

SET A

Unique Paper Code: 32161501

Name of the Paper: Reproductive Biology of Angiosperms

Name of the Course: B.Sc.(H) Botany (LOCF)

Semester: V

Time: 3+1 Hours

Maximum Marks: 75

Attempt any four questions in all. All questions carry equal marks. Draw well-labelled diagrams wherever necessary.

Q.1. Describe the structure and function of a fully differentiated anther. Draw a well-labelled diagram of transverse section of a mature and un-dehiscid tetrasporangiate anther. (18.75)

Q. 2. Define self-incompatibility and what is its biological significance? Differentiate between GSI and SSI. Describe any five methods to overcome self-incompatibility in flowering plants. (18.75)

Q. 3. Define polyembryony and write a note on its classification. What are the causes of polyembryony? Discuss the practical value of polyembryony. (18.75)

Q. 4. Define an ovule. With the help of well-labelled diagrams explain the different types of ovules present among the flowering plants. Differentiate between crassinucellate and tenuinucellate types of ovule. (18.75)

Q.5. What is seed dispersal? Write its biological significance. Explain the various seed dispersal mechanisms with suitable examples.(18.75)

Q. 6. What is pollen viability? Discuss the different methods of pollen storage and the practical applications of pollen storage. Describe the factors that influence pollen germination and pollen tube growth under *in vitro* conditions. (18.75)