

Total No. of Questions : 5]

SEAT No. :

[Total No. of Pages : 2

**P1046**

**[5317] - 303**

**T.Y.B.Sc.**

**BIOTECHNOLOGY**

**Bb-333 : Biodiversity and Systematics**

**(2013 Pattern) (Semester - III)**

*Time : 3 Hours]*

*[Max. Marks : 80*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*
- 3) *Draw neat labelled diagrams.*

**Q1)** Answer the following in short (2-3 sentences)

**[10×2=20]**

- a) Define ecosystem diversity with example.
- b) What is biome?
- c) Define Habitat.
- d) Enlist any four organizations for conservation.
- e) Define allopatric speciation.
- f) What is imprinting?
- g) Define mutualism.
- h) What is systematics.
- i) Enlist Biodiversity databases.
- j) What is species evenness?

**Q2)** Write short notes on (any three):

**[3×5=15]**

- a) Population size and density.
- b) Rio conference.
- c) Prey - Predator dynamics.
- d) Three domain system of classification.

**P.T.O.**

**Q3)** Answer the following (any three):

**[3×5=15]**

- a) Explain ecological and genetic perspectives of biodiversity.
- b) Give an account of aquatic biome.
- c) Elucidate concept of niche with example.
- d) Describe types of population age structure.

**Q4)** a) Enlist various methods of Ex-situ conservation and describe any two of them with examples. **[8]**

b) Explain Mathematical model of logistic growth. **[7]**

OR

a) Mention in brief conservation policies, laws in India. **[8]**

b) Molecular techniques have brought revolution in classification. Justify. **[7]**

**Q5)** Write short notes on (any three)

**[3×5=15]**

- a) Sanctuaries.
- b) Biodiversity of domesticated animals.
- c) Innate behavior.
- d) Diversity Indices.

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