

Roll No.

94172

B. Sc. 6th Semester (Bio-Technology)

Examination – April, 2014

Animal Bio Technology

Paper : BT-602

Time : Three Hours]

[Maximum Marks : 40

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Question No.1 is *compulsory* and attempt any *four* questions selecting *one* question from each Unit given below. All questions carry equal marks.

1. Write note on the following :

- (a) Reporter gene
- (b) Transfection
- (c) Transgenesis

- vector used in cloning*
- (d) Cloning Vector
- (e) Semen *- fluid ejected by penis of male; contain sperm & plasma*
- (f) Clone - *Exact copy of an individual*
- (g) Gene Tagging - *to specify or tag a gene for modification.*
- (h) Genetic engineering *alteration of gene of an individual.*

UNIT - I individual.

2. What are stem cells ? Difference between the embryonic and somatic stem cells.
3. Write note on any *two* on the following :
 - (a) Retrovirus
 - (b) Microinjection
 - (c) Polyethylene glycol

UNIT - II

4. What is animal biotechnology ? Describe role of animal biotechnology in Trypanosomiasis and Theileriosis.
5. Write note on the following :
 - (a) Transgenic Mice
 - (b) Transgenic Sheep (Dolly)

UNIT - III

6. Write note on the following :
 - (a) Artificial insemination
 - (b) Human cloning
7. Describe the various applications of stem cell in the field of medical sciences.

UNIT - IV

8. What is gene therapy ? Describe various step and requirements involved during the gene therapy.
9. Describe various problems and ethical issues related to the human genetic engineering.