

G 1389

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Reg. No.....

Name.....

**B.TECH. DEGREE EXAMINATION, MAY 2016****Seventh Semester**

Branch : Mechanical Engineering

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

(New Scheme—2010 Admission onwards)

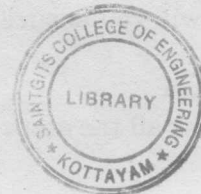
[Improvement/Supplementary]

Time : Three Hours

Maximum : 100 Marks

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

1. List the different types of maintenance.
2. Define Plasticity dominated wear.
3. Discuss the effects of obsolescence.
4. What are the applications of Terro-technology ?
5. List the techniques of waste disposal.



(5 × 3 = 15 marks)

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

6. Discuss the recent developments for failure analysis.
7. What is lubricated wear ? Explain.
8. How will you define reliability ?
9. With a neat sketch, explain a IR camera.
10. List the recent applications of energy audit.

(5 × 5 = 25 marks)

**Part C***Answer all questions.**Each question carries 12 marks.*

11. Discuss the techniques for planning and controlling of maintenance.

Or

Turn over

12. With neat sketches, explain any *five* plant facilities.
13. Explain the elements of wear regime map for metals.

*Or*

14. Discuss the characteristics of fretting wear of metals.
15. How will you quantify failure distribution ? Explain the steps in parameter evaluation.

*Or*

16. Classify the modeling methods for reliability studies. Discuss the applications of stochastic models.
17. Discuss the diagnostic evaluation methods for condition based maintenance.

*Or*

18. Explain the techniques for reliability centred maintenance. Discuss its Mathematics.
19. How will you ensure safety against chemical hazards ? Explain.

*Or*

20. Discuss all the steps in management of waste. Explain all the energy aspects in this process.

(5 × 12 = 60 marks)

