

THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF ENGINEERING TECHNOLOGY
DIPLOMA IN TECHNOLOGY – LEVEL 4
FINAL EXAMINATION 2006/2007



MEX 4234/MED 2205
PLANT MAINTENANCE & WORK SERVICES. – Part B

DATE : 29th MARCH 2007
TIME : 1030 HRS. – 1230 HRS.
DURATION : TWO HOURS

ANSWER ANY FIVE (5) QUESTIONS ONLY. ALL QUESTIONS CARRY EQUAL MARKS.

PART – B

Question 01

- a) Discuss the responsibilities of the Maintenance Department in a large Industrial Organization.
- b) Explain what is meant by the system approach to maintenance.

Question 02

- a) What are the objectives of maintenance?
- b) Discuss the benefits of maintenance.

Question 03

- a) Describe the “types of maintenance” being practiced in present day industrial setups.
- b) Explain what you understand by the terms “maintainability” and “reliability”?
- c) What parameters are used to express maintainability and reliability?

Question 04

- a) Describe the “Condition Monitoring Technique” used in maintenance practice.
- b) List the advantages to be expected from a condition-monitoring programme.
- c) What are the four different levels of condition monitoring?

Question 05

- a) List out the materials used in making a journal bearing and describe their properties.
- b) What are the advantages of rolling bearings compared to journal bearings?

Question 06

- a) Explain the function of cyclone separator using a sketch.
- b) Name the common units used for the removal of air pollutants.

Question 07

- a) Produce the Gantt chart for a product of your choice, starting from the design stage and ending its storage in a finished goods store.
- b) Explain the Product and Process layouts used in facilitate planning, providing clear sketches for each type.

Question 08

- a) Explain the difficulties in welding an alloy steel and precautions to be taken to overcome them.
- b) Name the non-destructive methods of testing the quality of a weld.

Question 09

- a) What are the general requirements of a machine foundation?
- b) Explain the difference between “machine foundations” and “general foundations”.