

1 (Sem-6/FYUGP) ZLG 61 MJ

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ZOOLOGY

(Major)

Paper : ZLG0600104

(Wildlife Conservation and Management)

Full Marks : 45

Time : 2 hours

*The figures in the margin indicate full marks
for the questions.*

1. Choose the correct option : 1×5=5

(a) Conservation ethics in wildlife
emphasizes

(i) overuse of natural resources

(ii) protection and sustainable use of
wildlife

(iii) commercial hunting

(iv) habitat destruction

(b) Which of the following is not an example
of *in situ* conservation?

(i) National Park

(ii) Wildlife Sanctuary

(iii) Zoo

(iv) Biosphere Reserve

(c) The footprint of a carnivorous animal like tiger or leopard is called

- (i) hoofmark
- (ii) pugmark
- (iii) burrow
- (iv) scat

(d) The number of Biosphere Reserves in India is

- (i) 14
- (ii) 15
- (iii) 11
- (iv) 18

(e) Which one of the following is correct as per Odum's definition of ecological succession?

- (i) It is predictable
- (ii) It is directional
- (iii) It results from the modifications of physical environment
- (iv) All of the above

2. Answer any *five* of the following : $2 \times 5 = 10$

(a) "The presence of wetland is very important for any wildlife sanctuary or national park." Justify the statement.

(b) Why is it important to regulate the introduction of invasive alien species?

(c) Write a short note on flagship species.

(d) What is an eco-sensitive zone (ESZ)?

(e) Differentiate between crude density and ecological density.

(f) Differentiate between wildlife preservation and wildlife conservation.

(g) Explain the S-shaped growth model of population study and state its prevailing conditions.

(h) Differentiate between GIS and remote sensing based on their working principles.

(i) What are renewable natural resources and why is their proper management necessary?

(j) How does the age structure influence the future growth of a wildlife population?

3. Answer any *four* of the following : $5 \times 4 = 20$

(a) Explain how the local belief systems in sacred groves help in sustainable conservation strategies.

(b) How will you differentiate a biosphere reserve from national park and wildlife sanctuaries?

(c) Explain the different types of population growth patterns with suitable examples.

- (d) Evaluate the impact of population growth and development on wildlife loss in India.
- (e) Write a short note on the different approaches used for ecological restoration.
- (f) Discuss the importance of Deepor Beel as a Ramsar Site in Assam with reference to biodiversity conservation.
- (g) Write a short note on the working principle of remote sensing.
- (h) Explain the total count, line transect and point count methods used in direct wildlife population surveys.

4. Answer any *one* of the following : 10

- (a) Define carrying capacity. Discuss its types and explain the major factors affecting carrying capacity in a wildlife habitat.
- (b) Discuss the concept and challenges of wildlife protected areas in India in relation to conservation and sustainable development.
- (c) Define ecological succession. Describe in detail the three models of ecological succession with suitable examples.
- (d) Explain the concept of biosphere reserve under the MAB programme drawing out the character, functions, criteria and its structural design.

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