

**Indian Maritime University**  
**(A Central University, Govt of India)**  
**Supplementary Examinations – March/April 2024**  
**Programme Name: B. Sc. (NS)**  
**Semester: II**  
**Subject Code: UG21T5206**  
**Subject Name: Environmental Studies**

Date: 15.03.2024

Max Marks: 70

Duration: 03 Hrs

Pass Marks: 35

General Instructions

- (i) All Sections (A, B & C) are to be attempted.
- (ii) Section A & B are compulsory, Section – C answer any five out of Seven Questions.

**Section A – All Questions Compulsory (10x1mark=10marks)**

State whether the following statements are True or False.

1. In nature the abiotic components consist of air, sunlight, water and the biotic components are animals, plants, insects (True/False)
2. The Indian forests of the North-East and the Western Ghats are globally accepted Hot Spots of Biodiversity (True/False)
3. Chemicals like sulphur dioxide and nitrogen oxides are produced when fossil fuels are burned are the root cause of Acid Rain (True/False)
4. Ozone in the upper atmosphere is vital to all life as it protects the earth from the sun's harmful infrared radiation. (True/False)
5. Value education in the context of environment studies means one's own principles and standards from which we judge what is right and wrong behaviour when dealing with issues concerning the environment (True/False)
6. A Wind Rose is a graphic tool used by meteorologists to summarize information on wind speed and direction at a particular location over a specified period of time (True/False)
7. Stratopause is a layer separating the Troposphere and the Stratosphere (True/False)

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8. The average atmospheric pressure at sea level is 1013.2 millibar (True/False)
9. The direction and force of wind experienced on a moving ship is termed as the Apparent or Relative Wind (True/False)
10. A Cirrus cloud is an example of a mid-level cloud (True/False)

**Section B- All Questions Compulsory (5x2marks = 10marks)**

11. What is meant by the Multidisciplinary Nature of Environmental Studies? (2 marks)
12. What is Insolation and Terrestrial Radiation? (2 marks)
13. Explain Non-Renewable and Renewable resources with examples. (2 marks)
14. Explain Food Chain and Food Web? (2 marks)
15. What are the reasons for variation in population growth rates in different regions on Earth? (2 marks)

**Section C- Answer any Five out of Seven Questions ( 5x10marks=50marks)**

16. Explain in detail the In-Situ and Ex-Situ conservation strategies of Biodiversity with suitable examples. (10 marks)
17. Explain the role of an individual in the conservation of Natural Resources? (10 marks)
18. What is Greenhouse Effect and how does it influence Global Warming? (10 marks)
19. Define: (4x 2.5 marks= 10marks)
- a) Isobar
  - b) Barometric Tendency
  - c) Pressure Gradient
  - d) Buys Ballots Law
20. What is the Beaufort Wind Scale and how is it used for estimating the wind speed at sea? (10 marks)

21. Explain the process of cloud formation by convection currents, with some examples of Low Level Clouds. (10 marks)

22. Draw the Ecological Pyramid with numbers and explain in details. (10 marks)

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