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D – 5037

Reg. No. : .....

Name : .....

First Semester B.Sc. Degree Examination, February 2018
First Degree Programme under CBCSS
BOTANY
Core Course
BO 1141 – Angiosperm Anatomy, Reproductive Botany and Palynology
(2014 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in a word or **one** or **two** sentences. **Each** question carries **one** mark. **(10×1=10 Marks)**

1. What are companion cells ?
2. What is placentation ?
3. Define bulliform cells.
4. What is syngamy ?
5. Define palynology.
6. Mention any two functions of nectar.
7. Define apical cell theory.
8. What is plasmodesmata ?
9. Define phellogen.
10. Define Triple fusion.

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SECTION – B

Answer **any eight** questions. **Each** question carries **2** marks. (Answer **not** to exceed **one** paragraph). **(8×2=16 Marks)**

11. Mention any two applications of Palynology.
12. Differentiate porogamy from chalazogamy.
13. What are hydathodes ? What are its functions ?
14. Differentiate heart wood from sap wood.
15. What are pits ? How are they classified ?

16. Differentiate interfascicular cambium from intrafascicular cambium.
17. Name any two plants yielding fibres of economic importance.
18. Describe briefly the functions of cambium in monocots.
19. What are cystoliths ?
20. What is collenchyma ? What are the different types of collenchyma ?
21. What do you understand by P-tapetum and C-tapetum ?
22. Define megasporogenesis.

SECTION – C

Answer **any six** questions. **Each** question carries **4** marks.(Answer should **not** exceed **120** words). **(6×4=24 Marks)**

23. With the help of a labelled diagram describe the structure of dicot embryo.
24. Define fertilization. Write note on barriers of fertilization.
25. Write short note on various types of endosperms.
26. Write notes on the theories on apical organizations.
27. What are secretory tissues ? How are they classified ?
28. With the help of diagrams describe various types of stomata seen in plants.
29. With the help of diagram describe the anatomy of dicot leaf.
30. Explain the reasons for anomalous secondary growth in plants.
31. Write short note on extra stelar secondary growth.

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SECTION – D

Answer **any two** questions. **Each** question carries **15** marks. (Answer **not** to exceed **three** pages). **(2×15=30 Marks)**

32. What are complex tissues ? Describe the structure and functions of various components of xylem and phloem.
33. With the help of labelled diagram explain the anomalous secondary growth in Dracaena stem.
34. Explain the characteristic features of meristematic tissues. Discuss various types of meristems and their functions.
35. Explain different types of embryosacs with suitable diagrams.