

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Winter 2023 - 24 Examination

Semester: 7
Subject Code: 203109438
Subject Name: Industrial Safety and Maintenance Engineering

Date: 27-10-2023
Time: 10:30am to 01:00pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions (All are compulsory) (15)

1. Lubrication of the Machines covered in which type of Maintenance
(a) Preventive (b) Breakdown (c) Production (d) Modular
2. Which is the first and important step to ensure the safety in planning building & operating plants.
(a) Process Design (b) Safety of Plant (c) Product Design (d) Risk Analysis
3. Gantt charts are used for _____
(a) Forecasting sales (b) Production schedule (c) Scheduling and routing (d) Planning
4. In which type of maintenance, the attention is given to the machine when it stops functioning.
(a) Preventive (b) Breakdown (c) Production (d) Modular
5. The down time cost consists of
(a) Loss of production (b) Wages paid to the workers (c) Reduction in sales (d) All of the above
6. Define Maintenance.
7. Define "Accident"?
8. Write the name of any two Mechanical Hazards.
9. Write any two functions of threaded assembly.
10. Define "Active safety measure".
11. Write the Name of Any two Screw Head
12. Define Corrosion.
13. Write the full form of HAZOP?
14. A stud is a bolt _____ head. (Without/With)
15. Safety is a Basic human need. True or False?

Q.2 Answer the following questions. (Attempt any three) (15)

- A) Explain CPM (critical path method) for scheduling maintenance work?
- B) Explaining detail about Passive safety measure.
- C) Explain Corrective and Breakdown maintenance.
- D) Explain Process design.

Q.3 A) Discuss factors to be considered for Accident Preventions. (07)

- B) What are the objective of maintenance? (08)**

OR

- B) Explain the procedure of ensuring safety in planning. (08)**

Q.4 A) Describe FMEA (Failure mode & Effect analysis). (07)

OR

- A) Discuss about the method of assembly and fitting with respect to different equipment. (07)**

- B) How can you schedule the maintenance? (08)**