

--	--	--	--	--	--	--	--	--	--

***B.Tech. Degree IV Semester Examination in
Marine Engineering May 2017***

**MRE 1407 SHIP TECHNOLOGY
(2013 Scheme)**

Time: 3 Hours

Maximum Marks: 100

(5 × 20 = 100)

- I. (a) Define LOA, AP, FP, LBP, Bmld, Dmld, Camber, Sheer and Rake of a ship. (10)
Show these on a Ship's Profile and Mid-Ship section.
- (b) What are the different types of sections used in the construction of Ships? (10)
Explain with neat sketches.
- OR**
- II. (a) Define DWT, Light Weight, and Displacement of a ship. (6)
(b) Describe Hogging and Sagging. (6)
(c) Explain various tests carried out in weld joints. (8)
- III. (a) What is the purpose of fitting a bilge keel? Explain the constructional details. (7)
(b) Explain the different types of bulkheads in Ships. (7)
(c) What is cofferdam? Explain its uses. (6)
- OR**
- IV. (a) Explain "Panting" and "Pounding" in Ships. What are the structural (10)
arrangements in ship to resist the Panting and Pounding?
(b) Describe Anchor handling arrangement in the Ship. (10)
- V. Draw the Mid-Ship section of an Oil Tanker showing all structural (20)
arrangements.
- OR**
- VI. Draw the Mid-Ship section of a BULK CARRIER showing all structural (20)
arrangements.
- VII. (a) What are Type-A and Type-B Ships? (5)
(b) Prepare the Plimsoll marking for a Ship having: Summer draft = 12meter, (15)
FWA = 400mms. Explain the method of calculation and indicate dimensions
clearly.
- OR**
- VIII. (a) Define Gross tonnage and Net tonnage. (5)
(b) Write down the formulae as per IMO1969 Convention for computing (7)
GT and NT.
(c) Calculate GT and NT for a Ship having following details: V= 100, 000SQ.M (8)
and VC = 70,000SQ.M, draft = 12m and depth = 16m.
- IX. (a) Explain different types of Offshore structures, Vessels and Operations. (10)
(b) What is Dynamic positioning of Offshore vessels? Briefly explain its (10)
advantages and disadvantages.
- OR**
- X. (a) What are the criteria in choosing location for a Shipbuilding and repairs yard? (5)
(b) Make a sketch of the Layout of a Shipyard and explain the production process (15)
till delivery of a Ship.