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) **20**

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.

Q.5 Write Short note on the following (any four) **20**

a. Economic importance of Family Euphorbiaceae

b. Merits of Hutchinson's system of classification

c. Sciophytes

d. Microspore tetrad

e. Oenothera embryo sac

f. Species Diversity

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