

B.Sc. (NAUTICAL SCIENCE)

Term-End Examination

December, 2011

BNA-015: NAVIGATION-II

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

Time : 2 hours

Maximum Marks : 70

Note : *Answer all questions, each question carries equal marks.*

SECTION - I

1. Explain working principle of sextant and list the errors of sextant. 10
2. Write short notes on any of the *two* : 10
 - (a) Gyro compass.
 - (b) Winding of marine chronometer.
 - (c) Magnetic compass.
3. Define with suitable sketch the following : 10
 - (a) Masthead light.
 - (b) Side lights.
 - (c) Stern light.
 - (d) All-round light.

4. Write short notes on any of the *two* :

10

- (a) Safe speed.
- (b) Stand on vessel.
- (c) Look out

OR

Explain vessel restricted in her ability to maneuver, and describe the lights and shapes required to be used by these vessels.

SECTION - II .

5. Draw a neat diagram showing composition of earth atmosphere, zones and their height from sea level. Explain which atmospheric layer is suitable for aeroplanes to fly. 10

OR

With the help of a diagram explain the working of Aneroid barometer.

6. Define *any four* from following : 10
- (a) Radiation.
 - (b) SALR
 - (c) Diurnal variation of atmospheric temperature.
 - (d) Dew point
 - (e) Absolute humidity
 - (f) Temperature Inversion
7. Write short notes on any of the *two*. 10
- (a) Green house effect.
 - (b) Insolation.
 - (c) Colour of sea.
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