

# CBCS SCHEME

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15MR81

**Eighth Semester B.E. Degree Examination, Aug./Sept.2020**

## **Engine Room Management**

Time: 3 hrs.

Max. Marks: 80

*Note: i) For Regular Students: Answer any FIVE full questions irrespective of modules.*

*ii) For Arrear Students : Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. Explain the main aspects of engine room watch keeping in relation to sea watch, port watch and unsheltered anchorage watch. (12 Marks)
- b. Two hours notice received for sailing out from port. Explain the procedure for main engine starting. (04 Marks)
- 2 a. Draw the emergency bilge system of engine room of a large size ocean going vessel. What problems faced after its operation? (08 Marks)
- b. Draw the CO<sub>2</sub> system for total flooding of engine room. Give procedure for CO<sub>2</sub> release. (08 Marks)

### Module-2

- 3 a. Explain with the aid of sketch the procedure for, (06 Marks)
- b. Cleaning sea water side of shell and lube type L.O. cooler of a Diesel engine (06 Marks)
- c. Cleaning of plate type fresh water cooler of a diesel engine. (04 Marks)
- 4 a. How Rudder painted internally in the Drydock. (04 Marks)
- 4 Company has informed of dry docking of a Tanker after discharge of Cargo. Explain
- a. Pre drydock operations. (04 Marks)
- b. Works planned in the Drydock. (08 Marks)
- c. Refloating of the tanker in the drydock. (04 Marks)

### Module-3

- 5 a. Explain the oil mist detector of a main engine. (08 Marks)
- b. Explain reasons for crank cage explosion. What actions to be taken in case one main bearing temperature is high. (08 Marks)
- 6 a. Explain main engine air start lining explosion- Reasons, effect and prevention. (08 Marks)
- b. Explain main engine scavenge space fix – Reasons, effect and prevention and action to taken. (08 Marks)

### Module-4

- 7 Give reasons for main engine
- a. Turbocharger surging and immediate action to be taken. (08 Marks)
- b. Not starting on fuel – reasons and action to be taken. (04 Marks)
- c. Not starting on air – reasons and action to be 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.

- 8 With respect to main engine, describe
- a. Crank shaft deflection (08 Marks)
  - b. Resin checking and its advantages (08 Marks)

**Module-5**

- 9 a. Explain the arrangement for Shore power with the help of a circuit diagram. (08 Marks)
- b. Hydropose (Sea water pump) motor's insulation in zero due to sea water entry. What actions to be taken? (08 Marks)
- 10 a. Draw and explain Navigational lights of a vessel. (08 Marks)
- b. What is explosion proof motor on oil tanker? Explain briefly. (04 Marks)
- c. What is IP Rating of motors fitted on ship? Explain briefly. (04 Marks)

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