

5 SEM TDC ZOO M 5**2016****(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

(Turn Over)

(2)

- (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) : $3 \times 2 = 6$
- (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) : $4 \times 2 = 8$
- (a) IUCN status
- (b) Indian Wildlife Protection Act, 1972
- (c) Bioindicators

(3)

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