

2016

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 main producers of pond ecosystem?
- (i) Bacteria and fungi
 - (ii) Solar energy
 - (iii) Aquatic animals
 - (iv) Aquatic plants
- (g) Which one of the following is the principal characteristics of equatorial rain forest?
- (i) Seasonal variation of rainfall
 - (ii) A large water surplus and soil moisture
 - (iii) A sparse vegetation
 - (iv) An area with extensive grasslands

2. Give very brief answer of the following : $2 \times 4 = 8$

- (a) What is synecology?
- (b) Define the primary producer of an ecosystem.
- (c) What are the primary factors of soil formation?
- (d) Describe the major characteristics of azonal soils.

3. Write short notes on any *three* of the following : 5×3=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

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