

B.Sc. (with Credits)-Regular-Semester 2012 Sem VI
B.Sc.4505-Biotechnology : Paper-II Animal Biotechnology

P. Pages : 2

Time : Three Hours



GUG/W/16/5622

Max. Marks : 50

Notes : 1. All questions are compulsory and carry equal marks.

1. Discuss the chemical, physical and metabolic functions of different constituents of culture medium.

OR

Discuss various methods of separation of cell types.

2. What are stem cell cultures. Give their application.

OR

Explain Transgenic animals with one example.

3. a) Give characteristics of cells in culture.
b) Write short note on explant culture.
c) Write short note on cell transformation.
d) Give account of artificial insemination.

OR

- e) What are the natural and synthetic media used for animal cell culture.
f) Write short note on suspension culture.
g) What is the role of cytochrome C in apoptosis.
h) Give mass production of vaccine in short using animal tissue culture.

4. a) Give the role of CO₂ in culture medium.
b) What are the properties of primary cell culture.
c) Discuss three dimensional cultures.
d) Discuss invitro fertilization technique.

OR

- e) Give advantages & disadvantages of various systems of animal tissue culture.

2½

- f) Discuss the maintenance of cell line cultures. 2½
- g) What is cell manipulation. 2½
- h) How reproduction in humans are manipulated. 2½

5. Answer **any ten.** (1 mark each)

- a) Define pluripotency. 1
- b) What is the role of serum in culture. 1
- c) Which supplements are used in animal cell culture. 1
- d) Define cell lines. 1
- e) What is the role of EDTA in animal tissue culture. 1
- f) Define cryopreservation. 1
- g) Define apoptosis. 1
- h) What are embryonic stem cell. 1
- i) What is death domain. 1
- j) Define invitro fertilization. 1
- k) Which was the first transgenic animal produced? 1
- l) Give 2 application of animal tissue culture. 1
