

00414

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

**Term-End Examination**

**June, 2010**

**BNA-041 : NAVIGATIONAL AIDS &  
ENVIRONMENTAL PROTECTION**

*Time : 3 hours*

*Maximum Marks : 70*

*Note : Attempt any three questions from Section-A and any four questions from Section-B. All questions carry equal marks.*

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**SECTION-A**

**NAVIGATIONAL AIDS**

1. (a) Enumerate the principle on which AIS broadcast mode is based.  
(b) List 10 data items to be recorded by a VDR.
  
2. (a) What are the components of the Radar Transmitter unit ?  
(b) What is the difference between ship's head up and north up mode of presentation of the display ?
  
3. What is the purpose of VTS ?
  
4. Enumerate the pilot transfer arrangements required as per solas chapter V.

**SECTION-B**  
**ENVIRONMENTAL PROTECTION, EMERGENCIES**  
**AND SAFETY**

5. Name any two paint failures and write short notes on them.
6. What are the main problems with the design of RO-RO ships ?
7. Describe the method of container identification on board a ship.
8. Name any five objectives of GMDSS.
9. Explain the three basic tools of fire fighting.
10. Write short note on Indian SAR Organisation.

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