

**M.A./M.Sc. Part-I Examination, 2013**

**GEOGRAPHY**

**PAPER—II**

*Full Marks : 100*

*Time : 4 hours*

*The figures in the right-hand margin indicate marks*

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

*Illustrate the answers wherever necessary*

**MODULE — 3**

**( Climatology )**

**[ Marks : 50 ]**

**GROUP — A**

**Answer any two questions : 15 × 2**

- 1. Identify and explain the nature of sources of greenhouse gases. What are the applications of climatology ? 10 + 5**

*( Turn Over )*

- 2. Discuss the role of wind and ocean currents in horizontal distribution of temperature. How is heat balance in the Earth-Atmosphere system disturbed due to anthropogenic factors? 10 + 5
- 3. Explain the role of airmasses and fronts in the genesis and development of extra-tropical cyclones. Account for the hazards related to tropical cyclones. 10 + 5
- 4. Elaborate the scheme of climatic classification after G. Trewartha. What is ENSO phenomenon? 10 + 5

GROUP - B

Answer any two questions : 10 x 2

- 5. How does atmospheric composition change with height? 10
- 6. Define vapour pressure and bring out its significance. 10
- 7. Explain the role of Coriolis Force on air motion. Give specific examples. 10

- 8. Discuss the origin and characteristics of tornadoes. 10

MODULE - 4

( Environment Study )

[ Marks : 50 ]

GROUP - A

Answer any two questions : 15 x 2

- 1. What are secondary pollutants and how they are formed? Describe the negative effects of responsible pollutants on crops and natural vegetation. 5 + 10
- 2. How are water quality standards determined? Distinguish between water quality criteria pollutants and maximum contaminant levels. 4 + 11
- 3. Elucidate with global example how the components of socio-cultural environment are important for human welfare? 15

( 4 )

4. What do you mean by intrinsic value and instrumental value of environment? Explain how environmental ethics can be useful for the conservation of natural resources. 5 + 10

GROUP - B

Answer any two questions : 10 x 2

5. Correlate the biotic community with the abiotic environmental factors of an ecosystem. 10
6. Explain in what ways the managed ecosystem is similar to and different from natural ecosystem. What is ecological footprint? 8 + 2
7. Explain how climate change can influence hydrological cycle? What is atmospheric brown cloud? 8 + 2
8. Define sustainability and sustainable development. What do you understand by sustainable society? 5 + 5