Code No: M2321/R07 **Set No. 1**

IV B.Tech I Semester Supplementary Examinations, Feb/Mar 2011
BIO INFORMATICS
(Bio-Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Write short notes on the following:
   (a) Domain and Domain name
   (b) Modem. [8+8]
2. Describe the Richard Owen's Contribution to Evolutionary Theory? [16]
3. Describe in detail about the Shot gun large sequencing method? [16]
4. What is sequence alignment? Describe the significance of sequence alignment in detail? [16]
5. What parameters you can find in PDB files. Explain with one example you have studied. [16]
6. Discuss the secondary databases of bioinformatics and discuss their applications in biological research. [16]
7. Describe in brief about the tools available in EXPASY. [16]
8. What is dynamic programming method. Explain with an example. [16]

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Code No: M2321/R07 **Set No. 2**

IV B.Tech I Semester Supplementary Examinations, Feb/Mar 2011
BIO INFORMATICS
(Bio-Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. What is Bioinformatics? Describe its scope in modern biology? [16]
2. Describe the Charles Darwin Contribution to Evolutionary Theory? [16]
3. Describe the following:
   (a) Physical mapping of DNA
   (b) Genetic mapping of DNA. [8+8]
4. What is sequence alignment? Describe the significance of sequence alignment in detail? [16]
5. What is a database ? How do you organize and manage biological databases? [16]
6. How secondary databases in bioinformatics differ in organization and management from primary databases. Explain with examples. [16]
7. Describe in brief about the tools to find out secondary and tertiary structures of proteins at EXPASY. [16]
8. Explain briefly about CLUSTALX & CLUSTALW programs. [16]

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Code No: M2321/R07 **Set No. 3**

IV B.Tech I Semester Supplementary Examinations, Feb/Mar 2011
BIO INFORMATICS
(Bio-Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. What is File Transfer Protocol (FTP)? Describe different types of FTP's? [16]
2. Describe the Richard Owen's Contribution to Evolutionary Theory? [16]
3. Describe the following:
   (a) Physical mapping of DNA
   (b) Genetic mapping of DNA. [8+8]
4. Describe the steps in Needlemen-Wunsch algorithm for Global sequence alignment? [16]
5. Discuss about the molecular modeling databases that are available on internet and state their importance? [16]
6. Discuss the applications of bioinformatics tools available in Swissprot. [16]
7. Describe in brief about EXPASY and state its applications in bioinformatics. [16]
8. Explain how you will trace out different types of mutations using multiple sequence alignments. [16]

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Code No: M2321/R07 **Set No. 4**

IV B.Tech I Semester Supplementary Examinations, Feb/Mar 2011
BIO INFORMATICS
(Bio-Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Describe the following:
   (a) Routers
   (b) Fully Qualified Domain Name (FQDN). [8+8]
2. Describe the Charles Darwin Contribution to Evolutionary Theory? [16]
3. What is genome sequencing? Describe its application? [16]
4. Describe the FAST algorithm? [16]
5. Define Database? Briefly explain the biological databases? [16]
6. Discuss briefly the search and analysis tools available in PIR. [16]
7. Describe in brief about the tools available in EXPASY. Explain them with suitable examples. [16]
8. Explain briefly about CLUSTALX & CLUSTALW programs with an example. [16]

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