M. Sc. (Integrated Biotechnology) (Sem. VII) Examination
March / April - 2016
BT-1004 : Cell & Tissue Culture Technology - I

Time : 3 Hours] [Total Marks : 70

Instruction :
Fill in strictly the details of signs on your answer book.

Name of the Examination : M. Sc. (Integrated Biotechnology) (Sem. VII)
Name of the Subject : BT-1004 : Cell & Tissue Culture Technology - I
Subject Code No. : 1 6 9 8 Section No. (1, 2, ....) : Nil

1: Answer Any Two: (18)
   a) Enlist different levels of regulation of gene expression in plants.
   b) Discuss the details of mitochondrial and chloroplast genomes in plants
   c) What are promoters and heterologous promoters? List out the examples of promoter elements used to drive transgene expression in plants

2: Answer Any Two: (18)
   a) Explain the terms plasticity and totipotency? Discuss the characteristics of culture environment in plant tissue culture.
   b) Discuss in detail the applications and disadvantages of somaclonal variations
   c) Give the details of the factors responsible for somaclonal variations in plants

3: Answer Any Two: (18)
   a) Describe in detail Antibody based techniques for cell separation.
   b) Write a detail note on aberrant growth control.
   c) Describe suspension cloning and isolation of clones.

4: Write short notes on Any Four: (16)
   a) Chromosomal aberrations
   b) Transformation
   c) Control of senescence
   d) Tumorigenicity
   e) Immortalization with viral genes

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