



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS / BNS / SEM-5 / BNS-505 / 2012-13**

**2012**

**ENVIRONMENTAL SCIENCE-III**

Time Allotted : 3 Hours

Full Marks : 70

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

**GROUP – A**

**( Objective Type Questions )**

1. Choose the correct alternatives for the following :  $10 \times 1 = 10$

A. i) WMO stands for 5 × 1

- a) World Meteorological Observer
- b) World Meteorological Orientation
- c) World Meteorological Organization
- d) World Meteorology Organization.

ii) Which one of the following is not a frontal zone ?

- a) Polar frontal zone
- b) Arctic frontal zone
- c) Intertropical frontal zone
- d) Oceanic frontal zone.



iii) What is the full form of RHSC ?

- a) Right Hand Sequence Circle
- b) Right Hand Semicircle
- c) Right Hand Segmented Circle
- d) Regional Head Semicircle.

iv) Local Name of TRS in South Pacific Western Side ?

- a) Cyclone
- b) Typhoon
- c) Willy-Willy
- d) Hurricane.

v) The MARPOL convention was adopted on

- a) 12th November, 1973
- b) 2nd November, 1973
- c) 12th November, 1978
- d) 2nd November, 1978.

B. Answer the following questions :

5 × 1

- a) What is Frontolysis ?
- b) What is dangerous semicircle ?
- c) What is VOF ?
- d) What is path of TRS ?
- e) What is Meteorological Log Book ?



**GROUP – B**

**( Short Answer Type Questions )**

Answer any *three* of the following.  $3 \times 5 = 15$

2. What is Air Mass ? What are the main classifications of Air Mass ?
3. What is Frontogenesis ? What is occlusion ?
4. What are the main classifications of ships regarding weather reporting system ? Briefly explain.
5. What is the principle of mercury barometer ? Why mercury is used in barometer ?
6. What is weather routing of ships ? What are the basic parameters behind this ?

**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

7. a) What are the main factors affecting the properties of Air Masses ?
- b) What are fronts ? How fronts are responsible for changing in weather ?  $6 + ( 3 + 6 )$

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8. a) Briefly explain how weather is reported from the sea.
- b) What are the publications supplied by IMD to the selected and supplementary ships ?
- c) Briefly explain the term danger messages ?      7 + 4 + 4
9. a) What is Tropical Revolving Storm ? What is its origin, movement and life span ? How can you avoid action of TRS ?
- b) Write briefly a note on Voyage Planning, Execution and Monitoring ?      (2 + 4 + 3) + 6
10. Write short notes on the following :
- a) Pollution by Oil, Chemicals
- b) Atmospheric pollution by Marine Transport
- c) Weather forecasting.
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