



M. Sc. ZOOLOGY

THIRD SEMESTER

ANIMAL ECOLOGY & WILDLIFE BIOLOGY

(MSZ-303B)

Duration: 3 Hrs.

Marks: 70

{ PART : A (OBJECTIVE) = 20 }
{ PART : B (DESCRIPTIVE) = 50 }

[PART B - Descriptive]

Duration: 2 Hrs. 40 Mins.

Marks: 50

[Answer question no. One (1) & any four (4) from the rest]

1. What is Community structure? How do we study community Ecology? Explain how abiotic factors influences Community structure? 2+3+5
=10
2. Discuss the background, objective, achievement and drawback of India Rhino vision 2020. 10
3. What is captive breeding? What are the objectives of captive breeding? Discuss the rules of captive breeding. 2+3+5
=10
4. What is species richness? Describe about the interspecific competition. Explain how it results in the extinction of a species. 2+3+5
=10
5. Explain Gause Principle? Mention the Predator-Prey relationship in a community. 5+5=10
6. Write the correct name of Forest conservation act of India. State the important sections of this act. Also mention the limitations of this act. 1+7+2
=10
7. Define techno-ecosystem. What are the different types of techno-ecosystems? Write the difference between techno-ecosystem and natural ecosystem. 2+4+4
=10
8. Write short notes - ½ x4=10
 - (a) Ecological footprint
 - (b) Wetland
 - (c) Gaia hypothesis
 - (d) Ecological pyramid

M SC ZOOLOGY
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Duration: 20 minutes

Marks – 20

(PART A - Objective Type)

I. Choose the correct answer:

1×14=14

1. Mineral cycles are
 - a) Gaseous cycle
 - b) Hydro cycle
 - c) Carbon cycle
 - d) Sedimentary cycle
2. The type of ecosystem with the highest mean plant productivity is
 - a) Tropical rain forest
 - b) Temperate grassland
 - c) Desert
 - d) Tundra
3. In an aquatic ecosystem, the trophic level equivalent to Cows in grassland is
 - a) Nekton
 - b) Zooplankton
 - c) Phytoplankton
 - d) Benthos
4. The age of pyramid with broad base indicates
 - a) High percentage of old individuals
 - b) Low percentage of young individuals
 - c) High percentage of young individuals
 - d) Low percentage of old individuals
5. The weight of living organisms in an ecosystem at a particular point of time is called
 - a) Energy
 - b) Production
 - c) Entropy
 - d) Biomass

6. Edaphic factors refers to

- a) Water b) Soil c) Relative Humidity d) Altitude

7. Eutrophic lakes are characterized by

- a) Low nutrients; high productivity b) Low nutrients; low productivity
c) High nutrients; high productivity d) High nutrients; low productivity

8. Tiger project in India was launched in

- a) 1971 b) 1972 c) 1973 d) 1974

9. Adjutant stork is included under _____ category of IUCN.

- a) Critically endangered b) endangered
c) extinct in the wild d) vulnerable

10. Which one of the following is the correct name of Environmental Act of India?

- (a) The Environment (Protection) Act, 1988
(b) The Environmental (Protection) Act, 1988
(c) The Environment (Protection) Act, 1986
(d) None of the above

11. How many biosphere reserves are there in Assam?

- (a) Two (b) Four (c) Six (d) None of the above

12. Which section of the Wildlife Act of India deals with the illegal hunting?

- (a) Section - 9 (b) Section - 11
(c) Section - 12 (d) None

13. The land of a Conservation Reserve belongs to -

- (a) Government (b) Villagers
(c) Both (d) None

14. When a resource is in short supply that used by one it is not available to the other is called

- (a) Interference (b) Exploitation
(c) Coexistence (d) None of the above

II. Fill up the blanks:

1 x 6 = 6

1. Species richness refers to _____ in a community.
2. _____ species have a strong influence on other species in the ecosystem.
3. Community is all of the populations in a given area where as _____ is the Specific home of an individual organism.
4. When a resource state is divided among two or more strong competitors then _____ occurs.
5. In nitrogen cycle the bacteria plays an important role in conversion of _____ into nitrates.
6. _____ biomes shows little rain, super dry air and typical plant vegetation.
