



DI-1706

M. Sc. (Int. Biotechnology) (Sem. IX) Examination
March / April - 2016

IBT-3004 : Cell & Tissue Culture Technology - II

Time : 3 Hours]

[Total Marks : 70

Instruction :

नीचे दर्शाविए निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
☛ M. Sc. (INT. BIOTECHNOLOGY) (SEM. 9)	<input type="text"/>
Name of the Subject :	<input type="text"/>
☛ IBT-3004 : CELL & TISSUE CULTURE TECHNOLOGY - 2	<input type="text"/>
☛ Subject Code No. : <input type="text" value="1"/> <input type="text" value="7"/> <input type="text" value="0"/> <input type="text" value="6"/>	☛ Section No. (1, 2,.....) : <input type="text" value="Nil"/>
Student's Signature	

1: : Attempt Any Two:

18

- a. What is a promoter? Describe their role in regulation of gene expression.
- b. What is an aptamer. Describe in detail about nucleic acid aptamer selection using SELEX?
- c. Describe microarray by briefly describing the working principle and types of microarray used and their role in molecular biology?

2: Attempt Any Two

18

- a. Write down the principle and applications of the following techniques with suitable illustrations-
 - i. DNA foot printing
 - ii. Gel Shift analysis
- b. Describe the role of Vir operon in Agrobacterium mediated gene transfer?
- c. List several Advantages and Disadvantages of immobilization of plant cells?

- 3: Attempt Any Two** 18
- a. Describe the importance and principles of cryopreservation.
 - b. Explain growth cycle and growth curve analysis of a cell line.
 - c. Write down the principle and applications of cytotoxicity assays.
- 4: Write notes on Any Two** 16
- a. Describe derivation and subculture of Mouse Embryonic Stem cells.
 - b. Describe somatic cell fusion technique.
 - c. Write down the principle and applications of flow-cytometry.
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