

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION MAY 2018
(Second Semester)**

Branch-BOTANY

ANATOMY AND EMBRYOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION -A (30 Marks!)

Answer ALL questions

ALL questions earn EQUAL Marks (5 x 6 = 30)

- 1 a Distinguish between the monocot and dicot leaves.
OR
b Compare the unilocular and multilocular nodes.
- 2 a Describe the anatomical features of epiphytic plants.
OR
b Explain the seed coat anatomy with suitable diagram.
- a Describe the internal structure of anther.
OR
b Give an account of pollen sterility.
- 4 a Write notes on syngamy.
OR
b Give an account of the haustorial behaviour of embryo sac.
- 5 a Give an account of the cleavage polyembryony. Add a note on its significance
w OR
b Write notes on the genetic and environmental parthenocarpy.

SECTION -B (45 Marks)

Answer any THREE questions >

ALL questions carry EQUAL Marks (3 x 15 = 45)

- 6 Give an account of the primary and secondary structures of dicot stem with suitable diagrams.
- 7 Write notes on (i) vasculature of floral anatomy (ii) anatomy of Cotyledons (iii) anatomy of Hypocotyle.
- 8 Give an elaborate account on *the in-vitro* pollen germinations.
- 9 Explain the structure of different types of ovules with suitable diagrams.
- 10 Discuss the types, classification and significance of Apomixis.