

INDIAN MARITIME UNIVERSITY
(A Central University Government of India)
END SEMESTER EXAMINATIONS-June-July 2019
Diploma in Nautical Science
Semester -I
CARGO HANDLING, STOWAGE & SEAMANSHIP I
(UD11T2106)

Date:29-06-2019

Time:-2 Hrs

Max.Marks:70

Pass Marks:28

Note: Non programmable scientific calculator is permitted.

Part - A

Question no.1 is compulsory and Answer any *three* from the remaining questions.
All questions carry 10 marks each.

1. A hold 14 m x 10 m x 3 m is to be filled with jute and cotton bales. The jute bales measures 1m x0.5m x 0.6m and weighs 180kgs. And the cotton bales measures 1m x 0.5m x 0.8m. and weight 250kgs. How many bales of jute and cotton would you load if the load density of the deck was 1.86 t/m².(10 Marks)

2. Write Short Notes on: (5 x 2 = 10 Marks)
 - a.Stowage and Securing
 - b.Segregation

3. a) Define Deadweight and measurement cargo and how will the shipowner know when to charge freight on weight and when to charge on volume? (5 Marks)
b) Describe 5 types of personal protective equipment's used on ship as per safety rules. (5 Marks)

4. What factors to be considered while preparing the holds for cargo loading? (10 Marks)

5. a) Explain the Galvanic Corrosion. (5 Marks)
b) What are the components of paints. List the types of paints used on ship. (5 Marks)

Part- B
(Answer any three from this Section)

6. Sketch and label the following parts of an 5 hold bulk carrier: (2x5=10 Marks)
a) Peak Tanks b) wing Tanks c) Rudder
d) Hatch cover e) bulkheads.
7. Sketch the cross sectional view (Transverse) of the ship and define (2x5=10 Marks)
a) Base Line b) Moulded depth c) Extreme beam
d) Draught f) Freeboard .
8. a) Define: Water- plane coefficient and TPC. (5x2=10 Marks)
b) The length and breadth of the water-plane of t a ship are 100m and 12m. if the coefficient of fineness of the water-plane is 0.7, find the TPC in SW and in FW.
9. A vessel is floating at 7.8 m draft in DW of RD 1.010. TPC is 18 and FWA is 250 mm. the maximum permissible draft in SW is 8.0 m. find the DWT available. (10 Marks)
