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# FIRST SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY) EXAMINATION, NOVEMBER 2023

(CBCSS)

Botany

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

(2019 Admission onwards)

Time: Three Hours

Maximum: 30 Weightage

### Part A

Answer any four questions.

Each question carries 2 weightage.

- 1. What is plasmodesmata? What is its function?
- 2. Distinguish between hypocotyl and epicotyl. Which is the first part?
- 3. Describe the phenomenon behind the production of seedless fruits.
- 4. What do you mean by heterosis?
- 5. What is the principle of microscopy?
- Define melittopalynology.
- 7. Write a note on vital staining?

 $(4 \times 2 = 8 \text{ weightage})$ 

#### Part B

Answer any four questions.

Each question carries 3 weightage.

- 8. Describe the characteristic features that distinguish primary and secondary cell wall.
- 9. Pollen pistil interaction has a specific role in fertilization, Explain.
- 10. Describe the structure of a monocot embryo.

Turn over

- 11. Describe the composition, method of preparation and uses of any two fixatives
- 12. Briefly explain the different nodal patterns in angiosperms.
- 13. Based on the nature of nuclear division the endosperm formation is different. Comment
- 14. Describe the structure of a dithecous anther with a labelled sketch.

 $(4 \times 3 = 12)$ 

## Part C

# Answer any two questions.

Each question carries 5 weightage

- 15. Do vascular cambium and cork cambium have any role in increasing the girth Explain?
- 16. Palynology has a significant role in taxonomy Explain.
- 17. Explain the mode of fertilization and embryogenesis in angiosperms with suitable ske
- 18. Discuss the significance of anatomical characters in solving taxonomic problems.

 $(2 \times 5 = 10)$