT V

#### PART A

1. Define periodic maintenance
2. What is the need for periodic maintenance
3. What is degreasing.
4. What is overhauling in machine.

5. What are the benefits of overhauling
6. What are the common troubles in electric motor?
7. What is meant by preventive maintenance?
8. Write any 4 daily checks of pumps
9. What is meant by repair cycle

PART B & C

1. Explain in detail about concept, needs and repairing schemes of periodic maintenance.
2. Explain in detail about any one of the mechanical components.
3. Explain the concept of preventive maintenance and its advantages.
4. Explain the steps and procedure for periodic & preventive maintenance of machine tool, pump, air compressor and diesel generator.
5. Explain the programming and scheduling concept of preventive maintenance.
6. Explain about the concept of repair cycle.