SEAT No._____ No. of Printed Pages : 2

[28]

SARDAR PATEL UNIVERSITY

B.Sc. EXAMINATION SEMESTER : VI CODE : US06CBOT22

SUBJECT : BOTANY (ANATOMY OF ANGIOSPERMS)

Date : 16/07/21 FRIDAY Time : 10.00 to 12.00 Total marks : 70

Q. 1 Multiple choice questions. **10**

1. Plant Anatomy is also known as :
   (a) Phytology (b) Phytobotany (c) Phytonomy (d) Phytotomy

2. A chemical substance which acts as cement and hardens the tissues
   (a) Lignin (b) Suberine (c) Cutin (d) Cuticle

3. Meristematic tissue that arises within the cortex is.....
   (a) Cork cambium (b) Pith meristem
   (c) Cortex cambium (d) Vascular cambium

4. Bordered pits are found in :
   (a) Sieve cells (b) Vessel wall (c) Companion cells (d) Sieve plate.

5. Phloem fibers are also called.....
   (a) Sieve tubes (b) Bast fibers (c) Sieve elements (d) Sieve cell

6. Annual rings are distinct in plants growing in :
   (a) Temperate regions (b) Tropical regions
   (c) Grassland (d) Arctic region

7. Ray initials which are .....elongated.
   (a) Vertically (b) Horizontally (c) Parallel (d) Cross

8. The tissue protects the internal tissues against excessive loss of water.
   (a) Pericycle (b) Epidermis (c) Endodermis (d)Cambium

9. Bulliform cells are present in.....
   (a) Monocot (b) Dicot (c) Gymnosperm (d) Pteridophyte

10. Which one of following is tubular, unicellular and un-branched ?
    (a) Root hairs (b) Scales (c) Trichomes (d) Bladders

Q. 2 (A) Fill in the blanks. 08

1. .....give buoyancy the plants to help them float. (Arenchyma/Prosenchyma)
2. Casperian strips are found in..... (Endodermis/Exodermis)
3. .....are aerating pores in the bark of plants.(Rhytidome/Lenticels)
4. The thickening present on the outer surface the secondary wall is..... (Adcrustation / Incrustation)

(B) True or False.

1. The flexibility in plants is due to permanent tissue collenchyma.
2. Tunica corpus theory is connected with Root cap.
3. In most angiosperms reaction wood is called compression wood
4. Sunken stomata are present in xerophytes.

Q. 3 Answer in short (Attempt any Ten). 20

1. Write the applications of Plant anatomy in Systematics.
2. What is Cytodifferentiation ?
3. What is Polarity in Plant ?
4. What is Pits and Plasmodesmata ?
5. What is Wall in growths and transfer cell ?
6. What is Endodermis and Exodermis ?
7. Differentiate : Sapwood and Heartwood.
8. What is Earlywood and Latewood ?
9. What is Dendrochonology ?
10. Define : Uni and multicellular trichomes.
11. Write the functions of cuticle.
12. Write the functions of Epidermis.

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

(1) Write the structure and development of Plant body.
(2) Write characteristics and definition of Meristematic tissue.
(3) Write short note on Xylem.
(4) Differentiate : Dicot and Monocot leaf.
(5) Write a short note on Periderm.
(6) Discuss the secondary growth in Dicot stem.
(7) Write a short note on Stomata.
(8) Discuss anatomical adaptation of Hydrophytes.

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