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B.Sc. (NAUTICAL SCIENCE)

Term-End Examination

June, 2012

BNA-024 : SHIP OPERATIONS

Time : 2 Hours

Maximum Marks : 70

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- Note :**
- (i) *Question No 1 and 2 are Compulsory.*
 - (ii) *Attempt any five of the remaining seven questions.*
 - (iii) *Use of non programmable calculator and M.V. Hindship table is allowed.*
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1. A vessel of 6500t, KM 7.2m KG 6.8m is floating upright. A weight of 100T is shifted 2.3 m to port and 3.9m upwards. Calculate the resulting list. **10**
2. M.V. Hindship arrives at a port in R.D. 1.012 with drafts F 6.15 m, A 7.22m. Her sailing draft in water of RD 1.025 was F 5.33m A 5.98m. Calculate the weight of cargo discharged at that port if 85 tonnes of fuel and fresh water were consumed in the port. **10**
3. Draw midship cross-section of a container ship with longitudinal framing. **10**

4. With the help of diagram define the following : 5x2=10
- (a) FLARE
 - (b) CAMBER
 - (c) MOULDED DEPTH
 - (d) FREE BOARD
 - (e) AFT PERPENDICULAR
5. Describe with suitable sketch the structural arrangements in Fore part of the ship to withstand panting and pounding stresses. 10
6. List the entries required for machinery space operations in the Oil Record Book. 10
7. (a) State the conditions under which the glass bottles can be disposed off into the sea. 2x5=10
- (b) State the purpose of international Convention on Antifouling Paints.
8. Describe how a fire drill is conducted with mockfire in Galley. 10
9. Write short notes on the following :
- (a) Centrifugal Pump 4
 - (b) Bow thruster 3
 - (c) Evaporator 3