

## UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Second Semester – Spring 2023

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

Course Code: BOT-103

## Roll No. .....

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. **Answer the following short questions:**  (15x2=30)

- 1. Define plant systematics and plant taxonomy.
- 2. Give the aims & objectives of plant classification.
- 3. Differentiate between parenchyma and collenchyma tissues
- 4. Why DNA is important to study phylogenetic analysis.
- 5. Define developmental embryology.
- 6. What is the difference between racemose and cymose inflorescence? Give examples.
- 7. Write the botanical names of five members of family Poaceae.
- 8. Write floral formula and floral diagram of Solanum nigrum L.
- 9. Compare Monocot and Dicot plants with examples.
- 10. What is the chemical composition of plant cell wall?
- 11. What is meristem? Give its characteristics features.
- 12. Differentiate between Xylem & Phloem in plants.
- 13. Differentiate between microsporophyte and microgametophyte of Capsella bursapastoris L.
- 14. What is endospore? Write down its function.
- 15. Write down role of vascular cambium in growth of plants.
- Q.2. Answer the following questions:

(3x10=30)

- 1. a) Define binomial nomenclature. Write down its principles and rules.
  - b) Discuss in detail about phylogenetic system of classification.
- 2. Write down detail note on development of Capsella bursa-pastoris.
- 3. Define simple tissues. Discuss their various types in detail.