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Roll No .....

**MMTP - 205**  
**M.E./M.Tech. II Semester**  
 Examination, December 2014  
**Maintenance of Thermal Power Plant**  
*Time : Three Hours*

*Maximum Marks :70*

*Note :* i) Attempt any five questions.  
 ii) All questions carry equal marks.

1. a) Draw an organization structure of maintenance department of an engineering college having capacity of 5000 students.  
 b) How inventory control is done in any maintenance department? Explain its techniques.
2. a) State about warning systems used in maintenance department.  
 b) Classify the maintenance techniques and state their comparison advantages and disadvantages.
3. a) Explain the working principle of Non-destructive technique. State its industrial applications.  
 b) Explain techniques of condition monitoring in any organization.
4. a) Discuss the classification of on-line techniques of diagnostic maintenance. Discuss any one technique.

- b) Define the following terms: (any two)
  - i) Signature analysis.
  - ii) Wear analysis.
  - iii) Thermography.

5. a) Discuss types of lubricants and their comparative properties.  
 b) Explain the theories of elasto-hydrodynamic and boundary lubrications.
6. a) Write about non- conventional lubricants and their applications.  
 b) Discuss various reasons and types of failures in bearings.
7. a) State and brief common causes of failure in metals and alloys.  
 b) Explain predictive and preventive maintenance of steam turbine and its components.
8. Write short notes on any two of the following:
  - i) Classification of cooling towers.
  - ii) Lubrication of bearings.
  - iii) On-load and Off-load cleaning of condenser tubes.

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