Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 80995

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2025.

Fifth/Sixth/Seventh/Eighth Semester

Mechanical Engineering

CME 388 — INDUSTRIAL SAFETY

(Common to : Mechanical Engineering (Sandwich))

(Regulations 2021)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. How will you differentiate Mechanical and Electrical Hazard?

2. Mention the various firefighting equipments.

3. When do we use Maintenance engineering?

4. How will you compute the service life of equipment?

5. What are the effects of wear?

6. How will you define gravity lubrication?

7. State the significant of Fault tracing.

8. When do we use decision trees?

9. What is the need for periodic inspection?

10. Define Repair Cycle.

PART B — (5 × 13 = 65 marks)

11. (a) Discuss the causes, types, results and control for accidents in boiler industries.

Or

(b) Explain in detail the salient points of factories act 1948.

12. (a) Describe the primary and secondary functions of maintenance department and responsibility of maintenance department.

Or

(b) Explain the types, applications and tools used for maintenance.

13. (a) Discuss the implementation of wear reduction methods and lubricants applications.

Or

(b) Describe any four lubrication methods in detail.

14. (a) Show the details of decision tree, draw decision tree for problems in machine tools and applications of decision tree.

Or

(b) Discuss the various types of faults in machine tools and their general causes.

15. (a) Explain the functions of overhauling of mechanical components in a electrical motor and common troubles and remedies of electric motor.

Or

(b) Write short notes on the following

(i) Advantages of preventive maintenance (5)

(ii) Steps for periodic and preventive maintenance of air compressor (8)

PART C — (1 × 15 = 15 marks)

16. (a) Assume you are appointed as a safety engineer in Port trust, how will you implement the safety practices in operating pumps and Diesel generating (DG) sets.

Or

(b) Elaborate the implementation of Design of safety of firefighting equipment and electrical equipment.