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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester B.Sc Zoology Degree Examination, November 2020 BBT1C01 –Angiosperm Anatomy & Micro technique

(2020 Admission onwards)

Time: 2 hours

Max. Marks: 60

SECTION A

(Answer all questions, each question carries 2 marks. Ceiling: 20 Marks)

- 1. Differentiate diffuse porous and ring porous wood
- 2. What are the differences between protoxylem and metaxylem
- 3. How you will differentiate tracheids from vessels
- 4. What are the functions of collenchyma
- 5. What are companion cells? What is its function?
- 6. What is bark?
- 7. What is meant by the numerical aperture of a microscope? What is its importance?
- 8. What is dehydration? Name a dehydrating agent
- 9. What is canada balsam? What is its use?
- 10. What is condenser lens system?
- 11. Describe the vascular system in dicot leaf
- 12. What are vascular rays? What is its function?

SECTION B

(Answer all questions, each question carries 5 marks. Ceiling: 30 Marks)

- 13. Explain the formation of growth rings
- 14. Explain different types of secretory tissues in plants
- 15. Explain the working of an electron microscope
- 16. What is meant by killing and fixation? Explain the composition of any two killing and fixing fluids
- 17. Explain the differences between monocot and dicot stem
- 18. Explain different types of vascular bundles
- 19. What are stains? Explain different types of stains and their use

SECTION C

(Answer any one question, each question carries 10 marks. 1x10 = 10 Marks)

- 20. Explain the secondary growth in Tinospora root with suitable diagrams
- 21. Explain intra stelar and extra stelar thickening in a dicot stem with diagrams

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester B.Sc Botany Degree Examination, November 2020 BBT1B01 -Angiosperm Anatomy, Reproductive Botany & Palynology

(2020 Admission onwards)

Time: 2 hours

Max. Marks: 60

SECTION A

(Answer all questions, each question carries 2 marks. Ceiling: 20 Marks)

- 1. What are cystoliths?
- 2. Write four important features of vascular bundle of a monocot stem.
- 3. Give an account of laticifers.
- 4. What are passage cells? What is its significance?
- 5. Differentiate cleistogamy with that of homogamy.
- 6. Distinguish between sapwood and heart wood.
- 7. What is endothecium?
- 8. What are bulliform cells? What is its function?
- 9. What is syngamy?
- 10. Name any four cell types derived from fusiform initials.
- 11. Give an account of structure of lenticel.
- 12. Write the names of two diseases caused due to pollen allergy.

SECTION B

(Answer all questions, each question carries 5 marks. Ceiling: 30 Marks)

- 13. Give an account of ultrastructure of cell wall.
- 14. Describe the internal structure of monocot stem.
- 15. Describe the tetrasporic type embryosac. Compare it with monosporic type.
- 16. Explain the process of secondary growth in dicot root.
- 17. Describe the structure of a monocot embryo.
- 18. Give an account of various theories of organization of apical meristem.
- 19. With sketches give a brief account of different types of ovules.

SECTION C

(Answer any one question, each question carries 10 marks. 1x10 = 10 Marks)

- 20. With the help of a labeled sketch describe the anomalous secondary growth in *Boerhaavia* stem.
- 21. Give a detailed account of Megasporogenesis with illustrations.