

2018

ZOOLOGY – HONOURS

Third Paper

Unit-II

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer question No. 1 and **any two** questions from Group A and **any two** questions from Group B.

1. Answer **any five** questions : 2×5
- (a) What is Ramsar site? Name 2 such sites found in India.
 - (b) What are the characteristics of pioneer species?
 - (c) Give full forms of IUCN and CITES.
 - (d) Distinguish between dispersion and dispersal.
 - (e) When is a niche considered to be 'n' dimensional hypervolume.
 - (f) Name the two new hotspot sites of India.
 - (g) What is JFM?
 - (h) Define wetlands.

Group A

2. (a) What is carrying capacity? How is it used to frame the logistic model to introduce a mechanism of density dependent population regulation? 2+4
- (b) Draw and describe the Y-shaped model of energy flow. 3
- (c) What is a Guild? 1
3. (a) Explain the following (**any two**) : 3×2
- (i) 'No two species can coexist if they occupy the same niche.'
 - (ii) 'The species of climax community are K selected.'
 - (iii) 'Presence of a predator can modify the growth rate of a prey population.'
- (b) What is a survivorship curve? Comment on the survivorship curve of *Drosophila*. 1+3

Please Turn Over

4. (a) What is the basis of inhibition and tolerance model of Connell and Slatyer in ecological succession? 2+2
- (b) State the features of Detrivorous food chain. 2
- (c) Distiguish between Ecotone and Edge Effect. 2
- (d) What is Ecological Efficiency? 2
5. (a) A population in 2017 in an area was 1000. 22 individuals were born and 4 died in that year. Calculate the population growth rate. 3
- (b) What is biotic potential? 2
- (c) State three ecosystem services provided by Wetlands. 3
- (d) Discuss the causes of *El Nino*. 2

Group B

6. (a) What do you mean by social forestry and Agroforestry? 2
- (b) Distinguish between National Park and Wildlife Sanctuary. 2
- (c) What do you mean by Protected Area Network? 2
- (d) What do you mean by the terms— Core, Buffer, Transitional Zones and Wildlife Corridor? 4
7. (a) What is environmental auditing? Mention the steps involved in EIA. What do you mean by EIS? 2+4+1
- (b) Enlist the causes behind Man – elephant confict. 3
8. (a) Elucidate the steps taken by Government to protect the tigers in India. 2
- (b) Briefly narrate the objectives of Project Tiger. 2
- (c) Why is India considered to be a Megadiversity Country? 2
- (d) Define Critically Endangered and Vulnerable species. Given one example of each (Provide Scienfific names). 4
9. Write short notes on (*any two*) : 5+5
- (a) Arabari Model for conservation of Sal forest
- (b) Role of NGOs in Wildlife Conservation
- (c) Causes of Wildlife Depletion in India
- (d) Inter relationship between α , β and γ diversity
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