

INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)
END SEMESTER EXAMINATION - DECEMBER 2018
B. Tech (Marine Engineering)
Semester: VII
ENGINE ROOM MANAGEMENT (UG11T2705)

Date: 05.01.2019

Maximum Marks: 100

Time: 3HRS

Pass Marks: 50

PART – A

(All questions are compulsory)

10 X 3 = 30 Marks

1)

- a) Discuss briefly about allocation of resources in Engine Room.
- b) What inspection and maintenance is carried out on electrical motors on board vessels routinely?
- c) What are the requirements for calculating bunker estimates for a voyage?
- d) What is the use of an engine room log book and who writes it?
- e) What are the requirements for pumping out machinery space bilges for ships of 400 gross tonnage and above outside and inside special areas?
- f) What safety measures are provided for deck hydraulic crane operation?
- g) Write briefly about Electrical Isolation Certificate.
- h) What safety precautions will be required for entering enclosed spaces on board a vessel?
- i) What safety precautions will you take while working on any electrical equipment on board a vessel?
- j) List down various types of packing material used on board.

PART – B

(Answer any five questions)

5 X 14 = 70 Marks

- 2) a) What preparations will be carried out by a duty engineer before leaving port at one hour notice from the bridge? (7 Marks)
- b) The vessel is arriving at a port and a main engine unit overhaul is due. What preparation will engine room team carry out to overhaul the unit? (7 Marks)

- 3) a) What are emergency steering gear requirements with respect to its operation, safety and regular drills? (7 Marks)
- b) Why proper inventory of spare parts is maintained on board and how does it help in requisitioning and procuring spare parts? (7 Marks)
- 4) a) How will a duty engineer identify machinery faulty while taking rounds in engine room? (7 Marks)
- b) What are the responsibilities and duties of a watch keeping engineer in the engine room of a vessel? (7 Marks)
- 5) a) What problems can be encountered and what precautions will be in place while internally transferring fuel oil or other fluids on board? (7 Marks)
- b) What precautions are taken in engine room on a sailing vessel when bad weather is expected and when the vessel is transiting in restricted visibility? (7 Marks)
- 6) a) What pollution prevention methods are used and safety precautions taken on a vessel while taking bunkers? (7 Marks)
- b) What type of examination, testing and maintenance is carried out on lifting appliances and loose gear on a vessel? (7 Marks)
- 7) a) What preparation are carried out with respect to repairs and safety before a vessel is taken into dry-docks? (7 Marks)
- b) List down the requirements as per MARPOL annex – I for pumping out machinery space bilges. What measures are adopted to comply with the same. (7 Marks)
- 8) a) Explain the duties of a watch keeping engineer mentioning under what conditions watches cannot be handed over to incoming watch-keeping engine room staff? (7 Marks)
- b) How will you prepare a maintenance schedule of an auxiliary diesel engine of a sailing vessel? (7 Marks)
