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H-2076

Reg. No. :

Name :

First Semester B.Sc. Degree Examination, November 2019

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 in a word or one or two sentences.

Each question carries 1 mark.

Define the following :

1. Cell plate
2. Complex tissues
3. Collateral bundle
4. Anomalous secondary thickening
5. Venation
6. Root hair
7. Raphides

P.T.O.

8. Tapetum
9. Monosporic embryo sac
10. Palynology

(10 × 1 = 10 Marks)

SECTION B

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

Answer not to exceed one paragraph.

Write notes on the following :

11. Pits
12. Plasmodesmata
13. Apical meristem
14. Stomata
15. Quiescent center
16. Procambium
17. Annular thickenings
18. Periderm
19. Double fertilization
20. Pollination
21. Casparian strips
22. Companion cells

(8 × 2 = 16 Marks)

SECTION C

Answer any **SIX** of the following. (Answer not to exceed 120 words).

Each question carries **4** marks.

23. Comment on simple permanent tissues.
24. Write a brief account on the theories of Shoot apex organization.
25. Write notes on Xylem.
26. Describe the structure of monocot root.
27. Explain the anomalous structures in *Boerhaavia*.
28. Give an account on non-living inclusions in a plant cell.
29. Describe briefly the structure of a typical bifacial leaf.
30. Describe the structure of an anatropous ovule.
31. Write brief notes on endosperm and its types. (6 × 4 = 24 Marks)

SECTION D

Answer any **TWO** questions. (Not more than three pages.)

Each question carries **15** marks.

32. Explain the structure and functions of Cell Wall.
33. Give an account of Meristematic tissues.
34. Describe the secondary growth in Dicot stem.
35. Describe the structure of an anther and explain microsporogenesis. (2 × 15 = 30 Marks)