



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)

Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

Master's Degree Examination – June / July 2021

II Semester

Class : I PG
Major : Botany

Time : 3 Hours
Max. Marks : 100

20MBOC08 Anatomy of Angiosperms

Part A

10 x 1 = 10

Choose the Correct Answer

- Resolving power of a microscope depends upon..... CO6K4
 - The focal length and aperture of the eye lens
 - The focal length and objective of the eye lens
 - The aperture of the objective and the eye lens
 - The wavelength of light illuminating the object
- Which of the following microscopy techniques relies on the specimen interfering with the wavelength of light to produce a high contrast image without the need for dyes or any damage to the sample? CO6K1
 - Conventional bright field light microscopy
 - Phase contrast microscopy
 - Electron microscopy
 - Fluorescence microscopy
- Tunica corpus theory is connected with..... CO2K4
 - Root apex
 - Root cap
 - Shoot apex
 - Secondary growth
- Death of protoplasm is a pre-requisite for a vital function like CO2K2
 - Transport of sap
 - Transport of food
 - absorption of water
 - Gaseous exchange
- The age of the tree can be determined by CO3K1
 - Measuring its diameter
 - Counting the number of annual rings
 - Counting the number of leaves
 - Finding out the number of branches
- Bicollateral bundles are found in the stem of CO4K3
 - Pumpkin
 - Sunflower
 - Dracaena
 - Gram
- Hypodermis of monocot stem is made of..... CO4K3
 - Sclerenchymatous cells
 - Parenchymatous cells
 - Collenchymatic cells
 - Chlorenchymatic cells
- Wound healing in plants is initiated by CO3K4
 - Apical meristem
 - Lateral meristem
 - Secondary meristem
 - Intercalary meristem
- Secondary growth is due to CO5K5
 - Cambium
 - Apical meristem
 - Intercalary meristem
 - Parenchyma
- The wood that grows in the winter due to inactive cambium is called as..... CO5K5
 - Early wood
 - Heart wood
 - Sapwood
 - Autumn wood

Part B**5 x 6 = 30****Answer ALL questions****Each answer should not exceed 400 words or two pages**

- 11.a. Write a principal and organization of Fluorescent microscope. CO6K6
(or)
- 11.b. Give an account on microphotography. CO6K1
- 12.a. Compare Collenchyma and Sclerenchyma tissues CO2K2
(or)
- 12.b. With neat diagram explain elements of phloem. CO2K4
- 13.a. Write a short note on Sap wood and Heart wood. CO3K3
(or)
- 13.b. What are Tyloses? Mention its significance. CO3K5
- 14.a. Comment on interfascicular and intra fascicular cambium CO4K5
(or)
- 14.b. Draw a neat labelled sketch of Monocot root and Dicot root. CO4K2
- 15.a. Explain secondary growth in Monocot stem. CO5K3
(or)
- 15.b. Write a short note on development of cork. CO5K6

Part C**5 x 12 = 60****Answer ALL questions****Each answer should not exceed 800 words or four pages**

- 16.a. Explain in detail the principle and functions of TEM and SEM. CO6K3
(or)
- 16.b. List out the applications of micrometry and microtomy. CO6K3
- 17.a. What is apical meristem? Discuss the histological organisation of shoot and root apical meristem. CO2K1
(or)
- 17.b. Give a detailed account on secretory tissues. CO2K2
- 18.a. Explain the structure and functions of ground tissue system. CO3K5
(or)
- 18.b. Explain structure, types and functions of vascular bundle. CO3K2
- 19.a. Write the features internal structure of Monocot and Dicot leaf with suitable diagram. CO4K4
(or)
- 19.b. What is cambium? Briefly explain the role of cambium in budding and grafting. CO4K5
- 20.a. Describe the anomalous secondary growth in *Bignoniastem* and *Dracaena* stem. CO5K1
(or)
- 20.b. Write an essay on ecological adaptations of Hydrophytes and Halophytes. CO5K4
