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First Semester B.Sc. Degree Examination, June 2022

First Degree Programme under CBCSS

Botany

Core Course

BO 1141: ANGIOSPERM ANATOMY, REPRODUCTIVE BOTANY AND PALYNOLOGY

(2014 – 2018 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions. **Each** question carries **1** mark.

1. How can the age of a tree be determined?
2. What is stomatal apparatus?
3. What type of vascular bundles are found in monocot stem?
4. Define xylem. What are its components?
5. What is entomophily?
6. Define emasculation.
7. Name two cells of a mature pollen grain?
8. What do you mean by parthenocarpy?

P.T.O.

9. Define tapetum.

10. Define sporopflenin.

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions. **Each** question carries **2** marks.

11. Define tissues? What are the two fundamental types of tissues in plant kingdom?

12. What is meant by diffuse porous wood?

13. What are sclerids? Mention their types.

14. Differentiate between Spring wood and Autumn wood.

15. What are tyloses? Mention its significance.

16. What is dorsiventral leaf? Give example.

17. Define cork cambium and its products.

18. What arc cleistogamous flowers?

19. What do you mean by pollination? Explain the different types of pollination?

20. Differentiate between hvpocotyl and epicotyl.

21. What do you mean by double fertilization?

22. Define pollen allergy.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions. **Each** question carries **4** marks.

23. Describe briefly the three main categories of meristems on the basis of their position in the plant body.

24. With neat labelled diagram explain internal structure of Dicot root.

25. Define promeristem. Explain the terms dematogen, periblem and plerome.

26. Explain Heart wood and Sap wood.

27. What are the different types of endosperm?

28. What is triple fusion? Name the nuclei involved in triple fusion.

29. With labelled diagram, describe the parts of a typical angiospermic ovule.

30. Write a detailed note on wall layers of microsporangium and its functions.

31. What are the applications and importance of Palynology?

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. **Each** question carries **15** marks.

32. With labelleddiagram describe the anamolous secondary growth in *Boerhavia* stern.

33. Define apical meristem. What are the theories of origin of apical meristem?

34. What is microsporogenesis? With labelled diagrams explain the process of microsporogenesis in angiosperm.

35. With labelled diagrams explain different types of development of endosperm. What is the role of endosperm in plants?

(2 × 15 = 30 Marks)
