Register Number.....

B.TECH. DEGREE EXAMINATIONS: NOVEMBER 2009

Fifth Semester

BIOTECHNOLOGY

U07BT506: Bioinformatics

Time: Three hours **Maximum Marks: 100**

Answer ALL the Questions:-

PART A (10 x 1 = 10 Marks)

1. TCP/IP stands for

   a. Transfer control project / internet project

   b. Tele control protocol/internet protocol

   c. Transmission control protocol/intranet protocol

   d. Transmission control protocol/internet protocol

2. Which one of the following is not a search engine?

   a. Google b. MSN c. Yahoo d. Firewall

3. Which one is not a process in data life cycle?

   a. Data acquisition b. Data archiving c. Data creation d. Data manipulation

4. Which key is used to uniquely identify the record in a table

   a. Primary key b. Candidate key c. Foreign key d. Super key

5. The online database for genetic disease, located through the NCBI Web site, is called what?

   a. ExPASy b. RCSB c. PSIPRED d. OMIM

6. To make a multiple sequence alignment, the sequences are saved in FASTA format in a text document, then copied and pasted into what program?

   a. BLAST b. ClustalW c. PSIPRED d. Swiss-PdbViewer

7. UPGMA

   a.Un weighted Pair Group Arithmetic Mean b.Un weighted Poor Group Arithmetic Mean

   c.Uncontrolled Pair Group Arithmetic Mean d.Un weighted Poor Group Mean Arithmetic

8. Algorithm used for tree drawing

   a. Topology b. BLAST c. FASTA d. Parsimony

9. Order of Micro array

   a. Spotting-scanning-Hybridization b. Spotting-Hybridization -scanning

   c. Hybridization -Spotting-scanning d. scanning-Hybridization -Spotting

10. INDELS

a. Integrated DNA ELISA
b. Insertion deleted sequence
c. Insertion deletion substitution
d. Insertion duplication lethal scaring

PART B (10 x 2 = 20 Marks)

11. Comment on MODEM.
12. Write the role of TCP.
13. What is STS?
14. Comment on KEGG.
15. Define Local alignment.
16. What is e-value?
17. Differentiate between routed tree and unrooted tree.
18. Define mutants.
19. List out eh salient feature of Microarray.
20. Write short notes on Metablomics.

PART A (5 x 14 = 70 Marks)

21. (a) Give an account of search engines and search tips to retrieve information.

(OR)

(b) What are the hardware and software requirements to surf the web?

22. (a) Explain various categories of data models?

(OR)

(b) Write about the various file formats of biological data.

23. (a) Explain the working of dynamic programming algorithms and its extension in multiple sequence alignment.

(OR)

(b) What is multiple sequence alignment? Explain with CLUSTAL W.

24. (a) What is mutation? Explain substitution, insertion and deletion Mutations.

(OR)

(b) Explain the construction tree using distance matrix.

25. (a) What is DNA chip? Explain the methodology.

(OR)

(b) Explain the Historical back ground of systems Biology.

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