

2019

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 questions by choosing the most appropriate option given against each question : 1×7=7
- (a) Which one of the following soils is formed under conditions of high rainfall with alternating dry and wet periods?
- (i) Arid soil
 - (ii) Laterite soil
 - (iii) Saline soil
 - (iv) Alkaline soil
- (b) Which one of the following soils is the end product of decomposition?
- (i) Saline and alkaline soils
 - (ii) Black soil
 - (iii) Laterite soil
 - (iv) Red soil

(2)

(c) What do you mean by the term 'vegetation'?

(i) Vegetation refers to the assemblage of plant species living in association with animal species

(ii) Vegetation refers to the assemblage of plant species living in association with each other in a given environment frame

(iii) Both (i) and (ii)

(iv) None of the above

(d) Soil profile is

(i) a cross-section through the soil horizons

(ii) the nature of the soil

(iii) an overall profile of the soil

(iv) None of the above

(e) 'Illuviation' refers to

(i) the redeposition of the solutes and the particles in the lower parts of the soil profile

(ii) the physical downward washing of clay and other fine particles

(iii) the redeposition of the solutes in the upper parts of the soil profile

(iv) None of the above

(3)

(f) Plants which grow in very cold areas are known as

(i) mesophytes

(ii) microthorns

(iii) xerophytes

(iv) None of the above

(g) Which of the following is not an evergreen forest?

(i) Mediterranean

(ii) Equatorial

(iii) Coniferous

(iv) Monsoon

2. Write very short notes on the following : $2 \times 4 = 8$

(a) Pedology

(b) Parent material

(c) Ecological succession

(d) Wildlife corridor

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

(a) Biomass

(b) Rain forest

(c) Soil horizon

(d) Biodiversity

(e) Deforestation

4. (a) Describe various soil types and their associated properties. 10

Or

- (b) Describe the soil-forming processes and discuss how the processes of soil formation vary in different climates. 10

5. (a) Give a comprehensive picture on the distribution and characteristics of plants in the world. 10

Or

- (b) Describe in detail the need for conservation of biodiversity in N-E India. How can project tiger help in biodiversity conservation? 7+3=10

6. (a) What is biosphere? Describe the processes of interaction among its various components. 3+7=10

Or

- (b) Define ecology and ecosystem. Give a brief description of the concept with suitable examples. 10
