Total No. of Questions : 8]

SEAT No. :

P3217

[Total No. of Pages :2

[5032]-23
M.Sc. - I
BOTANY
BO - 2.3 : Molecular Biology and Genetic Engineering
(2008 Pattern) (Semester - II)

Time : 3 Hours] ***[Max. Marks :80***

Instructions to the candidates:

1) ***Answer any five questions, selecting at least two Questions from each section.***
2) ***All questions carry equal marks.***
3) ***Neat labelled diagrams must be drawn wherever necessary.***

SECTION - I

Q1) Write mechanism of prokaryotic DNA replication.

Q2) a) Describe structure & role of promoters & terminators.

b) Explain chemical, thermal & spectroscopic properties of DNA.

Q3) a) Give structure & uses of any two cloning vectors.

b) Discuss steps in construction of Gene libraries & their applications.

Q4) Write short notes on Any Two of the following:

a) Cot curve & cot ½ value.

b) Excision repair mechanism.

c) Transcription Apparatus.

P.T.O.

SECTION - II

Q5) Describe any one method of DNA sequencing.

Q6) a) Explain concept of Lac operon.

b) Give an account of post translational control of protein synthesis.

Q7) a) Write transgenic approaches for fungal disease resistance.

b) Discuss the procedure of southern blotting technique & enlist its applications.

Q8) Write short notes on Any Two of the following:

a) Restriction endonucleases.

b) Polymerase Chain Reaction.

c) Bacteriophage vectors.