

CBCS SCHEME

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15MR81

Eighth Semester B.E. Degree Examination, July/August 2021 Engine Room Management

Time: 3 hrs.

Max. Marks:80

Note: Answer any FIVE full questions.

- 1 a. Explain in detail the preparation for long sailing after one month port stay. (12 Marks)
b. Explain briefly the preparation required for long sailing after 12 hours port stay. (04 Marks)
- 2 a. Main sea water pump is the biggest pump in the engine room. Draw neatly the main sea water pump (line diagram) system. (08 Marks)
b. Explain the procedures for lowering bilges at sea if engine room bilge is flooded by leaking sea section pipe. Later it was found that the scavenge air temperature and lub oil inlet temperature are going high. Give reasons, and explain what action you would take. (08 Marks)
- 3 With respect to dry docking of a medium size contains ship, explain :
a. Dry docking (04 Marks)
b. Dry docking inspections – list out (08 Marks)
c. Undocking. (04 Marks)
- 4 a. With respect to dry docking of 15 SN old tanker, explain the procedure involved till vessel is taken to dry dock. (08 Marks)
b. What are poker and trammel gauges? Explain briefly how clearances are taken by them. (04 Marks)
c. Explain the terms purging and gas freeing. (04 Marks)
- 5 With respect to main engine one unit scavenge fire, state,
i) Indication ii) causes iii) effect iv) remedy v) prevention (16 Marks)
- 6 with respect to main engine air starting line explosion state :
i) causes ii) effect iii) remedy iv) prevention. (16 Marks)
- 7 a. Explain briefly the various types of main engine liner wears. (06 Marks)
b. Chief engine of a vessel observed that the cross head bearing clearance of one unit excluded the limit. He decided to change–write down the procedure [Assembly of bearing not required] of lowering/removing cross head bearing. (10 Marks)
- 8 a. State two methods of checking the main engine crank shaft alignment. (04 Marks)
b. During main engine crank case inspection it was noticed that the while metal has squeezed out of No6 main bearing what are the procedures to take out bottom shell of the bearing for replacement. (10 Marks)
c. What is running in period and when it is required? (02 Marks)
- 9 a. Define hazardous area on tanker. Explain the categorization of zones on a tanker. (08 Marks)
b. Explain the term intrinsically safe and explosion proof. (04 Marks)
c. Sea water has gone inside windlass motor and insulation is zero, what is the procedure for reviving. (04 Marks)
- 10 a. What is IP rating? Explain. What IP rating is required for i) windlass motor ii) sludge transfer P/P motor below floor plate iii) auxiliary blower of main engine. (06 Marks)
b. What are alarms, trips provided for the problem of MSB(Main Switch Board)? (06 Marks)
c. Explain the maintenance procedure for lead acid batteries safety taken. (04 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8 = 50, will be treated as malpractice.