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10AU844

Eighth Semester B.E. Degree Examination, June/July 2016
Maintenance Engineering

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting
at least TWO questions from each part.**

PART – A

- 1 a. What is maintenance? Explain different types of maintenance. (10 Marks)
b. What are the objectives of maintenance? (05 Marks)
c. Differentiate between predictive and preventive maintenance. (05 Marks)
- 2 a. Explain repair cycle and repair complexity. (10 Marks)
b. Average number of break down per month is equal to 3 in only one inspection. Mean time to perform a repair is 24 hrs. Mean time to perform an inspection is 8 hrs. The value of output per uninterrupted time equals to Rs.3 lakhs. Cost of repair per uninterrupted time is equal to Rs.3000 cost of inspection per uninterrupted is Rs.1250. Determine the optimal number of inspection/months in order to maximize the profit. Assuming that the breakdown rates varies inversely with number of inspection. (10 Marks)
- 3 a. Explain the various types of failures that occur in machinery. (05 Marks)
b. Write about performance evaluation. (05 Marks)
c. Write about maintenance procedure for complete overhaul of shaper/planer. (10 Marks)
- 4 a. Write about estimation of maintenance work. (06 Marks)
b. Write detailed note on long range and short range planning. (04 Marks)
c. Write brief about maintenance scheduling. (10 Marks)

PART – B

- 5 a. Explain how computers can be effectively used in maintenance management. (10 Marks)
b. Write about features and benefits of computers in maintenance management system. (10 Marks)
- 6 a. Define industrial safety. Explain different types of safety organization. (05 Marks)
b. Write about accident investigation. (05 Marks)
c. Write about safety standards for mechanical equipment. (10 Marks)
- 7 Write short notes on:
 - a. Safety standards for material handling equipment
 - b. Plant housekeeping building
 - c. Safety standards for chemical hazards
 - d. Safety standards for electrical equipments and systems
 - e. Safety standards for exhaust system
(20 Marks)
- 8 a. Write a note on noise control technique. (06 Marks)
b. Write a note on vibration control technique. (06 Marks)
c. With neat sketch, explain packed type scrubber. (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.