

Total No. of Questions : 4]

SEAT No. :

P1435

[5124]-42

[Total No. of Pages : 1

M.Sc.

BIOCHEMISTRY

**BCH:472: Genetic Engineering
(2010 Pattern) (Semester - IV)**

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

Q1) Answer any four of following: **[20]**

- a) Explain role of ligases and alkaline phosphatase.
- b) Write note on bacteriophage as vector in genetic engineering.
- c) Write note on immunological methods for selection of recombinants.
- d) Explain Northern blotting.
- e) Explain different methods of transfection.

Q2) Answer any four: **[20]**

- a) What is meant by transgenic animals? Explain with example.
- b) Give application of microarray.
- c) Give the methods in protein engineering.
- d) What is cDNA library? Give method for its construction.

Q3) Answer any four of following: **[20]**

- a) Explain replica plating and its application.
- b) Explain M13 bacteriophage vector.
- c) Give applications of PCR.
- d) What is chromosome walking.

Q4) Write note on any four of following: **[20]**

- a) Epigenetics.
- b) Cosmids.
- c) Microarray
- d) Blue white screening

