

CBCS SCHEME

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18MR641

Sixth Semester B.E. Degree Examination, June/July 2024 Advanced Marine Technology

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Draw neatly the line diagram of boiler flue gas inert gas plant of a crude oil Tanker and explain the functions of a scrubber, deck seal and P.V valve. (14 Marks)
- b. Describe briefly the difference between ring main, direct line and free flow of cargo pump section. (06 Marks)

OR

- 2 a. With the aid of flammability chart explain :
i) Inerting
ii) Purging
iii) Gas freeing operations on a tanker. (14 Marks)
- b. Draw the inert gas generator provided on a crude oil tanker and explain when it is used. (06 Marks)

Module-2

- 3 a. Draw a simple prismatic tank of a LPG tanker with reliquification system, Explain its operation. (10 Marks)
- b. With the aid of neat sketch explain :
i) Remote cargo level measurement
ii) Sounding
iii) Ullaging. (10 Marks)

OR

- 4 a. Draw compressor room and motor room arrangement on a LPG Tanker. What is Air lock? Explain. (10 Marks)
- b. Differentiate between LPG and crude oil Tanker (give at least 10 differences). (10 Marks)

Module-3

- 5 a. Draw neat sketch of crude oil working system of a crude oil Tanker. Describe how C.O.W is done for a crude oil tank. (14 Marks)
- b. State whether stripping generally done by an educator or stripping pump. Draw the cross sectional view of an educator. (06 Marks)

OR

- 6 Write short notes on :
a. Ship shore check list
b. Heavy weather ballast tank and ODMC
c. Pump room entry precautions
d. Cross sectional view of Deck Seal and its operation. (20 Marks)

Module-4

- 7 a. State classification of hazardous cargo as per IMDG code. (10 Marks)
b. With the aid of neat diagram, explain the water spray system provided on LPG Tanker. (10 Marks)

OR

- 8 Write short notes on :
a. Handling of pump room bilges on a crude oil Tanker
b. Difference between Deep well pump and Framo pump
c. SOPEP and SOPEP locker
d. Automatic unloading system on a crude oil Tanker. (20 Marks)

Module-5

- 9 a. With respect to container ship, state and explain different types of containers used for carrying cargo. (12 Marks)
b. Briefly explain operation of container ships and anti-heeling system provided. (08 Marks)

OR

- 10 Write short notes on :
a. Holding space, ballast space and dry space water detectors on a bulk carrier
b. Change of cargo on a bulk carrier
c. Refrigeration system on banana carriers
d. RORO vessels loading, ventilation and fire fighting system for vehicle deck. (20 Marks)

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