

**B.TECH. DEGREE EXAMINATION, MAY 2015****Seventh Semester**

Branch : Mechanical Engineering / Production Engineering

ME 010 706 L01 / PE 010 706 L05 – PLANT ENGINEERING AND MAINTENANCE
(Elective II) [ME, PE]

(New Scheme – 2010 Admission onwards)

[Improvement/Supplementary]

Time : Three Hours

Maximum : 100 Marks

Part A*Answer all questions.**Each question carries 3 marks.*

1. Define breakdown maintenance. Explain its applicability.
2. What is sliding wear test?
3. State the various reasons for emphasis on maintainability during design.
4. Explain SOAP.
5. Write a note on safety analysis techniques.

(5 × 3 = 15 marks)

Part B*Answer all questions.**Each question carries 5 marks.*

6. Explain preventive maintenance with its advantages and disadvantages.
7. Explain the wear of ceramics and polymers.
8. Explain the causes of deterioration and obsolescence.
9. Explain RAM.
10. Write short notes on energy conservation.

(5 × 5 = 25 marks)

Turn over

**Part C**

Answer **all** questions.

Each question carries 12 marks.

11. Explain the different types of maintenance. (12 marks)

Or

12. Explain about the various techniques adopted in scheduling with suitable example. (12 marks)

13. Explain about unlubricated wear of metals. (12 marks)

Or

14. (a) Write notes on Plastic dominated wear.
(b) Write notes on Oxidative wear. (6 + 6 = 12 marks)

15. (a) Explain Maintainability.
(b) Explain Availability. (6 + 6 = 12 marks)

Or

16. Explain MAPI method. (12 marks)

17. Explain in detail about the various NDT methods used in industry. (12 marks)

Or

18. Define Tero-technology. Explain its influence on plant engineering and maintenance. (12 marks)

19. Explain the reasons behind industrial accidents and brief accident prevention programs. (12 marks)

Or

20. (a) Write notes on Pollution control.
(b) Write notes on Waste disposal. (6 + 6 = 12 marks)

[5 × 12 = 60 marks]