

**DIPLOMA IN NAUTICAL SCIENCE**

**Term-End Examination**

**December, 2006**

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

*Time : 2 hours*

*Maximum Marks : 70*

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**Note :**

- (i) All questions are **compulsory**.
  - (ii) Use of scientific calculator, Norries/Burton tables is allowed.
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**1.** Answer briefly the following : 10×2=20

- (a) What is the purpose of Mast riser ?
- (b) Name two types of stripping systems used on tanker while discharging oil.
- (c) Distinguish between the use of single stackers and double stackers while lashing containers on ship.
- (d) What is an open top container ?
- (e) What are evacuators ?
- (f) What is the Lashing Manual ?

- (g) What is emergency shut-down while loading liquid cargo ?
- (h) What is Boil off ?
- (i) What is factor of safety of lifting gears ?
- (j) What do you mean by stack weight of containers ?
- 2.** Hold capacity of 1992 m<sup>3</sup> is to be filled with 1212 tonnes of jute and gunnies. Each jute bale measures 0.30 m<sup>3</sup> and each gunny bale measures 0.40 m<sup>3</sup>.  
Each jute bale weighs 180 kg, and  
each gunny bale weighs 250 kg.  
How many bales of each can be loaded to fill the hold ? 10
- 3.** (a) Explain in brief the emergency shut-down procedure while loading oil on a tanker. 5  
(b) Explain in brief the I.C.S. Tanker Safety Guide for chemical tankers. 5
- 4.** (a) Explain in brief the fully refrigerated cargo containment system on gas carriers. 5  
(b) What precautions will you exercise prior to discharging container from a container ship ? 5
- 5.** Describe in detail how will you take over cargo watch on a tanker discharging in a port. 10

6. (a) Describe the safety precautions while rigging gangway after the ship has made fast. 5
- (b) What checks and safety precautions will you as an officer at forward station observe prior to and while heaving up anchor ? 5