



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/BNS/SEM-2/BNS-205/2013**

**2013**

**ENVIRONMENTAL SCIENCE – I**

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**

**( Multiple Choice Type Questions )**

1. Choose the correct answers for the following :

10 × 1 = 10

- i) The composition of the atmosphere
  - a) varies with season
  - b) remains constant in lower layers
  - c) varies with altitude
  - d) varies from place to place.
- ii) About 50% of the atmosphere lies below an altitude of
  - a) 25 km
  - b) 20 km
  - c) 10 km
  - d) 5.6 km.
- iii) What is the length of Indian coast line ?
  - a) 6000 km
  - b) 7000 km
  - c) 6500 km
  - d) 7500 km.



- iv) What is correct depth of Monaco-Dep ?
  - a) 3000 m
  - b) 2000 m
  - c) 2500 m
  - d) 3500 m.
- v) Psychrometer is an instrument for obtaining
  - a) R.H.
  - b) temperature of air mass
  - c) dew point
  - d) both R.H. and dew point temperature.
- vi) The total insulation is greatest/highest at
  - a) Tropic of Cancer
  - b) Tropic of Capricorn
  - c) Equator
  - d) none of these.
- vii) Which layer affects Navigation and Communication ?
  - a) Troposphere
  - b) Ionosphere
  - c) Mesosphere
  - d) Stratosphere.
- viii) Frost point is the process of lowering the temperature of a liquid or a gas below its freezing point without becoming solid.
  - a) True
  - b) False.
- ix) E.E.Z. extends up to
  - a) 450 miles from the coast
  - b) 250 miles from the coast
  - c) 150 miles from the coast
  - d) 200 miles from the coast.
- x) Surface area of the oceans together is how many square miles ?
  - a) 300 million square miles
  - b) 350 million square miles
  - c) 360 million square miles
  - d) 400 million square miles.



**GROUP – B**

**( Short Answer Type Questions )**

Answer any *three* of the following.

3 × 5 = 15

2. Define the following :
  - a) R.H.
  - b) Dew point
  - c) DALR
  - d) SALR
  - e) Insolation.
3. Draw and label the different layers in the Earth's atmosphere and state why the Troposphere is important.
4. Explain energy budget of the ocean with proper equation.
5. Describe the formation of cargo sweat in case of rise in air temperature due to voyage into Tropical region.
6. Briefly explain the different types of waves.
7. Why is diurnal range of air temperature over land larger than that over sea ?

**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following

3 × 15 = 45

8.
  - a) What are the main ways for Transference of Heat ? Describe the process.
  - b) How are clouds formed ? Explain the process.

7 + 8



9. a) What are the main types of fog ? Describe any two.  
b) Why are polar regions colder than equatorial regions ?  
What is Fohn Wind Effect ? (2 + 5) + (4 + 4)
10. a) What are the main isobaric patterns ? Describe any three.  
b) Discuss the importance of oceanography. (4 + 6) + 5
11. a) Discuss the factors determining temperature and its distribution on ocean.  
b) How can salinity of ocean be controlled ? 8 + 7
12. Why is colour of ocean blue ? Write main factors of surface and deep ocean currents. What is meant by coastal upwelling and downwelling. 5 + 5 + 5
-