

Roll No.

Exam Code : M-21

Subject Code—52589

B. Sc. EXAMINATION

(Batch 2017 Re-appear)

(Fifth Semester)

BIOTECHNOLOGY

Paper XI

Animal Biotechnology

Time : 3 Hours

Maximum Marks : 40

Note : Attempt *Five* questions in all. Q. No. 1 is compulsory. All questions carry equal marks.

1. Write short answers of the following : $4 \times 2 = 8$

- (a) Finite cell lines
- (b) Artificial skin
- (c) Expressed proteins
- (d) Transgenic animals

Unit I

2. (a) Explain the cell repositories and their functions. 4
- (b) Advantages and disadvantages of serum containing media. 4
3. (a) Explain the common features of continuous cell lines. 4
- (b) Write the scope and applications of animal cell and tissue culture. 4
4. (a) Write the different instruments and their uses in animal cell culture. 4
- (b) Explain the different reactors used for large scale production of suspension cultures. 4

Unit II

5. (a) Explain the procedure of cloning and expression of foreign genes in animal cells. 5
- (b) Define transgenic animals. Describe the objectives of gene transfer. 3

6. (a) What is gene therapy ? Describe its types and major achievements. 4
- (b) Explain the principle and application of monoclonal antibodies. 4
7. Write the procedure, applications and limitation of artificial insemination. 8