



KT-5278

Seat No. _____

B. Sc. (Sem. V) Examination

November / December - 2014

Biotechnology : Paper - X

Core Course (CC - 1 - 10)

(Principles of Biotechnology Applied to Animals)

Time : 3 Hours]

[Total Marks : 70

1 Answer all questions. Each question carries 10
1 mark :

1.1 Serum should be sterilized by

- A. Autoclave C. Dry heat
B. Filtration D. Radiation

1.2 Physiochemical properties of synthetic medium

- A. Serum & Growth supplements
B. CO₂ gas phase & buffers
C. Temperature & Vitamins
D. Bicarbonate & Antibiotics

1.3 Primary explants techniques was developed by

- A. Eillget C. Harrison
B. Lancher D. Nicosia

1.4 Repeating sample can be allows

- A. Cold tyipnization
B. Warm tyipnization
C. Collagenase
D. All

1.5 Cells should measure in culture

- A. Cell density C. PCV
B. Cell counts D. All

1.6-1.9 match followings :

- | | |
|-----------------|--------------------------|
| A. BAC | 1. Culture |
| B. Hybridoma | 2. Vector |
| C. Cell line | 3. Utensil |
| D. Roller racks | 4. Monoclonal antibodies |

1.10 Full form of IVF.

2 Answer any five questions each carries $2 \times 5 = 10$
2 marks :

- 2.1 Give definition of primary culture.
- 2.2 Define Animal tissue culture.
- 2.3 Write methods of disaggregation.
- 2.4 Give list of animal tissue culture media supplements.
- 2.5 Define clone.
- 2.6 Define Stem cell.
- 2.7 Define hybridoma technology.

3 Answer any five questions each carries $6 \times 5 = 30$
6 marks :

- 3.1 Explain Application of Animal tissue culture.
- 3.2 Describe enzymatic methods of disaggregation.
- 3.3 Write short note on "Stem cell Technology".
- 3.4 Describe transgenic animal methods.
- 3.5 Explain animal vectors with examples.
- 3.6 Give and explain methods of organ culture.
- 3.7 Describe cryopreservation and advantages.

4 Answer any two questions each carries $10 \times 2 = 20$
10 marks :

- 4.1 Explain in detail hybridoma technology and its application.
- 4.2 Describe IVF technology in detail.
- 4.3 Explain various types of Bioreactors.