REV-01
BSZ/22/27

2023/06

SET A

B.Sc. ZOOLOGY
SECOND SEMESTER
ECOLOGY
BSZ-202

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins. **Full Marks: 35**

Objective

Time: 15 mins. **Marks: 10**

Choose the correct answer from the following: ***1×10=10***

1. The natural place of an organism in a community is called:
   a. Niche b. Habitat
   c. Biome d. Habit

2. Which of the following requires most energy?
   a. Secondary consumers b. Decomposers
   c. Primary consumers d. Primary producers

3. In an ecosystem, the energy flow is always.....
   a. Unidirectional b. Bidirectional
   c. Down direction d. Any direction

4. Ecotone shows:
   a. Greater vegetation complexity b. Less Biodiversity
   c. No new species d. All of these

5. Y-shaped energy flow model is best because it explains the energy flow in:
   a. Grazing food chain b. Detritus food chain
   c. Both a & b d. None of these

6. Total incoming solar influx in a year is:
   a. 11,18,872 gcal/cm^2/yr b. 18,872 gcal/cm^2/yr
   c. 11,872 gcal/cm^2/yr d. None of these

7. When the food chain is very small, the final consumers may get:
   a. No energy b. Small amount of energy
   c. Large amount of energy d. None of these

8. All the species of deer are:
   a. Primary consumers b. Secondary consumers
   c. Primary herbivores d. Both a & b

9. Energy in an ecosystem can be used:
   a. Once b. Twice
   c. Thrice d. None of these

10. In an ecosystem, the grazing and detritus food chain operate:
    a. One by one
    b. Simultaneously
    c. Both a & b
    d. None of these

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Descriptive

Time : 1 hr. 15 mins. **Marks : 25**

[Answer question no.1 & any two (2) from the rest]

1. Write short notes: (*any two*) 2.5+2.5=5
   a) Population
   b) Community
   c) Ecotone

2. What do you mean by energy flow in an ecosystem? Enumerate the different principles of energy flow in an ecosystem. Brief details about the different models of energy flow in the ecosystem. 2+2+6=10

3. What do you mean by bio-geochemical cycles? Explain the carbon, nitrogen and sulphur cycles with proper diagram. 1+9=10

4. With the help of examples state the differences between food chain and food web. Write the significance of limiting factors. 5+5=10

5. With the help of labelled diagram, write an essay on how ecological succession takes place. Describe characteristics of climax community. 2+5+3=10

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