

Indian Maritime University
(A Central University, Govt of India)
B Sc (Nautical Science)
July 2018 End Semester Examinations
Semester-III
UG21T3305 - Cargo Handling and Stowage - I

Duration:3 Hrs

Max Marks:70 Marks

Date: 11.07.2018

Pass Marks:35 Marks

Question No. 1 is compulsory.
Answer any 6 questions from remaining 8 questions (each of 10 marks).
Non programmable Scientific Calculator is permitted

1. Define the following

5x2 = 10marks

- a. Stowage factor
- b. Dead weight
- c. Proof load
- d. Displacement
- e. Load density

2. How many tonnes of full load of each commodity will fit in a hold of dimensions 13x10x8.5 and bale capacity 1015m³?

Cargo	Stowage Factor (m ³ / t)	Broken Stowage
a. Bagged Rice	1.63	6.0%
b. Scrap metal	0.67	1.2 %

(10 marks)

- 3 (a) What is contained in the Register of Lifting Appliances and Cargo Handling Gear. (5 Marks)
- (b) What are the contents of the Rigging Plan. (5 Marks)
4. (a) Explain the contents of Cargo securing Manual. (5 Marks)
- (b) List the precautions to be taken while loading Heavy Lift. (5 Marks)
5. What are the duties of Watch keeping officer during cargo operation? (10 Marks)
6. (a) Name the types of hatch covers. (5 Marks)
- (b) Explain the different methods of testing the weathertightness of hatch covers. (5 Marks)
7. Draw the simple sketch of a simple Derrick and mark its parts. (10 Marks)
8. (a) Explain ship's sweat and cargo sweat. (2x5=10 Marks)
- (b) Describe how the cargo ventilation is carried out onboard ship to prevent sweat formation.
9. (a) Differentiate between Natural and synthetic fibre ropes. (2x5=10 Marks)
- (b) Explain briefly the care and maintenance of wire ropes.
