

**INDIAN MARITIME UNIVERSITY**  
(A Central University, Government of India)  
End Semester Examinations- June-July 2019  
**Semester – IV**  
**B.Tech (Marine Engineering)**  
**Ship Structure & Construction**  
**(UG11T1401 / UG11T2401)**

---

Date: 24-06-2019  
Time: 3 Hrs

Maximum Marks: 100  
Pass Marks: 50

---

**SECTION – A**

**(10 X 3 = 30 Marks)**

**Answer ALL Questions**

1. (a) Explain 'Pounding' and 'Panting'  
(b) What is 'Breast Hook'? Where and Why it is used?  
(c) What is 'Hatch Coamings'? How are they fitted and strengthened?  
(d) Define – Sheer and What is the relation between forward Sheer and aft sheer?  
(e) What is Web Frame?  
(f) What is Corrugated Bulkhead?  
(g) What are the advantages of 'Duct keel' over 'Flat Plate Keel'?  
(h) Explain the following i) Free Board ii) Tank Top  
(i) Define- Gross Tonnage and Net Tonnage.  
(j) What is Dynamic Positioning system?

**SECTION – B**

**(5X14 =70 Marks)**

**Answer any FIVE questions from the following**

2. Sketch and describe clearly on Plain and Plated water tight transverse bulkhead (14)
3. Describe the construction of double bottom of a ship. What is transversely and longitudinally framed double bottom? (14)

4. a) Draw a 'Plimsoll Line' and explain its need with respect to safety. (7)
- b) Draw and Explain the construction of Chain Locker. (7)
5. List out Statutory Certificates to be carried on board and Explain each in detail. (14)
6. Write short Notes on the following (3.5X4 = 14)
- a) LNG Vessel
  - b) Load Line Survey
  - c) SOLAS
  - d) Shaft Tunnel
7. a) What is the purpose of Cable Laying Vessel? (4)
- b) Explain briefly on types of 'Offshore Support Vessel' with suitable example. (10)
- 8.
- a) Name various types of Rudder Pintle & its use. (5)
  - b) Explain with a neat sketch the method of support provided for a balanced Rudder in a Cast Steel Frame. (9)