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Your Roll No.....

Sr. No. of Question Paper : 8149

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Unique Paper Code : 2233520003

Name of the Paper : DSC-22: Faunal Conversation and Restoration

Name of the Course : **B.SC. (H) ZOOLOGY/B.SC (P) LIFE SCIENCE
THEORY - 2026**

Semester : VIII (NEP-UGCF)

Duration : 3 Hours

Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any five questions in all.
3. Question No. 1 is compulsory.

1(a) Define the following:

(1x5)

- (i) Rewilding
- (ii) Endangered species
- (iii) Ecosystem engineers
- (iv) Metapopulation
- (v) Biopiracy

(b) Differentiate between the following:

(2x5)

- (i) Habitat fragmentation and Habitat destruction
- (ii) Ecological economics and Environmental economics
- (iii) National park and Wildlife sanctuary
- (iv) Passive restoration and Active restoration
- (v) Biomagnification and Biodiversity

(c) Expand the following:

(1x5)

- (i) WWF
- (ii) NBWL
- (iii) CITES
- (iv) WCCB
- (v) IUCN

(d) Fill in the blanks:

(1x5)

- (i) In 2012, the IUCN Red List recognizes _____ distinct categories to classify species based on extinction risk.
- (ii) A wildlife _____ connects different protected areas to allow wildlife movement.
- (iii) A species that no longer exists is said to be _____.

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- (iv) Conservation outside natural habitats is called _____ conservation.
- (v) Wildlife forensics uses _____ protocols for species identification from feathers, bones, or hair.

(e) State whether the following statements are True or False: (1x5)

- (i) Climate change can influence the distribution of animal species.
- (ii) Local extinction means a species has disappeared globally.
- (iii) Sustainable development ignores wildlife conservation.
- (iv) Captive breeding programs can help increase populations of endangered species.
- (v) The Western Ghats are recognized as one of India's biodiversity hotspots.

2(a) Define "ecological restoration" and explain ecological restoration of any two major biotic communities. (9)

(c) What are the four main approaches that define the outcomes when considering the restoration of biological ecosystems? (6)

3. a) Mention the role of ecotoxicology in faunal conservation. (3)

(b) Explain major threats to biodiversity with special reference to:

- (i) Habitat destruction
- (ii) Invasive species
- (iii) Water Pollution
- (iv) Emerging contaminants (4x3)

4. (a) Define biodiversity? (1)

(b) Discuss the ethical and economic values of biodiversity. (3+3)

(c) Name any three faunal biodiversity hotspots of India. (3)

(d) Explain the major threats to any one faunal biodiversity hotspot of India. (5)

5(a) Give a detailed account of four major causes of wildlife decline. (8)

(b) Give a detailed account of various schedules of the Wildlife (Protection) Act, 1972. (7)

6. (a) Define bioprospecting. Name any two industries that benefit from bioprospecting. What are the ethical issues that are associated with bioprospecting. (1+1+3)

(b) Discuss the classification of protected areas and their significance in conservation. (7)

(c) Discuss the role of local communities in faunal conservation. (3)

7. Write short notes on **any three** of the following: (3x5)

- (i) Environmental guardians
- (ii) Sustainable utilization of natural resources
- (iii) Bioremediation in ecological restoration
- (iv) Application of DNA barcoding in wildlife forensics