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4 SEM TDC BOTH (CBCS) C 9

2023

(May/June)

BOTANY

(Core)

Paper : C-9

(Plant Ecology and Phytogeography)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. Choose the correct answer of the following : 1×5=5
- (a) All living organisms of the earth constitute biosphere / community / biome / association.
- (b) The word 'ecosystem' was first coined by Weaver and Clements / A. G. Tansley / E. P. Odum / All of them.
- (c) In a pond ecosystem, the food chain starts with phytoplankton / zooplankton / small fishes / aquatic insects.

(2)

- (d) The branch of Ecology which deals with the study of soil and its influence on organisms is called Landscape Ecology/ Pedoecology/Autecology/Community Ecology.
- (e) Ten percent law was given by Lindeman/Goldmann/Beckmann/None of them.
2. Write short notes on any *three* of the following : $4 \times 3 = 12$
- (a) Levels of organization
- (b) Soil water
- (c) Symbiosis
- (d) Logistic growth form of population
- (e) Detritus foodchain
3. Define plant community. Describe elaborately the analytical and synthetic characters of plant community. State the Raunkiaer's law of frequency. $2+7+3=12$

Or

Write explanatory notes on the following : $6+6=12$

- (a) Biological spectrum
- (b) Pyramid of energy

(3)

4. What do you know about nutrient cycling? Explain one sedimentary cycle with appropriate sketches. $4+8=12$

Or

Define soil horizons. Discuss briefly the process of soil formation in nature. $7+5=12$

5. What do you mean by endemism? Describe the theories regarding the origin of endemic plants and mention the factors responsible for endemism. Write scientific name of four endemic plants of India. $2+4+4+2=12$

Or

Write notes on the following : $6+6=12$

- (a) Moist tropical forest of India
- (b) Floristic regions of India
