

D 13101

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Name.....

Reg. No.....

**FIRST SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, NOVEMBER 2021**

(CBCSS)

Botany

**BOT 1C 03—ANGIOSPERM ANATOMY, ANGIOSPERM EMBRIOLOGY, PALYNOLOGY
AND LAB TECHNIQUE**

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

General Instructions

1. *In cases where choices are provided, students can attend **all** questions in each section.*
2. *The minimum number of questions to be attended from the Section / Part shall remain the same.*
3. *The instruction if any, to attend a minimum number of questions from each sub section / sub part / sub division may be ignored.*
4. *There will be an overall ceiling for each Section / Part that is equivalent to the maximum weightage of the Section / Part.*

Part A

*Answer any **four** questions.
Each question carries 2 weightage.*

1. Explain pollen culture and its significance.
2. Differentiate dicot and monocot embryos with diagrams.
3. Explain maceration and its significance.
4. Give an account on the common fixatives used in microtechnique.
5. Describe the preparation of specimen and working of sledge microtome.
6. What is Histochemistry ? What are the histochemical tests to localise plant metabolites ?
7. Write a note on activity of cambium in the secondary thickening of root.

(4 × 2 = 8 weightage)

Turn over

Part B

*Answer any four questions.
Each question carries 3 weightage.*

8. Give an account on the evolution in the anatomy of nodes.
9. Write a general account on wood anatomy. Add a note on the properties.
10. What is Palynology ? Explain the significance.
11. Differentiate microsporogenesis and megasporogenesis.
12. Describe the anomalous secondary growth in an arborescent monocot.
13. Give an account on mounting media. Write the composition of any one.
14. Explain the process of dehydration and clearing.

(4 × 3 = 12 weightage)

Part C

*Answer any two questions.
Each question carries 5 weightage.*

15. With neat diagrams explain embryo culture. How is it different from ovule culture ?
16. What is Polyembryony ? Explain its classification and applications.
17. Describe seedling anatomy with diagrams and examples.
18. Enumerate the microtechnique steps involved in the preparation of a permanent section.

(2 × 5 = 10 weightage)