



Progressive Education Society's
Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16
(Autonomous)
End Semester Examination: OCT/NOV 2024
Faculty: Science and Technology

Program: B.Sc. Biotech (04)

Semester: V

SET: - A

Program (Specific): Biotechnology

Course Type: Core

Class: T. Y. B. Sc.

Max. Marks: 35

Name of the Course: Biodiversity and systematics

Course Code: 24 BBT-506

Time: 2 Hr

Instructions to the candidate:

- 1) There are 4 sections in the question paper. Write each section on separate page.*
- 2) All Sections are compulsory.*
- 3) Figures to the right indicate full marks.*
- 4) Draw a well labelled diagram wherever necessary.*

SECTION: A

Q1) Answer any FIVE of the following (5/6)

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1. Define Biodiversity.
2. State any two examples of Biomimetic.
3. Define mutualism.
4. Name any two IUCN threat categories.
5. Explain opportunistic species.
6. Define genetic diversity.

SECTION: B

Q2) Answer any FIVE of the following (5/6)

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1. Give the formulae for Shannon's and Simpson's index.
2. What is the carrying capacity of an ecosystem?
3. Ecological stability is one of the aspects of biodiversity. Justify
4. Define any two behavioral patterns in animals.
5. State the importance of taxonomy.
6. Define insular habitat and give two examples.

SECTION: C

Q3) Answer any TWO of the following (2/4)

8

1. Explain major causes of extinction of species.
2. Write a note on biodiversity hotspots.
3. Explain population age structure.
4. Comment on Chipko Movement.

SECTION: D

Q4) Answer any TWO of the following (2/4)

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1. Describe the role of Forest Research Institute (FRI) and Zoological Survey of India (ZSI) in conservation of biodiversity.
2. Comment on various molecular tools in taxonomy or classification system.
3. Explain various conservation methods for *in-situ* and *ex-situ* conservations.
4. Write a note on CITES and TRAFFIC NGOs.