

**P.G. Semester-II Examination, 2023****BOTANY**

Course ID : 21353

Course Code : BOT203C(T)

**Course Title : Morphology, Palynology and  
Reproductive Biology**

Time : 2 Hours

Full Marks : 30

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in  
their own words as far as practicable.***GROUP-A****(Morphology and Reproductive Biology)**1. Answer any **two** of the following questions :

1×2=2

- What do you mean by triple fusion in angiospermic plant?
- Differentiate between phylloclade and cladode.
- What do you mean by closed and open style?
- Define parietal placentation with example.

2. Answer any **one** of the following: 5×1=5

- Write a brief note on ontogeny of carpel. 5
- Describe with suitable diagram and example the homology of defensive organs which are analogous to thorns and spines. 5

3. Answer any **one** of the following: 8×1=8

- Mention the post-fertilization changes in the ovule of angiosperm. Describe the embryo development in monocot plant with diagram. 2+6=8
- Describe the origin of inflorescences with suitable diagrams. 6+2=8

**GROUP-B****(Palynology)**4. Answer any **two** of the following: 1×2=2

- What do you mean by anthesis?
- What is perine?
- Distinguish between oblate and prolate type of pollen grain in angiosperm.
- Name the smallest and largest pollen grain in angiosperm.

5. Answer any **one** of the following: 5×1=5

- Write notes on Mellisopalynology. 5
- Describe NPC system of classification based on the apertures of pollen grain. 5

6. Answer any **one** of the following: 8×1=8

- Describe the premexine model for pollen wall formation with suitable diagrams. 6+2=8
- Describe the different types of sculptures of sporoderm with diagrams. 6+2=8