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| Reg. No |
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| Name |

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, NOVEMBER 2022

Fourth Semester

Core Course—ANATOMY AND REPRODUCTIVE BOTANY OF ANGIOSPERMS

[Common for Botany Model and Model II]

(2013—2016 Admissions)

Time: Three Hours

Maximum Marks: 60

Part A

Answer all questions.
Each question carries 1 mark.

- 1. Define ecological anatomy.
- 2. List the functions of plasmodesmata.
- 3. What are pith rays? Mention its function.
- 4. What is a hard wood?
- 5. What is Rhytidome?
- 6. What is Incompatibility?
- 7. What is a marginal placentation?
- 8. What is Apomixis?

 $(8 \times 1 = 8)$

Part B

Answer any **six** questions. Each question carries 2 marks.

- 9. Comment on 'evolutionary trend in plant anatomy'.
- 10. List the different types of cell wall thickening.
- 11. Mention any *four* metabolic byproducts.
- 12. Explain features of internal secretory tissues.

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- 13. Mention the functions of cambium.
- 14. What are Knots? Mention different types of it.
- 15. What is Periderm? How does it formed?
- 16. What is an emophilous pollination? Mention any two adaptations.
- 17. What is Dichogamy?
- 18. Describe the parts of a mature seed.

 $(6 \times 2 = 12)$

Part C

Answer any **four** questions. Each question carries 4 marks.

- 19. Describe submicroscopic structure of cell wall.
- 20. Give a brief account on various theories associated with shoot apex.
- 21. Comment on 'defects and seasoning of wood'.
- 22. Briefly describe pollen stigma interaction.
- 23. Compare the development of endosperm in monocots and dicots.
- 24. Explain the development of male gametophyte in angiosperms.

 $(4 \times 4 = 16)$

Part D

Answer any **two** questions. Each question carries 12 marks.

- 25. With a labelled diagram, explain epidermal tissue system in plants.
- 26. Illustrate anomalous secondary growth in Bougainvillea stem.
- 27. Illustrate megasporogenesis in detail.
- 28. Give a concise account of different types of dry indehiscent fruits.

 $(2 \times 12 = 24)$

