

# CBCS SCHEME

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15MR833

## Eighth Semester B.E. Degree Examination, Aug./Sept.2020 Marine Engineering Practice

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 procedure for liner overhauling (Removal) of one Unit of Main engine. (08 Marks)  
b. Explain cleaning and calibration of liner, piston and piston rings for Q1(a). (08 Marks)
- 2 a. With aid of neat sketch explain briefly the M.E. scavenging system. (08 Marks)  
b. Show cross head bearing and guide clearances. How those clearances are taken. (04 Marks)  
c. Explain water washing of Turbocharger Turbine during sailing. (04 Marks)

### Module-2

- 3 a. Explain the procedure of cylinder head overhauling for Auxiliary diesel engine. (08 Marks)  
b. How Auxiliary diesel engine air cooler is cleaned? (04 Marks)  
c. Explain the procedure of fuel valve testing. (04 Marks)
- 4 a. Draw the Lubricating oil system of auxiliary diesel engine. (08 Marks)  
b. Explain the importance of prelubrication and how it is done. (04 Marks)  
c. Draw fuel oil leaky system of Auxiliary diesel engine. (04 Marks)

### Module-3

- 5 a. With the help of a neat sketch, explain briefly the operation of 3 stage main air compressor. (08 Marks)  
b. Write down difference between main, service and control air compressors. (04 Marks)  
c. What are the SOLAS and class requirements for main air bottle? (04 Marks)
- 6 a. With the aid of a neat simple sketch explain briefly the operation of self cleaning HFO purifier. (12 Marks)  
b. State different types of purifiers and their operation (Means when they are run). (04 Marks)

### Module-4

- 7 a. Draw muff coupling and state its advantages. (08 Marks)  
b. With the aid of sketch, write down in brief the procedure for hydraulically mounting keyless propeller. (08 Marks)
- 8 a. Draw water cooled stern tube and its sealing arrangements and explain. (10 Marks)  
b. What is jumping clearances? What are the clearances checked in the Drydock (for Rudder, Rudder Strok and Propeller.) (06 Marks)

**Module-5**

- 9 a. With a neat sketch explain briefly the operation of Sewage Treatment Plant. (12 Marks)  
b. What are the MARPOL requirements for sewage? (04 Marks)
- 10 a. Draw 15 PPM oily water separator and explain briefly the operation. (12 Marks)  
b. What is Annex 1 of MARPOL? State Annex 1 requirement for E/R bilges and sludge. (04 Marks)

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