

Roll No

MMTP - 205

M.E./M.Tech. II Semester

Examination, June 2016

Maintenance of Thermal Power Plant

Time : Three Hours

Maximum Marks :70

- Note :** i) Attempt any five questions.
ii) All questions carry equal marks.
iii) Assume suitable data or dimensions, if necessary, clearly mentioned it.

1. a) Explain the engineering and management aspects of maintenance.
b) Describe how stores management can help in keeping a better spare parts inventory.
2. a) What do you mean by condition monitoring? What are their objectives?
b) What is vibration analysis? How it is used for equipment health monitoring?
3. a) Explain elasto-hydrodynamic lubrication theory and write its applications.
b) What is lubricant monitoring? Why and where this analysis is used more effectively?
4. a) What is Failure Analysis, name the various techniques of failure analysis and explain briefly any one of them.
b) What do you mean by machine failure? Explain with suitable example.

MMTP-205

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5. a) What are the inputs of a systematic selection process for the selection of a maintenance system best suited for Power plants?
b) Write different types of turbine blades, failure and its prevention.
6. a) What is the importance of shutdown maintenance in a thermal power plant? Why unscheduled shutdowns cannot be permitted in them?
b) List different leak detection methods in the condensers and write its prevention.
7. a) Draw a layout of maintenance department for a thermal power plant.
b) List different components of thermal power plants and write probable causes of failure of components.
8. Write short notes on the following (Any Two):
 - a) On-line, off-line condition monitoring techniques.
 - b) Environmental effects on lubrications
 - c) Fault-tree failure analysis
 - d) Maintenance schedule of cooling tower
