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***B.Tech. Degree IV Semester Regular Examination in
Marine Engineering April 2021***

19-208-0407 SHIP TECHNOLOGY

(2019 Scheme)

(Provide sketches wherever necessary)

Time: 3 Hours

Maximum Marks: 60

(5 × 15 = 75)

- I. (a) With the help of layout explain basic ship particulars used to define a vessel. (8)
(b) List down and explain various stresses acting on ship structure. (7)
- OR**
- II. (a) What are the methods used for inspecting and testing of welded ship structures. (8)
(b) Explain dynamic forces acting on ship while in motion. (7)
- III. (a) Compare single and double bottom construction using suitable sketches. (10)
(b) Draw midship section of a bulk carrier and mark all structural components. (5)
- OR**
- IV. (a) Explain the construction of side and bottom shell plating. (8)
(b) Using suitable sketches explain the significance Duct keel and Bar keel. (7)
- V. As a ship designer explain how fore end of a ship is constructed incorporating necessary panting arrangements. (15)
- OR**
- VI. Compare cruiser and transom stern construction with the aid of sketches. (15)
- VII. (a) Explain how Plimsoll marking is done on ships with relevant regulations. (9)
(b) Explain the following: (6)
(i) Dead weight
(ii) Light ship weight
(iii) Gross and Net tonnage
- OR**
- VIII. With the help of diagram explain shipyard layout and operations carried out. (15)
- IX. (a) With neat sketch explain drill ships construction features. (8)
(b) What are Offshore mobile platforms? Explain types of DP systems adopted in offshore vessels. (7)
- OR**
- X. (a) List down and explain various statutory certificates to be maintained onboard ships and their validity. (7)
(b) Explain how intact and damage stability of a ship is ensured. (8)
