

CBCS SCHEME

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17MR35

Third Semester B.E. Degree Examination, Dec.2018/Jan.2019 Elementary Navigation, Seamanship and Survival at Sea

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Briefly explain the designation, job and duties of the officers and ratings working in the engine room of a merchant vessel. (15 Marks)
- b. Define the following : (05 Marks)
- (i) Beam (ii) Port Side (iii) Rudder (iv) Superstructure (v) Bulbus bow.

OR

- 2 a. What are the SOLAS requirements for the following life saving appliances: (14 Marks)
- (i) Lifebuoys (ii) Life jacket
- b. Explain the following : (06 Marks)
- (i) Hypothermia (ii) Frostbite

Module-2

- 3 a. What are the precautions to be taken while handling synthetic man made ropes? (14 Marks)
- b. What are the different types of anchors used on board ship? Explain each one briefly. (06 Marks)

OR

- 4 a. What are the duties of an officer on watch at anchorage? Also give the general precautions to be taken at anchor watch. (14 Marks)
- b. Write down the instructions to wear a life jacket. (06 Marks)

Module-3

- 5 a. Explain the Beaufort wind scale. (14 Marks)
- b. What are the 5 options available to a vessel running into heavy weather? (06 Marks)

OR

- 6 a. Write down the precautions to be taken on a vessel in case of heavy weather for (i) Stability (ii) Navigation (iii) Deck. (16 Marks)
- b. Write a brief note about abnormal waves at sea. (04 Marks)

Module-4

- 7 a. Explain the procedure for launching a gravity Davit type lifeboat. (14 Marks)
- b. What are the regulatory requirements for a free fall type of life boat? (06 Marks)

OR

- 8 a. Explain the procedure for launching of a life raft. (16 Marks)
- b. What is an HRU? Why is it needed and how does it work? (04 Marks)

Module-5

- 9 a. What is MARPOL convention? With respect to Marpol explain (i) 6 Annexes (ii) Explain Annex 1, Annex 5 for merchant vessels. (16 Marks)
- b. What is ISPS? Why is it required? (04 Marks)

OR

- 10 a. What are the technical provisions of SOLAS? Briefly explain each. (18 Marks)
- b. What is the importance of the STCW convention? (02 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.