

Total No. of Questions :8]

SEAT No. :

**P1864**

**[4936]-46**

[Total No. of Pages :2

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

*Time : 3 Hours]*

*[Max. Marks :60*

*Instructions to the candidates:*

- 1) Attempt total five questions selecting at least two questions from each section.*
- 2) Answer to the sections must be written on separate answer books.*
- 3) Neat labelled diagrams must be drawn wherever necessary.*
- 4) Figures to the right indicate full marks.*

**SECTION - I**

**Q1)** What are pure lines? 'Production of purelines through ovule/Anther/Pollen culture is convenient over conventional methods' Justify. **[12]**

**Q2)** Explain how triploid plants are produced by tissue culture technique. Give significance of triploid plants in Agriculture. **[12]**

**Q3)** With suitable example comment on micropropagation of any one cereal crop plant. **[12]**

**Q4)** Write notes on (Any two) **[12]**

- a) Significance of embryo culture.
- b) Induced polyembryony.
- c) Biofertilizers.

**P.T.O.**

**SECTION - II**

**Q5)** Enlist and explain types of bioreactors used in plant production. [12]

**Q6)** Elaborate transgenic approaches used to develop plants resistant to any two abiotic stresses. [12]

**Q7)** Define somaclonal variations. Explain factors affecting somaclonal variations. Add note on its significance. [12]

**Q8)** Write notes on (Any two) [12]

- a) Virus indexing.
- b) Types of apomixis.
- c) Marker assisted selection.

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