

Roll No

MMTP - 205

M.E./M.Tech. II Semester

Examination, December 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) Draw neat diagrams wherever required.

1. a) Discuss the organisation structure of maintenance department.
b) Define inventory. Explain the purchase procedure in maintenance department.
2. a) Explain the role of warning systems. State various types of warning systems.
b) What do you understand by human considerations in maintenance management? Why it has importance?
3. a) Discuss online diagnostic maintenance techniques especially in case of instrumentation.
b) Compare predictive and preventive maintenance.
4. a) What is condition monitoring? Discuss various techniques of condition monitoring.
b) What is thermography? Also define noise signature.

5. a) Discuss modes of lubrication in different bearings.
b) Discuss non-conventional lubricants with properties and compare with conventional lubrication.
6. a) Compare film lubrication and boundary lubrication theories.
b) State the importance of failure analysis in maintenance. State common causes of failures in metals and alloys.
7. a) Discuss failure due to faulty heat treatment.
b) State the methods of leak detection in condensers. Discuss on-load and off-load cleaning of condensers tubes.
8. Write short notes on the following (any two) :
 - a) Failure of bearings and gears
 - b) Erosion of steam turbine blades and its prevention
 - c) Lubrication of bearings
 - d) Cooling towers
