

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 (Backlog) / 14 (2014 onwards)

Time : 2 hours

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

1. Write one-word substitution for the following : 1×5=5
 - (a) Very large ecological areas on the earth's surface with fauna and flora adapting to their environment
 - (b) The counter responses of pest populations or other biotic factors in the environment that diminish the effectiveness of pest management tactics

- (c) Species with productivity strategy to produce many offspring, each of whom is, comparatively, less likely to survive to adulthood
- (d) A biogeographic region with a significant reservoir of biodiversity that is rich in endemic species
- (e) The cycle in which nitrogen, carbon and other inorganic elements of the soil, atmosphere, etc., of a region are converted into the organic substances of animals or plants and released back into the environment

2. Distinguish between the following (any two) :

3×2=6

- (a) In-situ conservation and Ex-situ conservation
- (b) Renewable resource and Non-renewable resource
- (c) Primary productivity and Secondary productivity

3. Write short notes on the following (any two) :

4×2=8

- (a) IUCN status
- (b) Indian Wildlife Protection Act, 1972
- (c) Bioindicators

4. Justify the following with proper write-up (any two) : 4×2=8
- (a) Energy flow in an ecosystem always follows the law of thermodynamics.
 - (b) Judicious use of natural resources is mandatory.
 - (c) Greenhouse gases (GHG) is important.
 - (d) Remote sensing is a useful tool for biodiversity conservation.
5. What are biodiversity and 'hot spot' of biodiversity? Write about the values and threat to the biodiversity. Why is biodiversity rich in tropics? 2+6+2=10
6. Define ecosystem. Describe the structure and function of a typical ecosystem studied by you. 1+4+6=11

Or

Write short notes on the following : 4+4+3=11

- (a) Lotka-Volterra model
- (b) Threats to rhinoceros conservation in Assam
- (c) Photochemical smog
