

2022

BOTANY

[GENERIC]

(B.Sc. Fourth Semester End Examination-2022)

PAPER-GE4T

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

PLANT SYSTEMATICS

1. **Answer any five out of eight** **5x2=10**
- a) State the differences between open collateral and closed collateral vascular bundle.
 - b) What do you mean annual ring and orthotropus ovule.
 - c) What are tyloses? Give diagrams.
 - d) What are the different components of xylem?
 - e) Write the name of different types of sclerides cells with their respective location.
 - f) What is ring porous wood? Define double fertilization
 - g) Define apospory and agamospermy.
 - h) What is Tunica crops theory?

(2)

2. Answer any four out of six

4 x 5=20

- a) State the differences between intercalary meristem and lateral meristems (5)
- b) State the characters and functions of meristematic tissue. (5)
- c) How cross pollination is advantageous. (5)
- d) Draw and describe the structure of mature embryo. (5)
- e) Write short notes on
 - i) double fertilization (2.5)
 - ii) Seed structure-appendages. (2.5)
- f) Draw and describe different types of ovules. (5)

3. Answer any one out of two

10x1=10

- a) Write the components of phloem with their respective function.
- b) Discuss different types of endosperm. What is cleavage polyembryony 3+5+2
- c) Give a comparative account of adaptive features of xerophytes and hydrophytes. What do you mean by heartwood and sapwood? Distinguish between the internal structure of dicot & monocot stem with suitable sketches. 4+2+4