



B. Tech Degree IV Semester Examination in Marine Engineering, November 2008

MRE 406 SEAMANSHIP AND NAVIGATION

Time : 3 Hours

Maximum Marks : 100

(Each question carries 20 marks)

I. Draw a diagram of organizational structure of a vessel and explain briefly the duties of each.

OR

II. Write short notes on:-

- (a) Look out
- (b) Navigational lights
- (c) Cargo Hatches
- (d) Cable stoppers
- (e) Life boat drills

III. What are the uses of anchor? If you use a stern anchor what is the additional use? Explain your answer with justification.

OR

IV. Where are the following knots/splices used

- (a) Reef knot
- (b) Clove hitch
- (c) Carrick Bend
- (d) Over hand knot
- (e) Bow line
- (f) Sheep Shank
- (g) Bowline on the bight
- (h) Sheet bend
- (i) Timber hitch
- (j) Round turn and two half hitches.

V. Answer briefly on the following:-

- (a) What is a position line?
- (b) How many types of compasses are used on board?
- (c) What is the need to use heavenly bodies for navigation? Name the heavenly bodies used.
- (d) Why free fall boats became necessary to be used on board?
- (e) What is the relevance of barometer on board?

OR

VI.

- (a) What is the purpose of Echo Sounder?
- (b) When do we adjust Ship's clocks?
- (c) Do we need GPS in the ship? How does it help us?
- (d) What is the use of Life rafts in addition to Life boats?
- (e) What is the use of radar? How many radars are used on a modern container vessel?

(Turn over)

- VII. (a) What do you understand by Muster list? Where do you see this? Who prepares this?
(b) What do you understand by 'Abandon Ship'? What will you do when you hear this? Who can order this?

OR

- VIII. (a) What do you understand by the term Pyro-techniques? Briefly describe their uses.
(b) Who issues distress calls? What is its relevance?
- IX. (a) What is understood by the term MARPOL? Who makes these rules? Can we discharge plastic overboard in high seas? Justify your answers.
(b) Where do you find your life jackets? Does the vessel carry spare life jackets? If so where? What are the items attached to the life jackets?

OR

- X. Draw a diagram of an inflated life raft with all the associated accessories. Briefly mention the function of each.
