

[134]



Seat No. _____

No. of printed page: 02

SARDAR PATEL UNIVERSITY

B.Sc. 6th Semester

BOTANY: US06CBOT22

ANATOMY OF ANGIOSPERMS

Date: 05/04/2022

Time: 3:00 pm to 5:00 pm

Day: Tuesday

Total Marks: 70

Note: Draw neat and labeled diagrams wherever necessary.

1 Multiple Choice Questions (Attempt all)

(10)

1. _____ is an example of complex tissue.
(a) Parenchyma (b) Collenchyma (c) Xylem (d) None of the these
2. The embryo is developed from _____.
(a) Seed (b) Zygote (c) Cotyledons (d) All of the these
3. The dicotyledonous roots possess _____ vascular bundles.
(a) Exarch (b) Mesarch (c) Endarch (d) None of these
4. Which of the following is a principal food conducting tissue?
(a) Phloem (b) Xylem (c) Cortex (d) Endodermis
5. Balloon like outgrowth of parenchyma into the lumen of vessels is known as _____.
(a) Phellogen (b) Tunica (c) Histogen (d) Tyloses
6. Timber is _____.
(a) Secondary phloem (b) Secondary xylem (c) Cork (d) Secondary cortex
7. The vascular cambium in dicot is _____ meristem.
(a) Lateral (b) Apical (c) Secondary (d) Intercalary
8. In xerophytes the stomata are _____.
(a) Absent (b) Raised above the epidermis
(c) Sunken (d) At the level of epidermis
9. Epidermal hairs help in _____.
(a) Trapping insects (b) Reducing water loss
(c) Both a & b (d) None of these
10. Periderm occurs _____.
(a) Cork (b) Cork, cork cambium and secondary cortex
(c) Cambium (d) Secondary cortex



[PTO]

Q. 2 Fill in the blanks / True or False: (08)

- (1) The flexibility in plants is due to _____ tissue. (collenchyma/ sclerenchyma)
- (2) Radial vascular bundles are seen in _____. (stems/ roots)
- (3) Meristem producing the secondary xylem and secondary phloem is called _____. (vascular cambium/ cork cambium)
- (4) The term used to determine the age of tree by counting the annual rings is called _____. (dendrochronology/ pharmacognosy)
- (5) Apical meristem occurs at the apices of root and stem. (True/False)
- (6) Intercalary meristem results in secondary growth. (True/False)
- (7) Cuticle is secreted by endodermis. (True/False)
- (8) Heart wood helps in mechanical support. (True/False)

Q. 3 Short questions (Attempt any 10) (20)

1. Write the use of plant anatomy in forensics.
2. What is palynology?
3. Write polarity in plants.
4. What is Kranz anatomy?
5. Define hydathodes.
6. What is laticifer?
7. Define secondary growth.
8. What is axial system in plant?
9. Define tyloses.
10. Write about epicuticular wax.
11. Define stomata.
12. What is hydrophytes?



Q. 4 Long questions (Attempt any 4) (32)

- (1) Write definition and characteristics of meristematic tissue.
- (2) Describe application of plant anatomy in pharmacognosy.
- (3) Write note on phloem.
- (4) Describe Apical cell theory and Histogen theory.
- (5) Explain in detail secondary growth in dicot root.
- (6) Describe structure and function of vascular cambium.
- (7) Discuss various types of glandular trichomes with example.
- (8) Describe anatomical adaptations in xerophytes.