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

Question Paper Code: 42913

M.E. DEGREE EXAMINATION, NOVEMBER 2015

Elective

CAD / CAM

14PCD517- MAINTENANCE ENGINEERING AND MANAGEMENT

(Regulation 2014)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. Which one of the following is not the objective of maintenance?
   (a) To meet the availability requirements for critical equipments
   (b) To ensure the availability of machines
   (c) To achieve minimum breakdown
   (d) To keep the maintenance cost as high as possible
2. Choose the appropriate advantage of condition based maintenance
   (a) Decreased machine availability (b) Reduction in total downtime
   (c) Increased number of accidents (d) Reduced product quality
3. Which one of the following factor is considered while selecting an activity in maintenance planning?
   (a) Frequency of failures (b) Causes of failures
   (c) Cost of failures (d) All of the above
4. FMECA stands for
   (a) Failure mode and effect analysis
   (b) Failure mode effect and criticality analysis
   (c) Failure mean effect and criticality analysis
   (d) Failure mode effect and creativity analysis

5. Which one of the following S represents Arranging in 5S concept?

(a) SEIRI (b) SEITON (c) SEISO (d) SEIKETSU

PART - B (5 x 3 = 15 Marks)

6. Define maintenance.

7. What do you mean by condition monitoring in maintenance?

8. Define lead time in spares planning.

9. Write down the five zeros involved in maintenance quality.

10. Differentiate chronic and sporadic losses in TPM.

PART - C (5 x 16 = 80 Marks)

11. (a) Discuss in detail about the functions of maintenance department. (16)

Or

(b) Discuss the concept of Tero technology in maintenance. (16)

12. (a) Discuss in detail the types of preventive maintenance. (16)

Or

(b) (i) Explain the types of decision models. (8)

(ii) Discuss the replacement models in detail. (8)

13. (a) Explain the activities involved in maintenance planning. (16)

Or

(b) Explain the concept of spares planning in detail. (16)

14. (a) Analyze the concept of design for maintainability in detail. (16)

Or

(b) Analyze the various stages in FMECA to achieve quality in maintenance. (16)

15. (a) Explain about the pillars of Total Productive Maintenance. (16)

Or

(b) Explain in detail about the six losses in TPM. (16)

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