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**SUBJECT CODE NO: - FF-6567**  
**FACULTY OF SCIENCE AND TECHNOLOGY**  
**M.Sc. (Sem-I) (Zoology)**  
**Examination January-2023**  
**Ecology : Principles and Practices ZOO-103**

[Time: 3:00 Hours]

[Max. Marks:80]

Please check whether you have got the right question paper.

N. B

- 1) All questions carry equal marks
- 2) Draw well labelled diagram whenever necessary
- 3) Part –A is compulsory
- 4) Attempt any five questions from part B

**Part –A**

Q1 Attempt the following multiple choice questions.

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- 1) The natural place of an organism or community is known as
  - a) Niche
  - b) Habit
  - c) Biome
  - d) Habitat
- 2) The effect of interspecific competition on niches is to make them
  - a) Larger
  - b) smaller
  - c) more triangular
  - d) change location
- 3) Trophic levels in a food chain are formed by -----
  - a) Producer
  - b) consumers
  - c) decomposers
  - d) all of the above
- 4) Food chain always start with
  - a) Photosynthesis
  - b) Respiration
  - c) Nitrogenfixation
  - d) decay
- 5) Which forest have maximum diversity ?
  - a) Sub tropical rainforest
  - b) Coniferous forest
  - c) Tropical forest
  - d) Deciduous forest
- 6) Which of the following defines the separation of two different communities
  - a) Ecotone
  - b) Edge effect
  - c) Ecade
  - d) Resistance
- 7) Exponential growth occurs when there is ----
  - a) A great environmental resistance
  - b) No environmental resistance
  - c) No biotic potential
  - d) A fixed carrying capacity

- 8) Secondary consumers are ----  
 a) Green plants b) Herbivorous c) carnivorous d) All of these
- 9) Grassland biome for its maintenance requires  
 a) Periodic fire b) intensive grazing c) mowing d) all of the above
- 10) Energy flow in an -----  
 a) Biodiversity b) ecosystem c) diversity d) none

### Part –B

- Q2 Describe biotic and abiotic interaction in details. 12
- Q3 Explain biogeochemical cycles with their pattern & types. 12
- Q4 What is population ecology? Describe density & indices of relative abundance 12
- Q5 Describe physical and chemical properties of soil. 12
- Q6 Explain types, doses & effects of toxicants with suitable example 12
- Q7 Define biogeography? Describe western ghats & its significance 12
- Q8 Write notes on (any two) 12
- Energy audit
  - Environmental biotechnology
  - Ecological foot print