



KC-225

Seat No. 1609

Third Year B. Sc. Examination

March / April - 2013

Biotechnology : Paper-VIII

*(Principles of Biotechnology
Applied to Plants & Animals)*

Time : 3 Hours]

[Total Marks : 70

1 Answer the following : 14

- (a) Define : Micropropagation. Describe Stages of Micropropagation in PTC.
- (b) Write about selection and preparation of explants.

OR

- (a) Write a note on laboratory design of plant tissue culture.
- (b) Write a short note on Media of Plant tissue culture.

2 Explain the following : 14

- (a) Discuss Pollen and Anther culture.
- (b) Write about somatic embryogenesis and synthetic seed.

OR

- (a) Short note : Cryopreservation.
- (b) Short note : Cell suspension culture and production of secondary metabolites.

- 3 Discuss the following : 14
- (a) Discuss physical and chemical methods of gene transfer.
 - (b) Write a short note on GM Food.

OR

- (a) Write about stress and disease resistant plants.
- (b) Describe Agrobacterium mediated gene transfer in plants.

- 4 Discuss the following : 14
- (a) Discuss bioreactors used in animal tissue culture.
 - (b) Give brief account on various types of culture media used for animal cell cultures.

OR

- (a) Write about Primary culture and continuous cell line.
- (b) Write a short note on In vitro fertilization.

- 5 Write a note on any two of the following : 14
- (a) Describe the Vaccine production by animal cell cultures.
 - (b) Give an overview on Stem Cell Technology.
 - (c) Write about transgenic mice and fish
 - (d) Write a short note on Hybridoma technology.

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