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(Pages: 2)

Reg. No:.....

Name

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester B.Sc Degree Examination, November 2018 BBOT1B01 - Angiosperm Anatomy

(2016 Admission onwards)

Max. Time: 3 hours

Max. Marks: 80

Part A

I. Answer all questions

- Non porous wood of is technically known as soft wood.
- 2. The barrel shaped body that appears in the equator of the cell during cytokinesis is known as
- 3. The protein part of aleurone grain is called
- 4.proposed Korper- kappe theory.
- 5. is a Gymnosperm with xylem vessels.
- 6. The hypodermis of a dicot stem is made up of
- 7. Balloon-like structures that grow out from parenchyma cells into the lumen of xylem vessels are called
- 8. In Citrus the oil glands aretype
- 9. Concentric vascular bundles with xylem in the centre are known as
- 10. Lateral roots originate from the

(10x1=10 marks)

Part B

II. Answer all questions

- 11. Draw and label a bordered pit.
- 12. Name the resinous product obtained from Abies balsamia
- 13. Distinguish between apposition and intussusception
- 14. Comment on nodal anatomy.
- 15. Distinguish between articulated and non articulated laticifers.
- 16. What is lignification? What are the common patterns of lignifications in tracheary elements?
- 17. What is casparian thickening? Mention its functions.
- 18. Discuss lenticels formation.
- 19. Distinguish between fusiform and ray initials.
- 20. Distinguish between heart wood and sap wood

 $(10 \times 2 = 20 \text{ marks})$

Part C

III. Answer any six questions

- 21. Draw and label an isobilateral leaf?
- 22. Define meristem. Mention different classifications of meristem.
- 23. With the help of diagrams describe different types of stomata.
- 24. Give a brief account on phloem
- 25. Discuss stelar secondary growth in dicot root.
- 26. Give an illustration on non-nitrogenous waste materials.
- 27. Give a brief description on external secretary structures.
- 28. Explain the anomalous secondary structure of Bignonia.

(6 x 5=30 marks)

Part D

IV. Answer any two of the following

- 29. With the help of neat labeled sketches give detailed account on Xylem.
- 30. With the help of cellular diagram explain anomalous secondary growth in Boerhaavia
- 31. Give a detailed account on simple permanent tissues.

 $(2 \times 10 = 20 \text{ Marks})$

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(Pages: 2)

Reg. No:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester B.Sc Degree Examination, November 2018 BBOT1C01 - Angiosperm Anatomy & Microtechnique

(2016 Admission onwards)

Max. Time: 3 hours

Max. Marks: 64

Part A

I. Answer all questions

- 1. are slender and hair-like sclereids.
- 2. is a pteridophyte with vessel.
- 3. is a living thin walled tissue.
- 4. Specialized cells seen in association with the leaf veins of leguminous plants are known
- 5. In Eucalyptus oil glands are type.
- 6. Gymnosperm wood is technically known as
- 7. constitutes all the living tissues and the dead cells outside the vascular cambium.
- 8. meristem is responsible for growth in thickness.
- 9. Trade name of the aqueous solution of 40% formaldehyde is
- 10. is an example for a fixative.

(10x1=10 marks)

Part B

II. Answer any seven questions

- 11. Draw and label T S of lenticel.
- 12. Give the structure of digestive glands of Nepenthes?
- 13. Comment on growth rings.
- 14. Distinguish between latex cells and latex vessels.
- 15. Distinguish between fusiform and ray initials.
- 16. What is quiescent centre? Mention its function
- 17. Comment on duramen.
- 18. Name a stain used for cytological preparations. How will you prepare it?
- 19. What is numerical aperture? How is it useful in microscopy?
- 20. What is dehydration? Name any two reagents used for it.

 $(7 \times 2=14 \text{ marks})$

Part C

III. Answer any six questions

- 21. Give an account on different types of vascular bundles.
- 22. Using an appropriate theory give an account on organization of shoot apex.
- 23. Describe the internal structure of isobilateral leaf.
- 24. Give a brief account on tracheary elements.
- 25. Briefly describe collenchyma
- 26. Distinguish between dicot and monocot stem.
- 27. What is stele? Describe the stele of monocot root.
- 28. Write a critical account on epidermal tissue system.

(6 x 4=24 marks)

Part D

IV. Answer any two of the following

- 29. With the help of neat labeled sketches give detailed account on phloem.
- 30. Give an illustration on normal secondary growth in dicot root.
- 31. Give a detailed account on Electron microscopy.

(2 x 8=16marks)