R09

Code No: D0307

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech II - Semester Examinations March/April 2011
BIOINFORMATICS
(BIOTECHNOLOGY)

Time: 3hours **Max.Marks:60**

Answer any five questions
All questions carry equal marks
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1. Describe in brief about KEGG and state how it is useful in research. [12]

2. What are the various parameters used in Insilco gene finding approaches? Name two software used for gene finding. [12]

3. How SNP plays an important role in identifying disease gene? Explain. [12]

4. What are the heuristic methods employed for database searching? Explain Gapped Blast. What are the applications of such database searches? [12]

5. Define multiple sequence alignment. Describe in detail about methods employed in multiple sequence alignment. [12]

6. Describe the different levels of protein structure and discuss about protein-protein interaction. [12]

7. Explain the concept of conformational energy calculations and molecular dynamics. [12]

8. Write short notes on the following:
   a. Quantitative Structure-Activity Relationships (QSAR).
   b. Computer-assisted drug design. [12]

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