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SUBJECT CODE NO: - Y-2053
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y (Sem-II)
Examination March / April - 2023
Botany Paper-V Histology, Anatomy and Embryology

[Time: 1.30 Hours]

[Max. Marks: 50]

Please check whether you have got the right question paper.

N. B

- 1) Attempt all questions.
- 2) Draw neat & well labelled diagrams whenever necessary.

Q1 What are epidermal tissues? Describe in detail different types of stomata. 20

OR

Describe different theories of cellular organization of root and shoot apex.

Q2 Explain in detail the development of male gametophyte in angiosperms. 20

ORWrite short note on: - (any 4) 20

- a. Glandular and non-glandular trichomes
- b. Xylem vessel thickenings
- c. Anatomy of dorsiventral leaf.
- d. Functions of phellem, phellogen, phelloderm.
- e. Contrivances of self-pollinations.
- f. Anemophily

Q3 Multiple choice questions. 10

1. _____ plants have vessels in xylem.
 a) Pteridophytes b) Angiosperms c) Algae d) Bryophytes
2. Conjoint, collateral & open vascular bundles are found in _____.
 a) monocots b) Dicots
 c) Both dicots and monocots d) None of the plants
3. In Hydrophytes, floating ability is due to the presence of _____ tissue.
 a) collenchyma b) chlorenchyma
 c) sclerenchyma d) Aerenchyma
4. _____ increase the diameter of stem & root.
 a) Intercalary meristem b) Apical meristem
 c) Lateral meristem d) All of the these
5. Stomata are the example of _____.
 a) Secretory tissues b) Permanent tissues
 c) meristematic tissues d) Epidermal tissues

6. _____ tissues are found in all soft plant parts.
 - a) Parenchyma b) collenchyma
 - c) sclerenchyma d) None of the above
7. Tunica corpus theory is connected with _____
 - a) Root apex b) Root cap c) shoot apex d) secondary growths
8. In embryogenesis, fusion of male gamete and polar nuclei results in _____
 - a) Endosperm b) embryo c) suspensor d) Zygote
9. _____ layer of anther provides nourishment to the sporogenous tissue
 - a) Endothecium b) middle c) Tapetum d) epidermal
10. After fertilisation, seed, coat develops from _____
 - a) Chalaza b) Ovule c) embryo sac d) Integuments