

92046

B.Sc. 3rd Semester (Hons.) (New Scheme) Examination,
December-2015

CHEMISTRY

Paper-III

Botany Plant Anatomy, Reproduction and Biotechnology

Time allowed : 3 hours]

[Maximum marks : 40

Note : Question No. 1 is compulsory. Candidate will be required to attempt one question from each unit. All questions carry equal marks.

1. (i) Define meristematic tissue. 1
- (ii) Define casperian strips. 1
- (iii) Define embryogenesis. 1
- (iv) Define the term metaxenia. 1
- (v) What is explant? 1
- (vi) Define cybrids. 1
- (vii) What is biotransformation? 1
- (viii) What are transgenic plants? Give one example. 1

Unit-I

2. Describe the internal structure of dicot leaf. Also draw a well labelled diagram. 8
3. Explain the process of secondary growth in dicotyledonous root with the help of suitable labelled diagrams. 8

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Unit-II

4. What is self incompatibility ? Describe the methods to overcome self incompatibility. 8
5. Describe the structure of mature anther. Also draw a suitable well labelled diagram. 8

Unit-III

6. How the haploids are produced ? What is the importance of haploid culture ? 8
7. Write brief note on following : 4+4
 - (a) Protoplast culture
 - (b) Somatic embryogenesis.

Unit-IV

8. Write a brief note on the following : 4+4
 - (a) Transgenic plants
 - (b) Edible vaccines.
9. Explain the Agrobacterium mediated gene transfer methods in plants. 8

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