

Total No. of Questions : 4]

SEAT No. :

P1430

[5124]-31

[Total No. of Pages : 2

M.Sc.

BIOCHEMISTRY

**BCH - 370 : Molecular Biology
(2008 and 2010 Pattern) (Semester - III)**

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to right indicate full marks.*

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

- a) What are retrotransposons? Give their mechanism of transposition.
- b) What is DNA methylation? Give its significance.
- c) Explain pyrimidine dimer formation and its repair.
- d) Write note on role of shine and Dalgarno sequence and its significance.

Q2) Attempt any two of following: **[20]**

- a) Explain in detail base excision repair mechanism.
- b) Write note on mitochondrial protein transport.
- c) Write note on inhibitors of transcription process.

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

- a) Explain mRNA capping. Give its role and significance.
- b) Explain clover leaf structure of t-RNA.
- c) DNA replication is semiconservative. Explain.
- d) Write note on types of RNA polymerases and their role in brief.

P.T.O.

Q4) Write short notes on any four of following:

[20]

- a) Need and Mechanism of splicing.
- b) SOS response.
- c) Protein targetting.
- d) Okazaki fragments.
- e) Role of RecA, RuvB, RuvA, RuvC in recombination.

