

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

May/June 2017 End Semester Examinations
B. Tech (Marine Engineering – Seventh Semester)

Engine Room Management UG11T 2705/UG11T 1805

Date: 21.06.2017
Time: 3 Hrs

Maximum Marks : 100
Pass Marks : 50

PART – A

10X3=30 Marks

(All questions are compulsory)

1. (a) What are the safety precautions should be taken as a watch keeping Engineer to protect Engine room against damage in rough weather.
- (b) Why is it necessary to send lubricating oil samples from running machinery for analysis ashore periodically?
- (c) List out safety precautions to be taken before commencing hot work in Engine room?
- (d) What are the parts of a diesel engine can be considered as 'Consumable' and Why?
- (e) What are the factors to be considered while planning a fire drill in the Engine room?
- (f) What activities will typically be recorded in the 'Oil Record Book'?
- (g) Why is it inadvisable to produce water by a Fresh Water Generator In or near a port?
- (h) As a watch keeping engineer what will you do if you find that your reliever is under the influence of alcohol?
- (i) What precautions need to be taken before dismantling a fuel oil purifier?
- (j) What instructions will you give to a junior before opening a Cooler for the main Air Compressor?

PART – B

5X14=70 Marks

(Answer any 5 of the following)

2. (a) Describe the procedures to be followed in bunkering operation wherein fuel oil is being received. (7 Marks)
- (b) Describe how you will get the Main Engine and the plant ready for sailing out from a port? (7 Marks)
3. (a) Describe the actions to be taken in case the turbocharger of the Main Engine is damaged and no spares are available for repairs. (7 Marks)
- (b) Describe how the quantity of fuel oil required to be bunkered so as to conduct a safe voyage is to be calculated. (7 Marks)
4. (a) How should a vessel prepare for a dry docking operation that is about six months away? (7 Marks)
- (b) What is the significance of 'Propeller Drop'? Where is it measured? (7 Marks)
5. (a) Describe how you will hand over watch at sea on a cargo ship. (7 Marks)
- (b) Describe how you will take over watch at sea on a cargo ship. (7 Marks)
6. (a) As a watch keeping engineer what actions will you take if you notice that the relief valve on the gear pump used for transferring fuel oil from the storage tank to the fuel oil settling tank is lifting? (7 Marks)
- (b) What actions are to be taken by a seafarer if he notices a fire anywhere on his ship? (7 Marks)
7. (a) What is 'inventory'? Explain why an accurate inventory is crucial to a safe and economical running of a ship. (7 Marks)
- (b) State the advantages and disadvantages of 'Time Based Maintenance' and 'Condition Based Maintenance.' (7 Marks)

8. (a) Describe the reasons for writing, maintaining and signing the Engine Room Log Book? (7 Marks)

(b) Give fourteen important values entered into the Log Book. (7 Marks)
