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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) Express in one word : 1×3=3

(i) The succession resulting from changes brought about by factors external to the community

(ii) Species confined to a particular area

(iii) The transitional zone between terrestrial and aquatic ecosystems

(b) Fill in the blanks : 1×2=2

(i) Lawrence's principle is related with _____ phytogeography.

(ii) Jean Baptiste de Lamarck published his theory in the book _____.

(c) Give precise accounts on the following :

3×3=9

(i) Pyramid of biomass

(ii) IUCN and Red Data Book

(iii) Raunkaier's law of frequency

2. Define ecosystem. Write about the structure and function of ecosystem.

2+4+4=10

Or

What is plant community? Describe elaborately the analytical and synthetic characters of plant community.

2+4+4=10

3. What is greenhouse effect? What are the present and possible impacts of global warming? Mention the role of IPCC towards global warming threat.

3+5+4=12

Or

Answer/Explain the following :

4×3=12

(a) Define and distinguish between *ex situ* and *in situ* conservations.

(b) Morphological differences between hydrophytes and xerophytes

(c) WWF

(3)

4. Write precise notes on the following : 6+6=12

(a) Brief outline on phytogeographical regions of India

Or

Principles of phytogeography

(b) Modern theory regarding biochemical origin of life

Or

Geological time scale
