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5 SEM TDC BOT M 7

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(November)

BOTANY

(Major)

Course : 507

(Plant Ecology, Phytogeography and Evolution)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

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

1. (a) Fill in the blanks : 1×3=3

- (i) The aspect of plant ecology which is concerned with the study of individual plant is called _____.
- (ii) The process by which migrants establish themselves in a new area after migration is known as _____.
- (iii) _____, is a macronutrient, has inorganic pools in both atmosphere and soil.

(b) Choose the correct answer : $1 \times 2 = 2$

(i) Interpretations of causes of plant distribution on the earth is called phytogeography / descriptive geography/dynamic phytogeography.

(ii) The mutation theory of evolution was proposed by Weismann/ de Vries/Huxley.

(c) Write short notes on the following : $3 \times 3 = 9$

(i) Deforestation and its consequences

(ii) World's biodiversity hot spots

(iii) Global climate change

2. What are pollutants? Give an account of the sources of air pollution. Suggest suitable methods of control of air pollution. $1+5+4=10$

Or

What is endemism? Write concise notes on the endemic and endangered species of North-East India. What do you mean by biosphere reserve? $2+(3+3)+2=10$

3. Define plant succession. Describe in detail the sequential stages of a typical hydrosere. What is meant by climax concept? $1+7+2=10$

(3)

Or

What is biogeochemical cycle? Describe with sketches, the phenomena with special reference to water cycle. Mention the impact of human activities on water cycle. 1+6+3=10

4. (a) Write a precise note on any *one* of the following : 7

(i) Flora of Assam

(ii) Mangrove forests of India

(b) What do you mean by organic evolution? Describe briefly the mechanism of organic evolution. 1+6=7

Or

Write an explanatory note on the origin of life in the light of chemical evolution. 7

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