

- i. Recombinant DNA technology
- ii. Calcium chloride method of transformation
- iii. Somatic Cell Nuclear transfer
- iv. Recombinant vaccines

[This question paper contains 4 printed pages.]

Your Roll No.....

आपका अनुक्रमांक.....

Sr. No. of Question Paper : 3410

I

Unique Paper Code : 2234000007

Name of the Paper : GE 11: Animal Cell
Biotechnology

Name of the Course : **B.Sc./BCom. /B.A.**

Semester : V, (NEP-UGCF)

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt Four questions in all, including Question No 1 is which is compulsory.
3. Illustrate your answers with appropriate diagrams whenever necessary.

1. (a) Define the following:

i. Transformation

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ii. Transgene

iii. Plasmid

iv. Frequent cutters

v. Primers

(b) Differentiate between **any three** of the following:
(2X3)

i. Continuous and Fed batch Fermentation

ii. Cosmid and Phagemid

iii. Dolly and Polly

iv. Cloning Vector and Expression vector

(c) Expand the following: (4)

i. CFU

ii. YAC

iii. MCS

iv. IPTG

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2 (a) What is transgenesis? Discuss two methods for producing Transgenic mice? (8)

(b) Make a map of pBR322. Discuss the selection of transformants using this plasmid. (7)

3. (a) Describe the strategy used to produce recombinant human insulin. (8)

(b) Describe the process of Ion Exchange chromatography. (7)

4 (a) What are restriction enzymes? Elaborate on the different types of restriction enzymes. (8)

(b) Write a short note on Gene therapy and its types. (7)

5 (a) Describe the procedure for creating and screening Genomic DNA Library. Add a note on cDNA libraries. (7,3)

(b) Write a short note on Adsorption Chromatography.. (5)

6. Write short notes on **Any Three** of the following:
(5,5,5)

P.T.O.