13DD 44 – V (48)

B.Sc. V Semester Degree Examination, Nov./Dec. 2013

BOTANY

5.1 : Internal Structure Development and Reproduction in Flowering Plants (Plant Anatomy and Embryology)

Time : 3 Hours Max. Marks : 80

Instructions : *1) Questions of Part – **I** are **compulsory**.*
*2) Answer **eight** questions of Part – **II**.*
*3) **Labelled** diagrams will enhance the value of answers.*

PART – I

I. Answer the following in brief : **(2×8=16)**

1) Write four differences of Heart wood and Sap wood.
2) Explain Bicollateral Vascular Bundle.
3) Mention four differences of Trichome and Root hair.
4) What are motar cells ? Write the functions.
5) Define double fertilization and triple fusion.
6) What are Sporopollenin ? Mention its functions.
7) Define Entamophylly with example.
8) What are transfer cells ? Write the functions.

PART – II

II. Answer **any eight** of the following : **(8×8=64)**

9) Explain T.S. of Dicot Root and add a note on its secondary growth.
10) Define anamolous secondary growth and explain in Boerhaavia stem anatomy.
11) Define meristem and describe the types based with its classification.
12) What are complex tissues ? Explain the types.
13) Explain the T.S. of Dicot stem and narrate extra stelar secondary growth.
14) Describe the male ganete development in angiosperms.

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15) Define cross pollination and explain its advantages and disadvantages.

16) Describe the development of Dicot Embryo.

17) Define Apomixis and explain the types.

18) Describe female gametophyte development and explain mature embryo sac.

19) Write note on **any two** of the following : **(2×4=8)**

a) T.S. Momocot Root.

b) T.S. of Dicot leaf.

c) Secretary tissues.

20) Answer **any two** of the following : **(2×4=8)**

a) Self-Pollination.

b) Types of Embryo Sacs.

c) Endosperm.
