

# INDIAN MARITIME UNIVERSITY

(A Central University, Government of India)

## END SEMESTER EXAMINATION DEC 2017

**Programme:** B.Tech (Marine Engineering)

**Semester:** IV

**Subject Name:** Ship Structure & Construction

**Subject Code:** UG11T2401

**Date:** 23.12.2017

**Maximum Marks:** 100

**Time:** 3HRS.

**Pass Marks:** 50

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### **PART – A**

Marks:10X3=30

(All questions are compulsory)

1. (a) Define Gross tonnage and Net Tonnage.
- (b) Draw the neat sketch of Shaft tunnel.
- (c) What do you mean by Launching of ship and list two types of Launching methods?
- (d) List Non-destructive Testing methods used to detect Faults in weld and discuss which of these are being commonly used.
- (e) Why LOA, Breadth extreme and Drafts are important dimensions?
- (f) Explain any two types of sections used for the construction of stiffeners.
- (g) Explain the use of Panting Stringers.
- (h) With the help of neat sketch, explain use of Bilge keel.
- (i) Explain the meaning of Hogging and Sagging stress.
- (j) Explain the difference between Single and Double Bottom Structure.

### **PART – B**

Marks:5X14=70

(Answer any 5 of the following)

2. Sketch and discuss a Plain or plated watertight transverse bulkhead.
3. Explain different types of periodical surveys to be carried out by the Society surveyors at regular periods.
4. Discuss various stresses experienced by a ship when sailing.

5. Sketch and discuss Plimsoll Line with all Draft markings in it.

6. With the help of neat sketch explain typical members used for aft construction.

7. With the help of neat sketch explain the construction of Chain Locker.

8. With the help of neat sketches explain following principal parameters of ship?

Tumblehome, Bilge Radius, Rise of Floor, Freeboard, Camber and Shear, Flat of Bottom.

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