FACULTY OF SCIENCE
M.Sc. IV-Semester (CBCS/NONCBCS) Examination, May / June 2015
Subject : Biochemistry
Paper : II
Bio-informatics

Time : 3 hours  Max. Marks : 80

Note : Answer all questions from Part-A and Part-B. Each question carries
4 marks in Part-A and 12 marks in Part-B.

PART – A  (8 x 4 = 32 Marks)
(Short Answer Type)

1  BLAST
2  Epigenomics.
3  Serial analysis of gene expression
4  Transcriptomics
5  Edman degradation
6  Motifs of DNA binding proteins
7  Minimal genome concept
8  Metagenomics

PART – B  (4 x 12 = 48 Marks)
(Essay Answer Type)

9  a) Give an account of 1st and 2nd generation DNA sequencing methods.
   OR
   b) Write a note on DNA sequence data bases, add note on data mining and uses
      of data bases.

10  a) Discuss different tools of transcriptomics.
    OR
    b) How will you identify the expressed sequences by Chipseq, DNase seq?

11  a) Write note on :
    i) Micro arrays for proteins
    ii) Peptide sequences and MS profiles data bases
    OR
    b) Give an account of protein structure prediction by Homology modeling.

12  a) Describe in detail the use of genomics for rational drug design and drug
discovery.
    OR
    b) Discuss the following :
       i) PCR to create synthetic gene
       ii) Building an artificial phase

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