

TE VI / BT / CBGS / (2)

Biotech sub. Cell and Tissue Culture

BT / VI / CBGS

QP Code : 5188

CTC

Extra

(3 Hours)

23

[Total Marks : 80

- NB: 1. Question no. 01 is compulsory.
2. Attempt any 03 questions out of remaining 05 questions.
3. Draw neat labeled diagrams wherever necessary

1. a) What is a Plant tissue culture media? Explain various components of plant tissue culture media. (10M)
- b) What is a primary culture? Explain the process of primary culture giving the detailed flow sheet of the process? (10M)
2. a) What is somatic hybridization? Explain various methods for protoplast fusion. (10M)
- b) Differentiate between: (10M)
 1. Batch Culture & Continuous culture
 2. Turbidostat & Chemostat
3. a) Define gene transfer. Explain the physical methods of gene transfer in plants. (10M)
- b) Explain the process of Agrobacterium mediated gene transfer with a neat labeled diagram. (10M)
4. a) With a neat labeled layout, explain the design of a Animal tissue Culture Laboratory. (10M)
- b) What is serum? Give a description about components of serum & its disadvantages. (10M)
5. a) Explain various parameters affecting the biology of cultured cells. (10M)
- b) Explain various methods of cell separation utilized in Animal cell culture. (10M)
6. Write the short notes on the following - (20M)
 - a. Growth Hormones
 - b. Artificial Seeds
 - c. Feeder Layer
 - d. Cell Cycle

— X —