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RNLKWC/B.Sc.-CBCS/VS/BOT/H/C11T/22

2022

BOTANY

[HONOURS]

(CBCS)

(B.Sc. Fifth Semester End Examinations-2022)

PAPER-C11T

[Reproductive Biology of Angiosperms]

Full Marks: 40

Time: 02 Hrs

*The figures in the right hand margin indicate marks
Candidates are required to give their answers in their own words as
far as practicable*

Illustrate the answers wherever necessary

Group - A

1. Answer any five of the following: 5x2=10
- a) What is the function of suspensor?
 - b) What are cybrids? Give an example. 1-1
 - c) What is the significance of double fertilization?
 - d) What is the role played by caruncle?
 - e) How will you test pollen viability?
 - f) What are the factors for flower induction?
 - g) Write the contributions of J. Heslop-Harrison
 - h) Define GSI.

(2)

Group – B

2. Answer any four of the following: **4x5=20**
3. Write a short note on molecular aspects of flower development.
4. What are the different methods to overcome self-incompatibility in plants? Give suitable examples. 3+2
5. What are the different types of apomixis? What are the causes of polyembryony? 2+3
6. Distinguish between the development pattern of dicot and monocot embryo with suitable diagrams.
7. Differentiate between helobial and cellular type of endosperm with suitable examples.
8. Discuss briefly megagametogenesis (*Polygonum* type) with suitable diagrams. 3+2

Group – C

9. Answer any one of the followings: **1x10=10**
- a) Discuss the embryo development in *Paeonia* with suitable diagrams. Mention the modifications of stigma surfaces in plants. Draw and label the ultrastructure of mature embryo sac. (4+1)+2+3
- b) Discuss briefly the structure of anther wall with suitable diagrams. What are the limitations of NPC classification system. What is MGU? What is the role played by tapetum? What is callose? (3-1)+2-1+2+1