Total No. of Questions : 8]

SEAT No. : ____

P1729

[Total No. of Pages : 2

[5132]-41
M.Sc.
BIOTECHNOLOGY
BT - 41 : Genomics & Proteomics
(2008 Pattern) (Semester - IV)

Time : 3 Hours] ***[Max. Marks : 60***

Instructions to the candidates:

1) ***Attempt a total of five questions selecting at least two questions from each section.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***

SECTION - I

Q1) What is 'Comparative Genomics'? Explain its methods and scope. **[12]**

Q2) Discuss High throughput sequencing methods and explain any one in details. **[12]**

Q3) Write short note on : Any two **[2×6=12]**

a) DNA microarray.

b) Pharmacogenomics.

c) Global analysis of gene expression.

Q4) a) Discuss applications of microarray technology in functional genomics. **[6]**

b) Explain significance of databases in genomics studies. **[6]**

SECTION - II

Q5) Explain Proteome and Proteomics in details. Add a note on significance of proteomics in biotechnology. **[12]**

Q6) Give principle and working of 2D gel electrophoresis and give any two applications. **[12]**

P.T.O.

Q7) Write a short note on: Any two **[2×6=12]**

a) Protein structure databases.

b) Protein microarray.

c) Protein - protein interaction studies.

Q8) a) Discuss applications of Proteomics with appropriate examples. **[6]**

b) Explain Ramachandran plot and its role in protein structure prediction. **[6]**

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