

Exam.Code:5012
Sub. Code: 11752

2056
Bachelor of Science (FYUP) Second Semester
Bio-Informatics
Paper: Bioinformatics - II (Old)

Time allowed: 3 Hours

Max. Marks: 60

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Answer the following briefly:-

- a) T-Coffee
- b) E-Value
- c) Substitution matrices
- d) UPGMA
- e) PILEUP
- f) SCOP

(6x2)

UNIT - I

II. a) Explain the principle, application and types of BLAST.

b) Discuss the significance of Bit Score.

(8,4)

III. a) Differentiate between BLAST and FASTA.

b) Elaborate on the construction of PAM amino acid substitution matrices.

(2x6)

IV. Explain CLUSTAL - X for multiple sequence alignment.

(12)

UNIT - II

V. a) Write an introduction to phylogenetic analysis and its applications.

b) Discuss the MEGA package for phylogenetic analysis.

(2x6)

VI. Write notes on:-

a) PDB

b) CATH

(2x6)

VII. Discuss any distance based method for phylogenetic analysis.

(12)

x-x-x

