

INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)

B.TECH. (MARINE ENGINEERING)
Semester – VIII- September 2015 Examination

ENGINE ROOM MANAGEMENT
Subject Code: UG11T1805

Time: 3 Hours

Max Marks: 100

Date: 29.9.2015

Pass Marks: 50

SECTION - A

Compulsory Question

(3 x 10 = 30 marks)

1. a. Briefly state what is the difference between:

1. Breakdown Maintenance,
2. Routine Maintenance,
3. Predictive Maintenance

b. On what basis is a maintenance schedule for an engine determined ?

c. What is “Top Overhaul” and “Major Overhaul” of an engine ?

d. What are the key wearing parts of the following machinery:

- a) air Compressor, b) Centrifugal Purifier, c) Centrifugal Pump.

e. Why must the lube oil in the sump of the main engine be warmed before starting the engine?

f. What is the modern replacement of the ER logbook. Why is such a provision necessary?

g. What is “Critical Period” of a ship while dry-docking? Why so?

h. State five relevant precautions you will take in the engine room during bad weather conditions.

i. What is “Just-in-time” management, and why has it become a necessity in modern day practice?

j. Why is use of biocides in fungus/bacteria infected luboils frowned upon?

SECTION – B

Answer any FIVE questions

(14 x 5 = 70 marks)

2. What precautionary measures will you take while taking Fuel Oil bunkers on board a vessel?
 - a) Why is retention of oil samples on board necessary?
 - b) Why is a sample soon after taking bunkers, sent to a laboratory for analysis?
3. As a responsible engineer on board, what practices will you follow to ensure better inventory control. Describe a standard procedure followed for all machinery.
4. What is the scope of work on a vessel in a drydock ? What safety measures will you ensure to protect ER personnel from mishaps?
5. What are the actions you will follow during watch keeping in the ER in terms of safety of personnel and machinery, and environment considerations ?
6. What are the safety checks in Drydock, to be made in the Engine Room, during : a) Repairs in progress, b) Reflooding.
7. Describe a time schedule for Engineers for watchkeeping duties. Indicate the periods of rest as per IMO-regulations. Under what circumstances can a Master overrule and deviate from the scheduled practice ?
8. What precautionary measures need be taken if, post bunkering, there are disputes in regard to quality and quantity of bunkers received ? what follow up actions will you take ?
9. Give a brief of the tariff composition concerning the Drydocking of a vessel.
