Reg. No ....   Name **22P365**

M. Sc. DEGREE END SEMESTER EXAMINATION : OCTOBER 2022
SEMESTER 3 : BOTANY
COURSE : **21P3BOTT12 : PLANT REPRODUCTIVE BIOLOGY, PALYNOLOGY AND PLANT BREEDING**
(For Regular - 2021 Admission)

Duration : Three Hours   Max. Weights: 30

PART A
Answer any 8 questions   **Weight: 1**

1.	What is meant by melisso-palynology?	()
2.	What is allogamy?	(U)
3.	Briefly explain different types of endosperm.	(U)
4.	Explain the role of mutation in plant breeding.	(U)
5.	Explain genetic variability and its role in plant breeding.	(U)
6.	What is melittophily?	(U)
7.	Briefly describe the importance of pollen shape in its identification.	()
8.	Write a short note on hypersensitivity.	(E)
9.	What IS honey stomach and pollen basket?	(A)
10.	With the help of an example explain dioecious condition.	(U)

(1 x 8 = 8)

PART B
Answer any 6 questions   **Weights: 2**

11.	Explain the genetic mechanism of self-incompatibility and its significances.	(U)
12.	Briefly explain the Indian contributions towards plant reproductive biology.	(U)
13.	What are the tools and methods used for pollen sampling?	()
14.	Explain the method of hybridization.	(U)
15.	Explain the important achievements of mutation breeding.	(U)
16.	Explain and illustrate common exine ornamentation patterns in pollen grains.	(U)
17.	Explain various pollination adaptations of any bee and bird pollinator that act as effective pollinators of angiosperms.	(U)
18.	Discuss the importance of Prof. K R Shivanna's contributions to plant reproductive biology.	(U)

(2 x 6 = 12)

PART C
Answer any 2 questions   **Weights: 5**

19.	Explain the methods of breeding for disease resistance.	(A)
20.	Discuss the genetic, biochemical and physiological mechanisms of self-incompatibility in angiosperms.	(U)

21. Why *r* values and pollen coefficients are inevitable in palynological studies? (U)

22. 'Plant animal interaction is a mutually benefiting process to achieve effective pollination in flowering plant's, Discuss. (E)

(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;