

No. of Printed Pages : 03

Roll No.

F-61

B. Tech. EXAMINATION, May 2017

(Sixth Semester)

(B. Scheme) (Main & Re-appear)

BT

BT-302-B

PLANT BIOTECHNOLOGY

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

(1-03/20) M-F-61

P.T.O.

Unit I

1. Discuss in detail the scope and applications of plant biotechnology as a field of science.
2. Explain the concept of suspension cultures. Give the various applications of suspension cultures and also enumerate its types.

Unit II

3. Write short notes on the following :
 - (a) Anther Culture
 - (b) Diplodization
 - (c) Gametoclonal Variation.
4. What are Gynogenic Haploids ? Enumerate the various factors affecting gynogenesis.

Unit III

5. Elaborate the various methods of protoplast isolation. Also discuss the features of protoplast development.

6. What do you understand by Cryopreservation ? Enumerate and explain the various cryoprotectants used for storage of germplasm.

Unit IV

7. Discuss in detail the various methods of vectorless gene transfer methods used in plants.
8. How can you use transgenics in crop improvement ? Elaborate.