Total No. of Questions : 8]

SEAT No. : ____

P1838

[Total No. of Pages : 2

[5232]-46

M.Sc. - II
BIOTECHNOLOGY
BT-44C : Agricultural Biotechnology
(2008 Pattern) (Semester-IV)

Time : 3 Hours] ***[Max. Marks : 60***

Instructions to the candidates:

1) ***Answer a total of five questions selecting atleast two questions from each section.***
2) ***Answer to the two sections should be written on separate answer sheets.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Figures to the right indicate full marks.***

SECTION-I

Q1) Define micropropagation. Elaborate various stages of micropropagation. Add a note on advantages and limitations of micropropagation. **[12]**

Q2) Describe in detail, the methodology used to produce homozygous plants through anther culture. **[12]**

Q3) What is polyembryony? Explain the significance of induced polyembryony in agriculture. **[12]**

Q4) Write notes on any two of the following: **[12]**

a) Embryo rescue technique.

b) Applications of endosperm culture in agriculture.

c) Types of apomixis.

P.T.O.

SECTION-II

Q5) What is transgenic technology? Explain in detail, how it is used to produce herbicide resistant crops. **[12]**

Q6) Discuss importance of marker assisted selection in crop improvement. **[12]**

Q7) Write notes on: **[12]**

a) Somaclonal variations.

b) Edible vaccines.

Q8) Attempt any two of the following: **[12]**

a) Discuss production of novel plant products through metabolic engineering.

b) Describe various methods of virus indexing.

c) Write advantages of biofertilizers.