

VI Semester B.Sc. Examination, May 2016  
 (Semester Scheme) (Fresh + Repeaters)  
 (70 Marks – 2013-14 and Onwards)  
 (60 Marks – Prior to 2013-14)  
**BIOTECHNOLOGY – VII**  
**Plant Biotechnology**

Time : 3 Hours

Max. Marks : 70/60

- Instructions :** 1) Draw *neat* labelled diagrams *wherever* necessary.  
 2) **70** marks for students **2013-14** batch Onwards.  
 3) **60** marks for repeaters prior to **2013-14** batch  
 4) Q. IV, Section – **D** is **compulsory** for students of **2013-14** batch Onwards.

## SECTION – A

I. Write short notes on the following :

(5×2=10)

- 1) Surface sterilization
- 2) Aurotrophic mutants
- 3) Endosperm culture
- 4) Patent Co-operation Treaty
- 5) Subunit Vaccine.

## SECTION – B

II. Write **any four** of the following :

(4×5=20)

- 6) What are reporter genes ? Write a note on luciferase gene expression.
- 7) Write the significance of Nif-gene transfer through tissue culture.
- 8) What is osmosis ? What is the role of osmoticum in protoplast isolation ?
- 9) What is the advantage of pollen culture over anther culture ? Give 3 applications of anther and pollen culture.
- 10) Write a note on cytokinin. Give two examples of synthetic cytokinins.

P.T.O.

