

2007-ANDHRA UNIVERSITY
IV B.TECH II SEMESTER DEGREE EXAMINATION
BIOINFORMATICS (ELECTIVE-II)
(COMPUTER SCIENCE AND ENGINEERING)

TIME-3HOUR
MARKS-70

NOTE:SECTION A IS COMPULSORY.ATTEMPT ANY FOUR QUESTIONS FROM SECTION B.

SECTION A [5*2=10 MARKS]

- a) Folding Problem
- b) Motifs
- c) UniGene
- d) Positional Cloning
- e) Identity and Similarity

SECTION B [4*15=60 MARKS]

- 2. a) What is bioinformatics? Explain the importance of bioinformatics?
- b) What are the application areas of different analysis methods?
- 3. a) Explain the structure of SWISS-PROT entries.
- b) Why create secondary databases?
- 4. a) Explain GenBank.
- b) What is the importance of specialized genomic resources?
- 5. What is GenBank? Explain the structure of GenBank entries
- 6. a) Explain Central Dogma of Molecular biology with neat diagram.
- b) Describe features of DNA sequence analysis
- 7. a) Write about BLAST (Basic Local Alignment Search Tool)
- b) Explain the Needleman and Wunsch algorithm for global alignment
- 8. a) Define Multiple sequence alignment? What is the goal of Multiple sequence alignment?
- b) Explain simultaneous methods and progressive methods for multiple alignments?