



*K. Sambal*

**Avinashilingam Institute for Home Science and Higher Education for Women**  
Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD (now MoE)  
Re-accredited with 'A++' Grade by NAAC. CGPA 3.65/4, Category I by UGC  
Coimbatore - 641 043, Tamil Nadu, India

**Continuous Internal Assessment Test I – February 2025**  
**Semester-II**

**Class: I PG**  
**Branch: Botany**

**Time: 2Hours**  
**Max. Marks: 60**

**23MBOC09 Embryology of Angiosperms**

**Course Outcomes**

- CO1:** Students gain knowledge on the reproductive phases of plant system  
**CO2:** Gain knowledge on origin and development of embryological structures  
**CO3:** Understand the fertilization process  
**CO4:** Gain knowledge on the process of embryo development  
**CO5:** Understand the development and role of endosperms

**Part A**

**6x1=6**

**Choose the correct answer**

1. Father of Indian Embryology CO1 K2  
(a) Nawaschin (b) Strasburger (c) J.C. Bose (d) Maheswari
2. Primexine is the \_\_\_\_ wall layer of pollen CO1 K3  
(a) primary (b) secondary (c) innermost (d) none of the above
3. The growth of pollen tube through integuments is known as CO2 K2  
(a) porogamy (b) mesogamy (c) chalazogamy (d) all the above
4. All 4 microspores arranged one above the other is called CO2 K2  
(a) tetrahedral (b) linear (c) decussate (d) isobilateral
5. The wall layer of anther which is epimeral is \_\_\_\_\_ CO3 K3  
(a) Endothecium (b) Epidermis (c) Middle layer (d) Tapetum
6. Embryo sac are found in CO3 K2  
(a) Embryo (b) Fruit (c) Seed (d) Ovule

**Part B**

**3x6=18**

**Answer ALL Questions**

**(Answer should not exceed 400 words or two pages)**

- 7a. With illustration describe the types of ovules CO1 K3  
(Or)
- 7b. Explain the types of tetrads with diagram CO1 K3
- 8a. Compare tapetum with integumentary tapetum CO2 K2  
(Or)
- 8b. Differentiate hypostase and epistase CO2 K3
- 9a. Give an account on bisporic embryosac CO2 K3  
(Or)
- 9b. Enumerate the development of the pollen wall CO3 K2

**Part C**

**3x12=36**

**Answer ALL Questions**

**(Answer should not exceed 800 words or four pages)**

- 10a. Explain the development of anther wall with illustrations CO1 K2  
(Or)
- 10b. Evaluate various steps in megasporogenesis CO1 K5
- 11a. Trace the development of secretory tapetum CO2 K3  
(Or)
- 11b. Explain the development of tetrasporic embryosac CO2 K2
- 12a. Give an account on fertilization CO3 K3  
(Or)
- 12b. Enumerate the course of the pollen tube until it reaches the embryosac CO3 K3

**Number of copies: 13**

**Staff in charge: Dr. A. Vijayalakshmi**