1 SEM TDC ZOOH (CBCS) C 2

2022

(Nov/Dec)

ZOOLOGY

(Core)

Paper : C–2

(Principle of Ecology)

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 : 1×5=5

(a) The transfer of food and energy in an ecosystem through a series of organisms is called

(i) food and energy transfer

(ii) food chain

(iii) food web

(iv) None of the above

(b) Forest and wildlife are

(i) renewable resources

(ii) non-renewable resources

(iii) inexhaustible natural resources

(iv) None of the above

(c) The term 'ecosystem' was first coined by

(i) Linnaeus

(ii) Bentham and Hooker

(iii) A. G. Tansley

(iv) None of them

(d) The flow of energy in an ecosystem is

(i) unidirectional

(ii) multidirectional

(iii) bidirectional

(iv) None of the above

(e) The main components of an ecosystem are

(i) the sun and plants

(ii) the sun and animals

(iii) plants and animals

(iv) biotic and abiotic factors

2. Write short notes on any *two* of the following : 4×2=8

(a) Life tables

(b) r and k strategies

(c) Survivorship curves

3. Discuss the role of temperature and light in ecosystem. 3+3=6

4. Define species diversity. Write briefly about the different forms of species diversity. 2+4=6

Or

Discuss briefly about ecotone and edge effect. 3+3=6

5. What is biogeochemical cycle? Describe nitrogen cycle. 3+5=8

Or

Define ecosystem. Write about the different types of ecosystem with reference to forest ecosystem. 2+2+4=8

6. Write short notes on (any *two*) : 5×2=10

   (a) Ecological pyramid

   (b) Energy flow in ecosystem

   (c) Human modified ecosystem

7. Define population. Explain the Lotka-Volterra equation for competition. 2+8=10

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