

# INDIAN MARITIME UNIVERSITY

(A Central University, Government of India)

## END SEMESTER EXAMINATION December 2017

**Programme:** B. Tech (Marine Engineering)

**Semester:** VII

**Subject Name:** Engine Room Management

**Subject Code:** UG11T2705/UG11T1805

**Date:** 13.12.2017

**Maximum Marks:** 100

**Time:** 3HRS

**Pass Marks:** 50

### **PART – A**

Marks:10X3=30

(All questions are compulsory)

1. (a) Describe the inspections you will make in the crankcase of large propulsion engine .
- (b) What is ECA and state it's latest requirement?
- (c) Why do Lube Oil samples need to be sent for analysis?
- (d) What precautions will you take before entering a enclosed space?
- (e) State five relevant precautions you will take in the engine room during bad weather condition.
- (f) Explain emergency steering.
- (g) Explain the significance of Engine room Log book?
- (h) Explain differences between sounding and ullage.
- (i) Make a list of five 'consumable' parts in Air Compressor.
- (j) What are the important parameters to be checked when Main Engine is running.

### **PART – B**

Marks:5X14=70

(Answer any 5 of the following)

2. (a) What are the safety precautions will you take before and during bunkering of residual fuel on a ship . 7
- (b)What steps will you initiate in the event of quality and quantity disputes?  
What are the details entered in the 'Bunker Delivery Note'(BDN)? 7

3. As an engineer on watch, discuss how a vessel can be prepared for sailing 24hours and 2hours prior departure from port. 14
4. (a) Discuss different types of maintenance procedure with their advantages and disadvantages. 7
- (b) Explain 'ABC analysis' and 'J-I-T' inventory control system and their benefits. 7
5. (a) Discuss how a vessel can be prepared for Dry-docking and state safeties you must follow in Dry-dock. 7
- (b) Discuss inspection, repair and maintenance of important areas of a cargo vessel in Dry-dock. 7
6. a) What is the rule of discharge for Engine room bilge and pump room/slop tanks? 7
- b) What action will you take in case of oil spill during bunkering/sludge discharge operation? 7
7. With respect to monitoring of Main engine performance, explain the importance of taking indicator cards with suitable sketches. 14
8. Discuss maintenance schedule for Main air compressor, centrifugal pump and auxiliary engine. 14

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