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**5 SEM TDC BOT M 7**

**2 0 1 6**

( November )

**BOTANY**

( Major )

Course : 507

**( Plant Ecology, Phytogeography and Evolution )**

Full Marks : 48

Pass Marks : 19 (Backlog)/14 (2014 onwards)

Time : 2 hours

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

1. (a) Fill in the blanks : 1×3=3

(i) Transitional zone between terrestrial and aquatic ecosystems is known as \_\_\_\_.

(ii) The amount of organic matter or biomass produced by an individual organism, population, community or ecosystem during a given period of time and area is known as \_\_\_\_.



( 2 )

(iii) The branch of biogeography that is concerned with the geographic distribution of plant species and their influence on the earth's surface is known as \_\_\_\_.

(b) Choose the correct one :

1×2=2

(i) Which of the following is always upright ecological pyramid?

(1) Pyramid of number

(2) Pyramid of biomass

(3) Pyramid of energy

(ii) Which of the following indicates the relationship between different groups of organism and also helps in contrasting the story of life's journey on this planet?

(1) Fossil

(2) Speciation

(3) Isolation

2. Give precise notes on the following :

3×3=9

(a) 10% energy flow in the ecosystem

(b) Raunkiaer's law of frequency

(c) IUCN and Red Data Book

3. Define ecosystem. Write about the structure and function of an ecosystem.

2+5+5=12

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( Continued )

( 3 )

Or

Define environmental pollution. Write about the sources and impact of water pollution on the ecosystem. 2+4+6=12

4. Define plant adaptation. Compare among hydrophytic, xerophytic and epiphytic adaptations. 1+11=12

Or

Write short notes on the following : 4×3=12

(a) Conservation of biodiversity

(b) Greenhouse effect and global warming

(c) Physiographic factors

5. Write precise notes on the following : 5×2=10

(a) Phytogeographical regions of India

Or

Major division of phytogeography

(b) Vestigial organs in human, animal and plants

Or

Organic evolution and its main postulates

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