



বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY

Question Paper

B.Sc. Honours Examinations 2021

(Under CBCS Pattern)

Semester - V

Subject: BOTANY

Paper : C 11-T & P

Reproductive Biology of Angiosperms

Full Marks : 60 (Theory-40 + Practical-20)

Time : 3 Hours

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

[Theory]

Group - A

- A. Answer any **three** questions from the followings : 12×3=36
1. 'Flower is a modified shoot—explain. What is meant by self incompatibility? Write down the significance of self incompatibility. 6+2+4
 2. What are self and cross pollinations? Write about various contrivances of cross pollination. Briefly describe the double fertilization process in angiosperms. 4+4+4
 3. Draw and describe a typical embryo sac of an Angiosperm. Discuss various types of embryo sac found in Angiosperms. 6+6

4. Draw and describe the different stages of microgametogenesis. Illustrate the ultrastructure of a mature embryo sac. 6+6
5. What is palynology? Discuss the scope of palynology in modern science. 2+10
6. Write notes on : (i) Bisporic and Tetrasporic—megasporogenesis, (ii) Hybrid and Cybird, (iii) NPC system of classification. 4+4+4

Group - B

- B. Answer any **two** questions from the followings : 2×2=4
1. Give the full form of MMC and PMC.
 2. Mention two mechanisms for wind dispersal of seeds.
 3. What is GSI?
 4. What is pollinia? Where is it found?

[Practical]

Group - A

- A. Answer any **one** question from the following : 15×1=15
1. Write the pollen viability test. 15
(Requisition 3, Procedure 7, comment on expected results 5)
 2. How the percentage of pollen germination in sugar media is calculated ? 15
(Requisition 3, Procedure 7, comment on expected result 5)
 3. Give identifying characters of different types of ovules with suitable diagrams. 8+7

Group - B

- B. Answer any **one** question from the following : 5×1=5
1. Give identifying characters of amoeboid tapetum and caruncle with suitable diagrams. 5
 2. Write down the identifying characters of (i) pollinia, (ii) polyad 2½+2½

3. Write down the different types of pollen apertures with suitable diagram. 5

Or,

(a) Practical note book 2

(b) Viva-voce 3

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