

2 0 1 6

GEOGRAPHY

( Major )

Paper : 3:1

( **Soil and Biogeography** )

*Full Marks* : 60

*Time* : 3 hours

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

1. Answer the following by choosing the most appropriate option given against each question : 1×7=7
- (a) Which of the following is often called the life layer of the Earth?
- (i) Lithosphere
  - (ii) Biosphere
  - (iii) Hydrosphere
  - (iv) Atmosphere

- (b) Which of the following properties of the soil largely determines water retention and transmission capacity?
- (i) Structure
  - (ii) Texture
  - (iii) Colour
  - (iv) Odour
- (c) Which one of the following is an active soil forming factor?
- (i) Parent materials
  - (ii) Topography
  - (iii) Climate and biological activity
  - (iv) All of the above
- (d) In which soil horizon you find the parent materials?
- (i) A
  - (ii) B
  - (iii) C
  - (iv) D
- (e) Where do you find xerophytes?
- (i) Equatorial rain forest
  - (ii) Grasslands
  - (iii) Ponds
  - (iv) Deserts

- (f) What are the components of an ecosystem?
- (i) Bacteria and fungi
  - (ii) Solar energy
  - (iii) Aquatic animals
  - (iv) Aquatic plants
- (g) Which one of the following is a principal characteristic of a rain forest?
- (i) Seasonal variation in temperature
  - (ii) A large variation in moisture
  - (iii) A sparse vegetation
  - (iv) An area with high humidity

2. Give very brief answers to the following questions.
- (a) What is synecoculture?
  - (b) Define the primary succession in an ecosystem.
  - (c) What are the factors influencing soil formation?
  - (d) Describe the characteristics of the azonal soils.

3. Write short notes on any *three* of the following :  $5 \times 3 = 15$

- (a) Pedocals
- (b) Omnivores
- (c) Physical properties of soils
- (d) Oriental region
- (e) Biodiversity

4. (a) Describe soil horizons and associated properties. 10

Or

(b) What are the bases of classifying zonal soils? List the major types of zonal soils and describe any one of them in detail.  $2+3+5=10$

5. (a) What are the characteristics of a biogeographic region? Describe a biogeographic region in terms of its spatial extent and biodiversity.  $3+7=10$

Or

(b) Define an ecosystem. Explain the functions of an ecosystem.  $2+8=10$

6. (a) What is the interrelationship of soil and biogeography? Discuss the scope of soil geography.  $3+7=10$

Or

(b) Discuss the nature and distribution of biodiversity in Assam. 10

\*\*\*