

M.Sc. ZOOLOGY
Fourth Semester
ECOLOGY & WILDLIFE BIOLOGY
(MSZ – 402 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 four from Question no. 2 to 8
Question no. 1 is compulsory.

1. Write short notes on the following: (2.5×4=10)
 - a) Predator-Prey Interactions
 - b) Forest fragmentation
 - c) Canopy cover
 - d) Altruism
2. Explain about the systematic approach for Environmental Risk Assessment. Also mention the Purpose of performing ERA. (7+3=10)
3. Describe the various Environmental Monitoring methods. Focus on the major environmental problems of Northeast India and its cause. (5+5=10)
4. Elucidate the major Environmental Impact Assessment process. Mention the criteria for selection of Project location for Screening. (6+4=10)
5. What is home range of an animal? Write the difference between a territory and a home range. State how the animals advertise their territory? (2+2+6=10)
6. What is monitoring? What are the important roles of wildlife monitoring programs? What are the two aspects to the question of what to monitor? (2+6+2=10)
7. What do you mean by eco-development? Brief in detail about the initiatives undertaken for eco-development programmes with suitable examples. (2+8=10)

8. What are Zoonotic diseases? Name some Viral, Bacterial and Helminthic diseases found in Animals. Explain the preventive and control measure to be taken for Rabies. (1+4+5=10)

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Marks – 20

(PART A - Objective Type)

I. Choose the correct answer:

1×20=20

1. Which of the following is a diffuse source of freshwater eutrophication?
 - a) Industrial discharges
 - b) Direct addition in pisciculture
 - c) Atmospheric deposition
 - d) Sewage treatment plant discharges
2. Life cycle migration pattern is exhibited by–
 - a) Amphibia
 - b) Land reptiles
 - c) Birds
 - d) Mammals
3. Shannon index diversity is most widely used for–
 - a) Dominance Index
 - b) Statistics Index
 - c) Abundance Index
 - d) None of these
4. Sorensen's coefficient of community is used for–
 - a) Quantitative Sampling
 - b) Similarities of two samples
 - c) Ecological diversity
 - d) None of these
5. In which category of CITES, Asian elephants are listed?
 - a) Appendix-I
 - b) Appendix-II
 - c) Both
 - d) None of these
6. Encephalomyelitis is a–
 - a) Viral disease
 - b) Bacterial Disease
 - c) Fungal Disease
 - d) None of these
7. Toxoplasmosis leads to–
 - a) Circulatory disorders
 - b) Nervous disorders
 - c) Respiratory Disorders
 - d) All of these
8. The human-wildlife conflict includes–
 - a) Negative interaction
 - b) Positive interaction
 - c) Both
 - d) None
9. Which one of the following agency is not an enforcement agency?
 - a) Forest Department
 - b) State Police
 - c) RPF
 - d) None
10. Shahtoosh shawls are made from–
 - a) Yak
 - b) Chiru
 - c) Mithun
 - d) None
11. Biodiversity is highest in which type of the following forests?
 - a) Alpine meadows
 - b) Deciduous monsoon forests
 - c) Coniferous forests
 - d) Wet evergreen equatorial forests
12. Environmental Impact Assessment (EIA) is mandatory under which one of the following India legislations?
 - a) Indian Forest Act
 - b) Air (Prevention and Control of Pollution) Act
 - c) Wildlife Protection Act
 - d) Environment (Protection) Act, 1986.
13. Direct monitoring includes–
 - a) Electrochemical Analysis
 - b) Absorption Spectroscopy
 - c) Liquid Chromatography
 - d) All of the above
14. Ozone density is measured by–
 - a) UV absorption method
 - b) Chemiluminescence methods
 - c) Chromatography
 - d) None of these

