

Roll No.

Total Pages : 2

11405

LMDQ/M-24

ANIMAL & MEDICAL BIOTECHNOLOGY

Paper–BT-403

Time : Three Hours]

[Maximum Marks : 80

Note : Candidates are required to attempt Q. No. 1 and four others selecting *one* from each unit.

Compulsory Question

1. Define and explain the following :

- (a) Artificial Insemination.
- (b) Embryonic stem cells.
- (c) Ribozyme.
- (d) Alpha 1 antitrypsin.
- (e) Transgenic cattle.
- (f) Personalized medicine.
- (g) Nanotechnology.
- (h) Molly sheep.

(8×2=16)

UNIT-I

2. Discuss the following :

- (a) Transfection Methods.
- (b) Creation of Dolly.

(8,8)

3. (a) What is molecular Pharming? Discuss the production of therapeutic products using transgenic organisms.

(8)

- (b) How transgenic mice can be produced ? Discuss in detail applications of transgenic mice. (8)

UNIT-II

4. Discuss in detail the principle and technique of embryo transfer technology along with applications of this technology. (16)
5. Describe briefly :
- (a) Different types of stem cells.
 - (b) Advantages of embryo transfer technology. (10,6)

UNIT-III

6. What are different types of gene therapy? Discuss in detail gene therapy for SCID and neurological disorders. (16)
7. Describe Briefly :
- (a) Nucleic Acid Therapeutics.
 - (b) Recombinant Antibodies. (10,6)

UNIT-IV

8. What are different types of nanoparticles? Discuss in detail different methods of synthesis of nanoparticles. (16)
9. Discuss the following :
- (a) Applications of nanoparticles.
 - (b) Pharmacogenomics. (10,6)
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