

M.Sc. ZOOLOGY
Third Semester
ANIMAL ECOLOGY & WILDLIFE BIOLOGY
(MSZ – 13 B)

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20
Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

Answer any *five* of the following questions:

1. What do you mean by the term “species interaction?” Describe the positive types of species interaction. Citing an example, discuss the effect of exotic competitors on local fauna. (2+5+3=10)
2. Define captive breeding. Brief detail about the various issues related to captive breeding. Write detail about the captive breeding initiative in Assam. (2+3+5=10)
3. Give a brief note on Ramsar Convention. Discuss the different wetland types in NE India and their role in biodiversity conservation. (2+3+5=10)
4. State the “Gaia hypothesis.” What are the types of stability? Write briefly on the stability of isolated populations. (4+3+3=10)
5. Describe the various Forest types of NE India. Discuss the impact of forest fragmentation on wildlife. (5+5=10)
6. Define biosphere reserve. Write the objectives and structure of a biosphere reserve. Mention the names of the biosphere reserve of Northeast India. (2+3+3+2=10)

7. Define "ecosystem". Briefly explain the single-channel energy flow and Y-shaped energy flow model. (4+3+3=10)
8. Define ecological niche. Write briefly on spatial, trophic and hypervolume niche along with diagram. (2+8=10)

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Duration: 20 minutes

Marks – 20

PART-A (Objective)

Time: 20 mins

Total Marks: 20

I. Answer the following:

1×20=20

1. "Project Tiger" was launched on _____ following the recommendation of _____. (2)
2. For wildlife preservation in the 7th plan, a complete list of all endangered animals and plants in the country is provided by _____.
 - a) Wikipedia
 - b) Red Data Book
 - c) Blue Data Book
 - d) None of the above
3. Which of the following is correctly matched?
 - a) Corbett Park – Cats
 - b) Gir Forest – Rhino
 - c) Kaziranga – Elephant
 - d) Runn of Kutch – Wild Ass
4. What is the major cause of diminishing wildlife numbers?
 - a) Cannibalism
 - b) Felling of trees
 - c) Habitat destruction
 - d) Paucity of drinking water
5. Ratios between energy flow at different points along the food chains when expressed on percentages are called-
 - a) Energy flow efficiency
 - b) Ecological efficiency
 - c) Relative ratio of energy flow
 - d) Ecological gradients
6. State whether true/false: (2)
 - a) Ecological footprint measures the average environmental impact of populations in different countries and areas.
 - b) Ecological niche is a vast area where many species live and interact with one another.
7. A boundary and transition area between two or more communities or biomes is called _____.

8. The occurrence of increased diversity and density of organisms at the ecotone is due to the effect of two distinct communities known as-
- a) Euesis b) Ecotypic effect
c) Edge effect d) Niche effect
9. The Wildlife Protection Act which provides for the protection of birds and animals was passed in _____.
10. Ecosystem Cybernetics is the science of _____ and _____ mechanisms in systems. (2)
11. Organisms that occupy the same ecological niche in different geographical area are called _____.
12. The number of links in a food chain depends upon the-
- a) Number of organisms in an ecosystem.
b) Number of producers in an ecosystem.
c) Length of food chain in an ecosystem.
d) Length of day.
13. Which of the following energy flow model is more practical than other?
- (a) Y-shaped or 2-Channel Energy Flow Model.
(b) Single Channel Energy Flow Model.
(c) Both.
(d) None.
14. The factors of soils are studied under the heads-
- a) Climate b) Biotic c) Topographic d) Edaphic
15. Relationships between the organisms of the same species is known as _____ relationships and that between two different species is known as _____ relationships. (2)
16. ^{AI}_____ is an obligatory positive interspecific interaction that is strongly beneficial to both species.
