

Roll No.

Total No. of Questions : 9]
(2034)

[Total No. of Printed Pages : 4

UG (CBCS) IInd Year Annual Examination

2810

B.Sc. BOTANY

(Plant Anatomy and Embryology)

(DSC-IA)

Paper : III BOTA 201

Time : 3 Hours]

[Maximum Marks : 50

Note :- Attempt *five* questions in all. Q. No. 1 (Section-A) is compulsory. Attempt *one* question from each Section- B, C, D and E. Attempt all sub-parts of a question together.

Section-A

(Compulsory Question)

1. (i) Who proposed histogen theory ?
- (ii) In which leaves bulliform cells are present ?
- (iii) What is the function of tapetum layer in anther ?

CH-110

(1)

Turn Over

- (iv) Define allogamy.
- (v) What is tripple fusion ?
- (vi) The phenomena of pollination by ants is known as
- (vii) The single cotyledon of monocots is known as
- (viii) In xerophytes, the stomata are type.
- (ix) Periderm is composed of phellem, and phelloderm.
- (x) The root apex is protected by 1×10=10

Section-B

- 2. (a) What is xylem ? Explain its components and function in detail.
- (b) What is root apical meristem ? Explain different theories regarding root apical meristem. 5,5
- 3. (a) Draw well labelled diagram of transverse section of dicot stem.
- (b) Define meristem. Describe meristems based upon their position and functions. 5,5

Section-C

4. (a) Differentiate between the following :
 (i) Spring wood and Autumn wood
 (ii) Sapwood and Heartwood
(b) Describe secondary growth in dicot root. 5,5
5. (a) Explain anomalous secondary growth in Boerhavia stem.
(b) Write short notes on the following :
 (i) Lenticel
 (ii) Phellem 5,5

Section-D

6. (a) Describe development of male gametophyte in angiosperms.
(b) Only draw transverse section of mature anther in angiosperms. 5,5
7. (a) Explain process of megasporogenesis and formation of functional megaspore in angiosperms.
(b) Write a note on hydrophily in detail. 5,5

Section-E

8. (a) Describe different types of endosperms in angiosperms.
- (b) Describe structure of dicot seed. 5,5
9. (a) Describe the development of typical monocot embryo. Give necessary diagrams.
- (b) Differentiate between the following :
- (i) Generative fertilization and Vegetative fertilization
- (ii) Chalazogamy and Porogamy 5,5