

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

**Term-End Examination**

**June, 2014**

**BNA-015 : NAVIGATION-II**

**(BRIDGE EQUIPMENT, WATCH KEEPING  
METEOROLOGY AND OCEANOGRAPHY)**

*Time : 2 hours*

*Maximum Marks : 70*

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*Note : Answer any four questions from Section- I and all questions from Section- II. All questions carry equal marks.*

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**SECTION - I**

**(BRIDGE EQUIPMENT AND WATCH KEEPING)**

1. What are the errors of perpendicularity and side error on a sextant ? How are these corrected ? 10
2. How does a magnetic compass give direction ? 10  
What care is required for a wet card magnetic compass ?
3. Explain the principle on which an echo sounder functions. 10
4. (a) Explain how to decide whether a vessel is overtaking. 3  
(b) Explain "safe speed". 7
5. Describe with suitable sketch, the lights to be carried by a vessel "Not Under Command". 10

## SECTION - II

### (METEOROLOGY AND OCEANOGRAPHY)

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|----|-----|--|----|
| 6. | (a) | Explain pressure gradient  | 5  |
|    | (b) | Explain Solar and Terrestrial radiators                            | 5  |
| 7. |     | What are the causes of "Global Warming" ? What are its effects ?   | 10 |
| 8. | (a) | Define relative humidity.  | 3  |
|    | (b) | Define dew point temperature. How is it useful during navigation ? | 7  |
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