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5 SEM TDC BOT M 7

2019

(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) First National Park of India is _____.

(ii) Red Data Book provides data on
_____.

(iii) The homologous organs are those
that show similarity in _____.

(b) Express in one word : 1×2=2

(i) Gas released during Bhopal Gas
Tragedy

(ii) The phenomenon of the confinement of species, genera or other groups to a small area beyond which their existence is not found

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

(i) Energy flow in the ecosystem

(ii) Global climate change

(iii) Endangered species of North-East India

2. What is biogeochemical cycle? Describe any one gaseous cycle you have studied with suitable sketches. Mention the impact of human activities on water cycle. $1+6+3=10$

Or

What is phytoremediation? What are the chief sources of water pollution? According to you, what are the best methods for controlling water pollution? Write a short note on 'acid rain'. $1+4+2+3=10$

3. What do you mean by food chain? Discuss different types of food chains found in a terrestrial ecosystem. $2+4+4=10$

(3)

Or

Define plant succession. Describe in detail the sequential stages of a typical hydrosere. What do you mean by climax concept?

1+7+2=10

4. Write precise note on any *one* of the following :

7

(a) Vegetation of Eastern Himalayas

(b) Mangrove forests of India

5. Describe briefly the mechanism of organic evolution.

7

Or

Give a brief account of the mutation theory of de Vries and discuss its importance in explaining organic evolution.

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