

4. a) Describe about the in vitro fertilization technology

OR

b) Explain the embryo culture and transfer methodologies

5. a) Describe the production of insulin by rDNA technology

OR

b) Discuss the production of Hepatitis – B vaccine by rDNA technology

6. a) Write down the methodology and applications of gene knockout technology

OR

b) Describe the technique of animal cloning by embryonic stem cell nuclear transfer

[29/II Y/211]

[Aug-11]

[SPDBT-204]

M.Sc. DEGREE EXAMINATION

Biotechnology

II YEAR

ANIMAL AND MEDICAL BIOTECHNOLOGY

(Effective from the admitted batch 2009-10)

Time: 3 Hours

Max.Marks: 70

Instructions: All parts of the unit must be answered in one place only.
Figures in the right hand margin indicate marks allotted.

SECTION-A

1. Answer any **Four** of the following: (4x5=20)

- a) Balanced Salt Solution (BSS)
- b) Pluripotent stem cells
- c) Superovulation
- d) Interferon
- e) Artificial skin
- f) Somatic cell nuclear transfer
- g) Biopharming

SECTION-B

Answer all questions: (5x10=50)

2. a) Write down the carbon dioxide, serum and supplements in tissue culture

OR

b) Describe the various methods used in measurement of cell viability and cytotoxicity

3. a) Discuss the methodology involved in isolation and culture of stem cells

OR

b) Write down in detail about the embryonic stem cells and their applications in medicine