

INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)
December - 2017 End Semester Examination
DNS – First Semester (2015 batches onwards)
Cargo Handling Stowage & Seamanship - I (UD11T3106)

Date: 09.12.2017
Time: 2 Hrs.

Max. Marks: 70
Pass Marks: 35

Note: Answer Question No 1 and any 3 other questions from Section-A
Answer any 2 question from section-B
Answer any one question from section-C
All Question carry equal marks

Part –A Cargo Handling and Stowage

(4x10 = 40 Marks)

1. How many tones of the following commodities will fit in a hold of dimensions 13x10x8.5 and bale capacity 1015m³ ?

Cargo	Stowage factor(m ³ /t)	Broken Stowage
a. Wheat	1.32	Nil
b. Fruit cases	1.98	4.5%
c. Bones in Bulk	2.23	0.8%
d. Bagged Rice	1.63	6.0%
e. Scrap metal	0.67	1.2%

2. Explain briefly the following terms.
a. Deadweight Cargo b. Plimsoll mark c. Bale Capacity d. Grain Capacity
e. Solid bulk Cargo
3. a. How will you go about preparing a cargo hold for grain which had earlier carried iron ore cargo.
b. What are the powers and duties of dock labour Inspector?
4. Write short notes on
a. Cargo Securing Manual.
b. dock labour regulation.
5. a. Explain ship's sweat and cargo sweat.

- b. Describe how the cargo ventilation is carried out onboard ship to prevent sweat formation.

Part – B Seamanship Theory

Answer any 2 questions

2x10 = 20 marks

6. a. Explain the care and maintenance of wire ropes.
b. write in detail the types of ropes used onboard ship.
7. Using a three-fold purchase rigged to disadvantage, to lift a weight of 9.6 tonnes, find :
- i. the tension in the hauling part
 - ii. the efficiency of the system
 - iii. the minimum size of manila rope that can safely be used in the purchase.
8. a. Write Notes on the Corrosion Triangle (How the corrosion occurs on ship?)
b. What are factors affecting Corrosion?

Part – C Safe Working Practices

Answer any one question

1x10 = 10 marks

9. a. Write short notes on Safety committee meetings.
b. write the basic duty of a Safety Officer on a ship.
10. a. What is "Permit to Work" as per COSWP?
b. Precautions to be taken while entering into enclosed space.
