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Question Paper Code: 31785

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Elective

Mechanical Engineering

01UME917 - MAINTENANCE ENGINEERING

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define reliability.
2. Define machine availability.
3. Define preventive maintenance. What is the reason it is to be adapted in the present times?
4. What is meant by maintenance schedule?
5. Name any four instruments commonly used for condition monitoring methods.
6. Differentiate on load testing and off load testing.
7. What is meant by sequential fault location?
8. Differentiate between fault tree diagrams and reliability block diagrams.
9. State the various phases present in a good maintenance management system.
10. Give the name of automobile used for material handling in industry.

PART - B (5 x 16 = 80 Marks)

11. (a) What do you mean by maintenance job planning? Discuss various steps of maintenance job planning. (16)

Or

(b) Explain MTBS, MTBF, MTTF, MTTR and failure rate. (16)

12. (a) What are all the steps involved in preventive maintenance why preventive maintenance is better than reactive maintenance. (16)

Or

(b) What are the functions of lubrication? and gives the tips on lubrication. (16)

13. (a) What is leakage monitoring? Explain some of the leakage mediums used for condition monitoring. (16)

Or

(b) Briefly explain the cost comparison with and without condition monitoring. (16)

14. (a) Briefly explain the procedure for the repair cycle of gears and lead screw. (16)

Or

(b) Explain the logical fault location methods. (16)

15. (a) Explain the repair methods for crane and hydraulic lift. (16)

Or

(b) Explain about the job order system. (16)