

M.Sc.(Biotechnology) (NEP Pattern) - Semester-III
STPG03BTH001 - Paper-I : Animal Bio-technology

P. Pages : 1

Time : Three Hours



GUG/W/24/15946

Max. Marks : 80

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- Notes : 1. All questions are compulsory & carry equal marks.
2. Draw well labelled diagram wherever necessary.

1. Discuss chemical, physical and metabolic functions of different constituents of animal cell culture medium. **16**

OR

Write note on:

- a) Characteristics of cells in culture. **8**
b) Culture media for Animal cell culture. **8**

2. Describe various methods of separation of cell types. Give its advantages & limitations.. **16**

OR

Write note on:

- a) Primary culture. **8**
b) Three dimensional culture. **8**

3. What is stem cell culture? Describe embryonic stem cells and their applications. **16**

OR

Write note on:

- a) Cell synchronization and manipulation. **8**
b) Measurement of Apoptosis in cell culture. **8**

4. Describe in detail, 'In Vitro Fertilization technology'. **16**

OR

Write note on:

- a) Use of transgenic animals in disease interruption. **8**
b) Mass production of vaccines. **8**

5. Write short notes on:
a) Contact inhibition. **4**
b) Maintenance & management of cell lines. **4**
c) Cell transformation. **4**
d) Xenotransplantation. **4**
