

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

**Term-End Examination**

**June, 2011**

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

*Time : 3 hours*

*Maximum Marks : 70*

- Note :** (i) *All questions are compulsory.*  
(ii) *Choice is given in the questions.*  
(iii) *All questions carry equal marks.*

1. List ten data items to be recorded by a VDR with their source. **10**
2. What precautions are to be taken by O.O.W. before starting the radar ? **10**
3. What facilities are provided by ARPA for navigation ? **10**

**OR**

List 20 navigation equipment required to be carried on board ships of 50,000 G.T. upwards as per solas' 74 as amended chapter V regulation 19.

4. Name any two paint failures and write short notes on them. **10**

**OR**

What is the impact of Anti-Fouling paints on the marine organisms ?

5. What are the handling (lifting) methods of containers ? 10

**OR**

Discuss briefly any five problems associated with Ro-Ro ships.

6. What are the objectives of Global Maritime Distress and Safety System (GMDSS). ? 10
7. When pirates threaten the ship and are likely to board the vessel, what preventive measures are required to be taken by master ? 10
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