

[Time: 2½ Hours]

[Marks:60]

Please check whether you have got the right question paper.

- N.B:**
1. All questions are **compulsory**
 2. **Figures** to the **right** indicate **full marks**.
 3. **Draw neat and labeled diagrams wherever necessary.**

- Q.1 Define meristem. Describe tunica corpus theory in detail. 12
OR
- Q.1 With reference to sensory tissue system explain optical sense organs. 12
- Q.2 Explain morphogenesis and organogenesis of leaf in plants. Add a note on phyllotaxy. 12
OR
- Q.2 What are floral meristems? Describe the floral development in *Arabidopsis*. 12
- Q.3 Write an account on pollen tube growth. Trace the path of pollen tube through pistil and add a note on its guidance 12
OR
- Q.3 Write an essay on vectors involved in pollination. 12
- Q.4 Describe pollen proteins? Explain how they act as human allergens. 12
OR
- Q.4 Give an account of ultra structural development of pollen wall. 12
- Q.5 Write short notes on **any three** of the following:
- 1 Histogen cell theory
 - 2 Transition of flowering
 - 3 Tactile sense organs
 - 4 Structure of embryo sac
 - 5 Embryo culture
 - 6 Pollen tetrad.