

**(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2023 ONLY)**

23PBY205

REG.NO.:

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : MAY-2024

COURSE NAME: M.Sc.-BOTANY

MAXIMUM MARKS: 75

SEMESTER:II

TIME : 3 HOURS

PLANT ANATOMY AND EMBRYOLOGY

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

K1

1. Schmdit proposed _____.
a) Apical cell theory
b) Histogen corpus theory
c) Tunica corpus theory
d) Mantle core concept.
2. Mesophyll tissue of dicot leaves are made up of _____.
a) palisade tissue
b) spongy tissue
c) palisade and spongy tissue
d) Transfusion and transfer cells.
3. Nutritive layer for the developing pollen grains is _____.
a) middle layer
b) Endothecium
c) Epidermis
d) Tapetum.
4. Female gametophyte is otherwise called _____.
a) Embryosac
b) Nucellus
c) Embryo
d) Endosperm.
5. The embryo production without the fusion of gametes is called _____.
a) Apomixis,
b) Apogamy
c) Parthenocarpy
d) Polyembryony

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.

K2

6. What is called Anomalous secondary growth?
7. Define Nodal Anatomy.
8. What is Palynology?
9. Write about Endosperm.
10. What is Polyembryony?

SECTION – B

(5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. K3

11. a) Explain the Tunica – corpus theory. **(OR)**

b) Explain the Quiescent centre concept.

12. a) Explain stomatal types. **(OR)**

b) Write about the trichomes.

(CONTD.....2)

13. a) Explain the structure of microspores.
(OR)
b) Explain the structure of microsporangium.

14. a) Describe the functions of Endosperm.
(OR)
b) Explain the Development of Dicot Embryo.

15. a) Write about the causes of polyembryony.
(OR)
b) Write about the significance of Apomixis.

SECTION – C**(5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.K4&K5**

16. a) Describe the anomalous secondary growth in dicot (Boerhaavia) stem.
(OR)
b) Explain the anomalous secondary growth in monocot stem.

17. a) Write an essay on Nodal Anatomy.
(OR)
b) Describe the anatomy of Dicot leaves.

18. a) Describe the microsporogenesis.
(OR)
b) Explain the Tapetum.

19. a) Write an essay on development of female gametophyte – polygonum type.
(OR)
b) Describe the types of Endosperm.

20. a) Explain the types of polyembryony.
(OR)
b) Write an essay on parthenocarpy and its importance.
