

INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)

May-June 2018-END SEMESTER EXAMINATION

B.Sc (Nautical Science)

Semester: VI

Cargo Handling & Stowage, Paper-VI-(UG21T2603)

Date: 08-06-2018

Maximum Marks: 70

Time: 3 hrs.

Pass Marks : 35

Note: Question No.1 is compulsory

Answer any six question from remaining eight question

Sketch to be drawn wherever relevant

1. A vessel of 6000 tonnes DWT has on board 400tonnes of F.O. 300 tonnes of water, and 150 tonnes of Stores. Total hold capacity of the vessel is 11000 M³.

The following commodities are to be loaded: Bagged seeds (SF = 2.30) & Rice in bags (SF = 1.50)

Calculate the quantities that should be loaded to full capacity. **(10 marks)**

2. With reference to carriage of Dangerous goods in packed form on General Cargo and Container Vessels, Explain briefly: Compatibility and segregation and the use of segregation table with an example.

(10 marks)

3. Describe the categories of Chemical cargo as per MARPOL Annex-II

(10 marks)

4. Draw and label transverse section of a "Type-A Tank" of a gas carrier.

Explain briefly the Purpose of IGC code. **(10 marks)**

5. A tank 9m x 8m x 8m is to be loaded with oil of RD 0.92 at 20°C. How many tons of oil should be loaded if an allowance of 3% of tank volume is to be made for expansion of the oil at the highest temp. (28°C) expected on the voyage . The temp at the load port is 15°C. What is the ratio of the free space to occupied space in the tank at the loading port ? (Density correction factor 0.0005/°C) **(10 marks)**

6. Describe the **physical checks** to be carried out as per ISGOTT "Ship/shore safety check list"

(10 marks)

7. What is Document of Compliance as per IMDG code? What informations are to be mentioned in cargo Manifest for IMDG cargo? **(10 marks)**

8. Describe "Procedure & Arrangement Manual" of a Chemical Tanker. What all operations are recorded in cargo record book? **(10 marks)**

9.Explain:

(i) Re-liquefaction Plant on a gas carrier. **(2X5=10 marks)**

(ii) MARVS.
