



WEST BENGAL STATE UNIVERSITY  
B.Sc. Honours 5th Semester Examination, 2020, held in 2021



**BOTACOR11T-BOTANY (CC11)**

**REPRODUCTIVE BIOLOGY OF ANGIOSPERMS**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words as far as practicable  
All symbols are of usual significance.*

1. Answer **all** the following questions briefly: 1×6 = 6
- (a) What is P-tapetum?
  - (b) What is herkogamy?
  - (c) What is heteromorphic self-incompatibility?
  - (d) What is floral evocation?
  - (e) Write the name of family or genus showing compound pollen.
  - (f) Why the ovule is called megasporangium?
2. Answer any **eight** questions from the following: 3×8 = 24
- (a) Describe in brief the process of parasexual hybridization. 3
  - (b) Write a short note on mosaic endosperm. 3
  - (c) Describe in brief the embryo-endosperm relationship. 3
  - (d) What is self-incompatibility? Differentiate between GSI and SSI. 1+2
  - (e) Explain with examples the structural modifications of seeds for dispersal by animals. 3
  - (f) Explain briefly the terms apospory and apogamy. 3
  - (g) What is meant by ABC model of flower development? 3
  - (h) Explain the significance of callose deposition during microsporogenesis. 3
  - (i) Define double fertilization and state its significance. 1½ + 1½
  - (j) Draw and label the different parts of an anatropous ovule. 3
  - (k) Write in brief about induced polyembryony. 3
  - (l) Enumerate various apomictic methods found in angiosperms. 3

3. Answer any *two* questions from the following: 5×2 = 10
- (a) What is endosperm? Mention their types with examples. What is cleavage polyembryony? 1+3+1
- (b) Illustrate the successive stages of development of a typical female gametophyte in angiosperms (labelled diagrams only). 5
- (c) Write briefly on the genetic basis of incompatibility. Whether self-pollination is possible in dioecious species?—Justify. 2+3
- (d) What is pollination? Discuss the contrivances of cross-pollination. 2+3

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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