



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Second Semester – 2019

PAPER: Botany-II (Plant Systematic Anatomy & Development Theory)

Course Code: BOT-103 / BOT-12300 Part – I (Compulsory) Time: 15 Min. Marks: 10

Roll No. In Fig. ....

Roll No. In Words. ....

Signature of Supdt.: .....

**ATTEMPT THIS PAPER ON THIS QUESTION SHEET ONLY.**

**Division of marks is given in front of each question.**

**This Paper will be collected back after expiry of time limit mentioned above.**

**Q.1. Encircle the right answer cutting and overwriting is not allowed. (10x1=10)**

1- Chitinous wall is present in

- a) Plants
- b) Bacteria
- c) Fungi
- d) Protists

2- The system of plant classification proposed by Carolus Linnaeus was artificial because

- a) It was based on evolutionary relationship of plants
- b) It was based on similarities and differences in floral and other morphological characters only
- c) It took into account the physiological facts along with the morphological characters
- d) None of these

3- Synandrous condition is common in the family

- a) Umbelliferae
- b) Rosaceae
- c) Malvaceae
- d) Cucurbitaceae

4- Tunica Corpus Theory Is Connected With

- a) Root Apex
- b) Root Cap
- c) Shoot Apex
- d) Secondary Growth

5 Cork cambium and vascular cambium are

- a) Parts of secondary xylem and phloem
- b) Parts of Pericycle
- c) Lateral Meristem
- d) Apical Meristem

**P.T.O.**

6 - As a tree grows older, which of the following increases more rapidly in thickness?

- a) Heart Wood
- b) Sap Wood
- c) Phloem
- d) Cortex.

7- All the following plant groups possess phloem parenchyma except

- a) Dicots
- b) Monocots
- c) Gymnosperm
- d) Pteridophytes

8- Wood parenchyma is formed from

- a) Fusiform initials
- b) Ray initials
- c) Collenchymas cells
- d) All of these

9-  $\alpha$ -taxonomy deals with

- a) Classical Taxonomy
- b) Chemotaxonomy
- c) Phylogeny
- d) Experimental Taxonomy

10- Non-essential parts of flowers are

- a) Sepals and petals
- b) Sepals and carpels
- c) Sepals and gynoecium
- d) Androecium and gynoecium



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PAPER: Botany-II (Plant Systematic Anatomy & Development Theory)

Course Code: BOT-103 / BOT-12300 Part – II

Roll No. ....

Time: 2 Hrs. 45 Min. Marks: 50

**ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED**

**Q. 2: Answer the following questions**

**(20)**

1. Differentiate between racemose and cymose inflorescens
2. Differentiate between Apical and intercalary meristem
3. What are Paracytic and Diacytic stomata
4. Differentiate between fibrous tap roots and tuberous tap roots
5. Differentiate between Pinnate and Palmate compound leaves
6. Give botanical names of four plants of family Ranunculaceae
7. Give the composition of secondary wall
8. What is Collenchyma? Give its two functions
9. Differentiate between natural and artificial system of classification
10. What are Pits? Give their functions

**Q.3: Answer the following questions briefly**

**(30)**

1. Define classification. Discuss Benthum and Hooker system of classification in detail
2. What is meristem? Describe organization of cells in root apical meristem.
3. Describe the various types of simple tissues and their functions.

