

INDIAN MARITIME UNIVERSITY
(A Central University Government of India)
END SEMESTER EXAMINATIONS – DECEMBER 2019
Diploma in Nautical Science
Semester I

UD11T1106- Cargo Handling Stowage and Seamanship-I

Date: 14.12.2019

Max. Marks: 70

Time: 2Hrs

Pass Marks: 28

Note:

- 1) Answer 4 questions from PART A with Question no.1 being compulsory
 - 2) Answer 3 questions from PART B with question no 6 being compulsory
 - 3) All questions carry 10 marks
 - 4) Non programmable scientific calculator is permitted
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Part –A

- Q1. A cargo hold measures 20m × 18 m × 12m. (2x5=10 marks)
- a) How many tonnes of cotton having S.F. 2.60 m³/t and broken stowage 8% would fit in it?
 - b) How many tonnes of granite slab can be loaded? S.F: 0.48 m³/t, broken stowage 11.2%
- Q2. Describe the following terms (2x5=10 marks)
- a) Grain Capacity
 - b) Stowage factor
 - c) Deadweight cargo
 - d) Ballasting
 - e) Broken stowage
- Q3. Describe different types of ships and cargo they carry. (10 marks)
- Q4. a) Describe various types of ropes used on board (2x5=10 marks)
- b) Write short notes on care & maintenance of ropes & wires?
- Q5. a) Define PPE. Give examples. (2x5=10 marks)
- b) Describe different types of materials used on board

Part-B

Answer three questions from this section. Question no 6 is compulsory

Q6. A box shaped vessel 100mts long, 14mts wide and 12 mts high. If her displacement is 13776 t find her reserve buoyancy in %.

(10 marks)

Q7. Sketch and label load lines marks.

(10 marks)

Q8. Define following

(5x2=10 marks)

- a) Deadweight
- b) Block Coefficient
- c) TPC
- d) Pressure
- e) Thurst

Q9. Draw a ship diagram and mark the following

(5x2=10 marks)

- a) Bulbous bow
 - b) Double bottom tanks
 - c) Collision bulkhead
 - d) Chain Locker
 - e) AFT Peak Tank
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