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***B.Tech. Degree IV Semester Examination in Marine Engineering  
May 2018***

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

Time: 3 Hours

Maximum Marks: 100

(5 × 20 = 100)

- I. (a) Define the following parameters and indicate them on the transverse section of a ship: (i) Depth moulded (ii) Breadth moulded (iii) Rise of floor (iv) Camber (v) Draft extreme. (10)
- (b) Explain racking. Which strength members are provided to resist racking of a ship? (5)
- (c) List down the common sections used as stiffeners for steel plates. Draw neat sketches of these. (5)
- OR**
- II. (a) Briefly explain the general classification of ships. (10)
- (b) Explain welding and riveting. List down their advantages and disadvantages. (10)
- III. (a) Explain solid floors and bracket floors with the help of neat sketches. (10)
- (b) Make neat sketch of a transverse watertight bulkhead and mark the various parts. (10)
- OR**
- IV. (a) Draw the midship section of a container ship showing the structural arrangement and mark the various parts. (10)
- (b) Explain the various types of framing systems followed for the side shell structure. Draw neat sketches. (10)
- V. Explain the structural arrangement at the forward end of a ship having bulbous bow. Draw neat sketches. (20)
- OR**
- VI. Explain the structural arrangement at the aft end of a ship having transom stern. Draw neat sketches. (20)
- VII. (a) Explain how the freeboard is assigned for a seagoing ship. (15)
- (b) Define gross tonnage and net tonnage of a ship. (5)
- OR**
- VIII. (a) Draw the layout of a shipbuilding yard and indicate the various shops. List down the functions of each of these shops. (14)
- (b) Explain what is meant by the terms 'assembly' and 'subassembly' used in shipbuilding. Give examples for each of these. (6)
- IX. (a) Briefly explain the classification of offshore platforms. (10)
- (b) Briefly explain any two offshore support vessels with the help of neat sketches. (10)
- OR**
- X. Explain the various classification surveys and statutory surveys carried out for a seagoing ship, periodically. (20)