

6. (a) Explain plant-explant-plant concept. 4
(b) Discuss cell differentiation and dedifferentiation in detail. 4

SECTION-D

7. Discuss Agrobacterium mediated method of genetic transformation in plants. 8
8. (a) Discuss about the features and application of Ti plasmid in detail. 4
(b) Discuss the influence of acetosyringone and opines on agrobacterium mediated genetic transformation of plants. 4

Exam. Code : 107405

Subject Code : 1743

B.Sc. Biotechnology 5th Semester

CONCEPTS OF PLANT TISSUE CULTURE

Paper : BT-2

Time Allowed—3 Hours] [Maximum Marks—40

Note :- Attempt **FIVE** questions in all, selecting at least **ONE** question from each section. The **fifth** question may be attempted from any section. All questions carry equal marks.

SECTION-A

1. What are macronutrients ? Discuss in detail about the role of macronutrients in MS media. 8
2. Discuss various components of MS basal plant tissue culture media in detail. 8

SECTION-B

3. Explain the biosynthesis and role of auxin in plants. 8
4. Explain the biosynthesis and role of cytokinins in plants. 8

SECTION-C

5. Discuss about various intrinsic and extrinsic factors that influence plant tissue culture. 8