

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION MAY 2024
(Second Semester)

Branch- BOTANY

ANATOMY AND EMBRYOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Intercalary meristem results in a) Primary growth b) Secondary growth c) Apical growth d) None	K1	CO1
	2	How many radial vascular bundles are found in dicot roots? a) Four b) Six c) Two d) One	K2	CO1
2	3	Which gives rise to the cork tissue? a) Periblem b) Phellogen c) Phelloderm d) Periderm	K1	CO1
	4	Plants that live in water are known as a) hydrophytes b) mesophytes c) xerophytes d) halophytes	K2	CO1
3	5	What is the endothecium also called as? a) Vascular strand b) Fibrous layer c) Middle layer d) Hyperdermal layer	K1	CO1
	6	Why are pollens spiny? a) Fertilization b) Easy pollination c) To attach to bodies of insects d) Appearance	K2	CO1
4	7	A mass of nutritive material outside the embryo sac is called _____ a) Protoplasm b) Pericarp c) Ectoderm d) Perisperm	K1	CO1
	8	Functional megaspore in a flowering plant develops into a) Endosperm b) Ovule c) Embryo-sac d) Embryo	K2	CO1
5	9	Which of the following fruit is produced by parthenocarpy? a) Brinjal b) Apple c) Banana d) Jackfruit	K1	CO1
	10	The process of formation of seeds without fertilization in flowering plants is known as a) Budding b) Apomixis c) Sporulation d) Somatic hybridization	K2	CO1

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Classify the meristem based on position in the plant body.	K4	CO3
		(OR)		
	11.b.	Determine the primary structure of dicot stem.	K5	CO4
2	12.a.	Assess the anatomical adaptations of hydrophytes.	K5	CO4
		(OR)		
	12.b.	Simplify the peculiarities in wood anatomy.	K4	CO3
3	13.a.	Dissect the structure of mature anther in angiosperms.	K4	CO3
		(OR)		
	13.b.	How can plants overcome self-incompatibility?- Explain .	K5	CO4
4	14.a.	Analyse the types and significance of endosperm in flowering plants.	K4	CO3
		(OR)		
	14.b.	Compose the post fertilisation changes in flower.	K6	CO5
5	15.a.	Compile the types and importance of apomixis in plants .	K6	CO5
		(OR)		
	15.b.	How do plants disperse seeds?- Discuss.	K5	CO4

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain the types and importance of xylem elements in plants.	K5	CO4
2	17	Elaborate the process of secondary growth in the stelar region of a dicot stem.	K6	CO5
3	18	Discuss the structure and development of male gametophyte in angiosperms.	K6	CO5
4	19	Mark the diversity and typification of ovules in flowering plants.	K5	CO6
5	20	Select the types and practical significance of Polyembryony.	K5	CO6

Z-Z-Z

END