BT-MRE-IV-06-14-0565 Reg.No. | | | | | | | | |

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B.Tech. Degree IV Semester Examination in Marine Engineering June 2014

MRE 407 SHIP TECHNOLOGY

Time : 3 Hours Maximum Marks : 100

(5 x 20 = 100)

I. (a) Mark the following parameters in a ship structure. (10 x 1 = 10)

(i) Length overall (ii) Length between perpendiculars
(iii) Breadth moulded (iv) Breadth extreme
(v) Depth moulded (vi) Draft
(vii) Free board (viii) Camber
(ix) Sheer (x) Rise of floor

(b) Briefly explain : (5 x 2 = 10)

(i) Hogging (ii) Sagging (iii) Racking (iv) Pounding (v) Panting

OR

II. (a) Describe in detail a metal arc welding used in shipyards. (10)

(b) Describe the different tests carried out in welding and explain advantages and disadvantages of each. (10)

III. (a) Describe the double bottom construction of a ship indicating various stiffeners used with a neat sketch. (10)

(b) Describe structural members used in deck structure with figure. (10)

OR

IV. (a) Explain various bulk heads and their requirements in a ship. (10)

(b) Describe the construction of a collision bulk head with a neat sketch. (10)

V. Draw the mid ship section of an oil tanker showing all structural arrangements. (20)

OR

VI. Draw the mid ship section of a bulk carrier showing all structural arrangements. (20)

VII. Describe fore end arrangements of a ship with a neat sketch. (20)

OR

VIII. Describe aft end arrangements of a ship with a neat sketch. (20)

IX. (a) Explain the calculation of tonnage as per 1982 Rules. (10)

(b) Explain how load line markings are made in a ship. (10)

OR

X. (a) Explain in detail layout of a shipyard with activities taking place at different locations. (10)

(b) Briefly explain: (10)

(i) Launching (ii) Sea trial
(iii) Use of computers in ship design (iv) Mould loft.

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