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Reg. No. : .....

Name : .....

First Semester B.Sc. Degree Examination, February 2018
First Degree Programme under CBCSS
Complementary Course
BO 1131 : MICROTECHNIQUE, ANGIOSPERM ANATOMY AND REPRODUCTIVE BOTANY
(2014 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

I. Write short notes on the following (**all** questions are **compulsory**) :

1) What is Carnoy's Formula ?
2) Comment on Antipodals.
3) Briefly describe endothecium.
4) What is tapetum ?
5) Comment on Tyloses.
6) Brief note on bicollateral vascular bundle.
7) What is Heartwood ?
8) What is Phellogen ?
9) Define Tissue.
10) What is Fusiform initial ?

(10×1=10 Marks)

II. Answer **any eight** of the following :

11) Explain double staining.
12) Write a note on Apical meristem.
13) Give a short note on secretory tissue.
14) Differentiate between ring porous wood and diffuse porous wood.

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15) Briefly explain periderm formation.

16) Write a note on annual rings.

17) What are the functions of parenchyma and sclerenchyma ?

18) Explain double fertilization.

19) What are lenticels ? Describe functions of lenticels.

20) Write a note on dehiscence of anther.

21) Explain monosporic embryosac.

22) Describe wall layers of mature anther. **(8×2=16 Marks)**

III. Answer **any six** of the following :

23) Explain the structure of a typical dicot leaf with diagram.

24) Give an account on killing and fixing agents.

25) Write a note on different stains use in microtechnique.

26) What are the different types of vascular bundles ?

27) Write an account on Histogen theory.

28) Explain the structure of dicot embryo.

29) What is pollination ? Describe the different agents of pollination.

30) Explain the development of male gametophyte.

31) Distinguish between dicot and monocot stem. **(6×4=24 Marks)**

IV. Write essay on **any two** of the following :

32) Write an account on permanent tissues with suitable diagram.

33) Explain normal secondary thickening in dicot stem with the help of neat and labeled diagram.

34) Explain the anomalous secondary growth in *Boerhaavia* with diagram.

35) Write an essay on megasporogenesis and development of female gametophyte. **(2×15=30 Marks)**

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