INDIAN MARITIME UNIVERSITY

(A Central University, Government of India)

May/June End Semester Examinations
DNS leading to B.Sc. Nautical Science (D L P)- Fifth Semester
(AY 2013-14 to 2015- 16 batches only)

Controlling the Operation of the Ship and Care for Persons on Board (UD11T2501)

Date : 30.06.2017   Maximum Marks:100
Time: 3 Hrs   Pass Marks   : 50

Note: Questions in Section - A are compulsory and carry 20 marks each.
        Attempt 6 out of 7 questions from Section -B and carry 10 marks each.
        Use of Hindship Table permitted.

Section – A

1. M.V. Hindship displacing 16300t kg=7.15m, FSC = 0.09m discharged 300t, Kg=6.10m, Cg=1.3m off the Centreline to Stbd and loaded 300t; Kg=6.1m, Cg = 3.6m to Stbd pf Centreline. A 150t parcel of cargo was shifted horizontally from 3.5m port of Centreline to 1.4m port of Centreline. Calculate the resultant list.   (20 marks)

2. Sketch and label the combined system of framing of double bottom structure.   (20 marks)

Section – B

3. a) Write Short Notes on the following: (10 marks)

   (i) Garbage Management plan   (ii) Oil Record Book
   (iii) SOPEP Manual

4. a) Explain the causes of corrosion in cargo and ballast tanks.

   b) List the mandatory Certificates under SOLAS   (10 marks)

5. a) What are the various duties of a Safety Officer?

   b) List the precautions to be taken prior and during the following operations with reference to Code of Safe Working Practices for Merchant Seaman:

      (i) Using Spray Painting   (ii) Using a Grit Blasting machine

      (10 marks)

6. a) Explain the uses of following gas measuring instruments and how do they contribute towards safety of the ship and human lives on board a tanker:

      (i) Explosimeter   (ii) Tank scope
      (iii) Oxygen analyzer   (iv) Multi Gas Detector   (10 marks)

7. Explain the procedure for requesting Radio Medical Advice.   (10 marks)

8. a) Explain the duties of Company Security officer   (10 marks)
   b) Explain the duties of Ship Security officer

9. a) List the contents of SOLAS Training Manual,   (10 marks)
   b) Explain the checks to be performed on SCBA – prior use.

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