

2023
B.A./B.Sc.
Fifth Semester
CORE – 11
BOTANY
Course Code: BOC 5.11
(Reproductive Biology of Angiosperms)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Discuss the various genes that are responsible in the regulation of floral development. 14
2. Write notes on the following: 7×2=14
 - (a) Scope of reproductive biology
 - (b) Role of developmental factor in floral induction

UNIT-II

3. Explain the process of development of a male gametophyte with diagram. 14
4. Write notes on the following: 7×2=14
 - (a) Role of callose in microsporogenesis
 - (b) Pollen wall structure

UNIT-III

5. Explain the structure of an ovule and the types of ovules with diagram. 14
6. Describe the different types of embryo sac. 14

UNIT-IV

7. Explain the path of pollen tube from the stigma to the embryo sac. 2+5+5+2=14

8. Discuss on the basic concepts of self-incompatibility. Explain the genetic basis of self-incompatibility. 6+8=14

UNIT-V

9. What is suspensor? Explain the types of suspensor found in Orchidaceae and *Capsella*. 4+6+4=14
10. Write notes on the following: 7×2=14
- (a) In vivo nutrition of embryo
 - (b) Embryo development in *Paeonia*
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