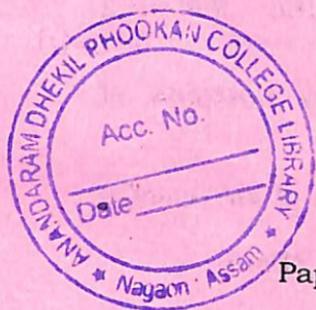


2025



GEOGRAPHY

(Major)

Paper : GGY0500104

(**Climatology, Biogeography and Oceanography**)

Full Marks : 45

Time : 2 hours

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

1. Answer the following questions in very short :

1×5=5

- (a) What is atmospheric pressure gradient?
- (b) Define weather.
- (c) Give an example of man-made ecosystem.
- (d) Write one characteristic of ocean deposits.
- (e) What is the normal lapse rate in the atmosphere?

(2)

2. Answer any *five* from the following questions : $2 \times 5 = 10$

- (a) Mention two biodiversity hotspots of India.
- (b) Write two characteristics of air mass.
- (c) Give an example of food chain.
- (d) What is submarine topography?
- (e) Distinguish between ecosystem and ecology.
- (f) What are the components of biosphere?
- (g) Distinguish between continental shelf and continental slope.
- (h) What is relative humidity?

3. Answer any *four* from the following questions : $5 \times 4 = 20$

- (a) Write a note on the major soil types of India along with their regional distribution.
- (b) Explain the concept of bio-energy cycle.
- (c) Mention the effects of El-Nino and their climatic significance.
- (d) Distinguish between the mechanism of tropical and extra-tropical cyclones.

(3)

- (e) What are the techniques of weather forecasting?
- (f) Explain the major bottom relief features of the Atlantic Ocean.
- (g) Write a note on energy flow and ecological pyramid and its significance in the environment.
- (h) Explain the factors that modify the air mass in the atmosphere.

4. Answer any *one* from the following questions : 10

- (a) What is the composition of atmosphere? Explain the vertical structure of the atmosphere and the associated characteristics with suitable diagram. $3+7=10$
- (b) What is ocean current? Classify it into different types. Explain briefly how ocean currents influence local weather of an area. $2+2+6=10$
- (c) Classify ecosystem into different types. Mention the characteristics of grassland ecosystem with suitable examples. $4+6=10$
- (d) Explain the factors and processes of soil formation. Mention how variation of soil types is related to different vegetation types in global context. $5+5=10$

