

INDIAN MARITIME UNIVERSITY
(A Central University Government of India)
END SEMESTER EXAMINATIONS-JUNE/JULY 2019
B.SC NAUTICAL SCIENCE
SEMESTER-III
NAVAL ARCHITECTURE-III
(UG21T2309)

Date: 13-07-2019

Duration: 3 hrs.

Maximum Marks: 70

Pass Marks: 35

Part-A

Attempt any 4 questions. All questions carry equal marks

1. Sketch and explain transverse and longitudinal framing. (10 Marks)
2. Sketch and label double bottom tank. (10 Marks)
3. Sketch and label bilge keel (10 Marks)
4. Draw and label watertight bulkhead. (10 Marks)
5. Draw and label a fore peak tank. (10 Marks)

Part B

Attempt any 3 questions. All questions carry equal marks

- Q6) A ship's water plane is 90m long. Half breadths at equal intervals from forward are: 0.0, 2.5, 4.5, 6.5, 7.5, 8.5, 8, 6 and 0m respectively. find a) SW TPC b) Area coefficient (10 Marks)
- Q7) A ship 100 m long draws 4 m fwd and 5.2 m aft. Hf 2 m abaft amidship, MCTC 160 tm and TPC 15.100 t of cargo is shifted from no: 3 LH to no: 1LH through a horizontal distance of 32m. Find the new drafts fwd and aft. (10 Marks)
- Q8) M.V. 'Hindship' is floating at a draft of F 5.62 m, a 6.78 m, a wt. Of 220 tonnes is then shifted from no.3 TD to a position 112.5 metres ford of AP. Calculate the final drafts F and A. (10 Marks)
- Q9). Trim is the longitudinal shift of centre of gravity. explain with diagram. (10 Marks)
