

Time – 3 hr.

Marks - 100

- N.B.**
1. All questions are compulsory.
 2. Draw neat labelled diagrams wherever necessary.
 3. All questions carry equal marks.

Q.1 Answer the following (any two)

20

- a. Write a detail account of Indian Botanic Garden, Howrah.
- b. Classify Combretaceae family giving reasons and mention the botanical names and economic importance of any two plants from the same family.
- c. Explain with neat labeled diagrams the morphological features of the family Labiatae, give its importance and floral formulae.
- d. Explain Hutchinson's system of classification with emphasis on its phylogenetic nature.

Q.2 Answer the following (any two)

20

- a. Citing suitable examples, describe the morphological and anatomical adaptations shown by Submerged Hydrophytes towards the aquatic ecosystem.
- b. Highlight the typical adaptations of Halophytes towards saline Ecosystem.
- c. What are Epiphytes? Describe the various ecological modifications observed in them with suitable examples.
- d. Compare external and internal features of Xerophytes and Mesophytes.

Q.3 Answer the following (any two)

20

- a. Describe the process of megasporogenesis in Angiosperm with the help of neat and labeled diagrams.
- b. What is double fertilization? Describe the process briefly.
- c. Explain the stages in the development of *Capsella* type of embryo.
- d. Describe the development of male Gametophyte in angiosperms.

Q.4 Answer the following (any two)

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- a. Giving suitable examples write a detailed note on any 2 phytogeographical regions of India studied by you.
- b. What is conservation of Biodiversity? What are the various approaches that can be adopted to conserve Biodiversity?
- c. Write notes on: Tropical Dry Evergreen Forests and Tropical Dry Deciduous Forests.
- d. Elaborate on the molecular methods used for assessing genetic diversity.