

Total number of printed pages-4

14 (SEM-IV) GGY 4176

2025

GEOGRAPHY

Paper : GGY-4176

(Environment and Climate Change)

Full Marks : 80

Time : Three Hours

***The figures in the margin indicate
full marks for the questions.***

Unit – I

(Marks : 40)

Answer question no. **1** and ***any three*** from the rest.

1. Critically discuss the significance of Traditional Ecological Knowledge (TEK) and belief systems in contemporary ecological conservation practices. 16

Or

Discuss the functioning and utility of atmospheric circulation patterns like El Nino Southern Oscillation (ENSO), walker circulation, and Indian Ocean Dipole. How do these patterns affect the global and regional climate ?

2. Define ecology and briefly describe how scientific methods such as observation and experimentation help in understanding ecological processes. 8
3. Discuss the major ideologies of environmentalism and their relevance to contemporary environmental challenges. 8
4. Explain the characteristics of the environment of land, water, and forests specifically in North-East India. 8
5. Write short notes on **any two** of the following : 4×2=8

(a) Sacred groves

(b) Traditional irrigation system in NE India

(c) Global circulatory models

Unit – II*(Marks : 40)*

Answer question no. **6** and ***any three*** from the rest.

6. Explain the concept of environmental valuation and accounting. Discuss its importance in managing livelihood and sustainable development with suitable examples. 16

Or

Evaluate the mechanisms and consequences of anthropogenic and natural radioactive forcing contributing to climate change.

7. Highlight the sector-specific vulnerabilities of climate change with reference to agriculture and human health. 8
8. Outline the strategies for climate change mitigation as suggested in the IPCC reports. 8
9. Discuss the strengths and weaknesses of current climate projection models. 8

10. Write short notes on ***any two*** of the following : $4 \times 2 = 8$

(a) Aerosols

(b) Milankovitch cycle

(c) IPCC
