

**B.Sc. (NAUTICAL SCIENCE)**

**Term-End Examination**

**December, 2013**

**BNA-023 : CARGO HANDLING, STOWAGE  
AND SEAMANSHIP - II**

*Time : 2 hours*

*Maximum Marks : 70*

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*Note : All questions are compulsory.*

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1. Answer the following briefly :
- (a) Why do we take ullages on a tanker ? **2x10=20**
  - (b) What is a gas barrier ?
  - (c) Why is bale capacity not used for determining of the maximum cargo carried on a Bulk carrier ?
  - (d) What information is contained in the capacity plan of a vessel ?
  - (e) Why are reefer logs maintained on a vessel ?
  - (f) For what purposes are slop tanks are provided on a tanker ?
  - (g) What does an Explosimeter measure ?
  - (h) What is a Dangerous Cargo Manifest ?
  - (i) What is a Fantainer ?
  - (j) What does an "Emergency stop" button do for a crane on a ship ? How will you reset the button for next use ?

2. In relation to a Bulk Carrier, explain and then give two examples of each on what are the following :
- (a) Solid Bulk Cargoes **4x3=12**
  - (b) Hygroscopic Cargoes
  - (c) Cargoes likely to shift/liquefy
  - (d) Cargoes liable for spontaneous combustion.
3. (a) Draw a block diagram of an Inert gas system on a tanker and label its major components. **10+4=14**
- (b) Describe any one component of the diagram drawn.
4. (a) In relation to IMDG code for a General Cargo Vessel : **9+5=14**
- (i) List the various classes of IMDG cargo.
  - (ii) What is meant by MFAG ?
  - (iii) Explain the term "Away From".
- (b) What is a Multi Purpose Vessel and what are the cargoes carried on such vessels ?
5. (a) Discuss the importance of maintaining your own health and hygiene on board a ship.
- (b) What precautions will you observe when repairing radar at sea ? **4+3+3=10**
- (c) What precautions will you observe when chipping with compressed air tool ?