5 SEM TDC ZOO M 5

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(November)

ZOOLOGY

(Major)

Course : 505

(Environmental Biology and Wildlife)

Full Marks : 48
Pass Marks : 19

Time : 2 hours

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

1. Fill in the blanks :   1×5=5

   (a) A regional ecological unit having a specific climate is known as ——.

   (b) In predation one organism kills another organism for ——.

   (c) Methane and nitrous oxide are two important —— gases.

       (Turn Over)

(d) The transitional zone between two different ecosystems is known as ——.

(e) The scientific name of golden Mahseer is ——.

2. Distinguish between (any *two*) : $3 \times 2 = 6$

(a) Pioneer community and Climax community

(b) Opportunist species (*r*-species) and Equilibrium species (*k*-species)

(c) Shelford's law of tolerance and Liebig's law of minimum

3. Write short notes on (any *two*) : $4 \times 2 = 8$

(a) Lotka-Volterra model

(b) Red data book and Red list categories of IUCN

(c) Existing EIA framework of India

4. Justify the following with proper write-up (any *two*) : $4 \times 2 = 8$

(a) Greenhouse effect is problematic as well as important.

(b) Biomes always support greatest number of species.

(c) There is always loss of chemical energy in each step in a food chain.

(*Continued*)

5. What do you understand by productivity of an ecosystem? What are primary, secondary and net productivity? How can we measure productivity? Discuss ecological efficiency.

1+3+3+3=10

Or

(a) What is biodiversity? Discuss the values of biodiversity and the major causes for its loss. 2+4=6

(b) What is Convention on Biological Diversity (CBD)? Discuss the main goals and commitments of CBD. 1+3=4

6. How ozone formation takes place? Discuss various causes of ozone depletion and its harmful effects. What is Montreal Protocol (1987)? 2+4+4+1=11

Or

Define natural and anthropogenic pollution with examples. List out the common air pollutants, their sources and related pathological effects on human. How can outdoor air pollution be reduced? 2+6+3=11

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