

M.Sc.(Biotechnology) (CBCS Pattern) Semester - III
PSBIT109 - Paper-I : Animal Biotechnology

P. Pages : 1

Time : Three Hours



GUG/S/23/11236

Max. Marks : 80

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- Notes : 1. All questions re compulsory and carry equal marks.
2. Draw diagram wherever necessary.

1. Discuss in detail Natural and synthetic media, balanced salt solutions used in animal biotechnology. **16**

OR

Write notes on:

- a) Equipments and materials for animal cell culture technology. **8**
b) Cell-cell communication. **8**

2. Discuss various methods of separation of cell types and its advantages. **16**

OR

Write notes on:

- a) Management and maintenance of cell lines. **8**
b) Three dimensional culture. **8**

3. Discuss in detail tissue engineering and tissue modelling. **16**

OR

Write notes on:

- a) Stem cell cultures and their applications. **8**
b) Cell cloning and applications. **8**

4. Discuss in detail in vitro fertilization technology with respect to embryo cloning. **16**

OR

Describe mass production of vaccines and cytotoxicity test to determine the safety. **16**

5. Write short note on:
a) Role of CO₂ in culture medium. **4**
b) Explant Culture. **4**
c) Death domain. **4**
d) Artificial insemination. **4**
