

TDC Even Semester Exam., 2019

BIOTECHNOLOGY

(Honours)

(6th Semester)

Course No. : BTCH-602

(Plant Biotechnology-II)

Full Marks : 35Pass Marks : 12

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

1. (a) What do you mean by plant tissue culture? Discuss different requirements for plant tissue culture. 1+4=5
- (b) What types of precaution should be taken during plant tissue culture? 2

OR

2. (a) What do you mean by secondary metabolites? 2
- (b) Describe the steps involved in large-scale production of secondary metabolites through tissue culture. 5

3. (a) What is germplasm? Why is germplasm conservation necessary? 1+2=3
- (b) Discuss the different methods of germplasm conservation. 4

OR

4. (a) Give an account of biotransformation. 5
- (b) Write the limitations of plant tissue culture. 2
5. Write a note on industrial application of plant tissue culture. 7

OR

6. Define cryopreservation. Discuss the conditions required for cryopreservation. 7
7. (a) With schematic diagram, describe the methods of gene transfer. 5
- (b) Name some vectors that help in gene transfer. 2

OR

8. (a) What do you mean by molecular marker? Give examples of two molecular marker with specific function. 5
- (b) Write the use of PCR in cloning of gene. 2

(3)

9. (a) Discuss in brief about map-based gene cloning. $3\frac{1}{2}$
- (b) Add a note on chromosome walking. $3\frac{1}{2}$

OR

10. Write notes on the following : $3\frac{1}{2}\times 2=7$
- (a) SSR
- (b) AFLP
