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Reg. No. :

Question Paper Code : 91621

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2014.

Eighth Semester

Mechanical Engineering

ME 2037/ME 803/10122 MEE 45 — MAINTENANCE ENGINEERING

(Common to Production Engineering)

(Regulation 2008/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is Mean Failure Rate?
2. Define Maintenance Action Rate.
3. What is meant by Breakdown maintenance approach?
4. Define Corrective maintenance approach.
5. List down the key features of condition monitoring.
6. Name the types of pyrometers.
7. Define Fault tree diagrams.
8. Define Event Tree Analysis (ETA).
9. State few examples of material handling equipments.
10. Define work order systems.

PART B — (5 × 16 = 80 marks)

11. (a) What is equipment availability and what are the three basic approaches to define and quantity availability.

Or

- (b) Explain briefly different types and classes of maintenance cost.

12. (a) Distinguish between fixed time maintenance and condition based maintenance. Give the merits and demerits.

Or

- (b) Explain the repair cycle of metallic materials.
13. (a) What is leakage monitoring? Explain some of the leakage mediums used for condition monitoring.

Or

- (b) Briefly explain various methods and instruments for condition monitoring.
14. (a) Briefly explain the procedure for the repair cycle of gears and lead screw.

Or

- (b) Explain the logical fault location methods.
15. (a) Explain various hydraulic and pneumatic equipment used in material handling purpose. How to maintain it.

Or

- (b) Explain the maintenance procedure for various small equipment for Material handling purpose like chain block, chain, rope, trolley and R.G.B.
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