

PAPER CODE:

MAX.MARKS:50.

DATE:

TIME: 2HRS.

PART – A

ANSWER ALL THE QUESTIONS:

10 x 1 = 10 MARKS

1. Bioinformatics is a combination of:

- A) Biology and Chemistry B) Biology and Computer Science C) Physics and Biology D) Chemistry and Computer Science

2. Which of the following is a protein structure database?

- A) GenBank B) EMBL C) PDB D) DDBJ

3. BLAST is used for:

- A) Protein structure prediction B) Sequence alignment and similarity search C) Drug design D) Gene cloning

4. The central dogma of molecular biology is:

- A) DNA → RNA → Protein B) RNA → DNA → Protein C) Protein → RNA → DNA D) DNA → Protein → RNA

5. Which database stores nucleotide sequences?

- A) Swiss-Prot B) GenBank C) PDB D) KEGG

6. Statistics is mainly concerned with:

- A) Individual facts B) Numerical data C) Stories D) Opinions

7. Which of the following is a limitation of statistics?

- A) Deals with qualitative data alone B) Gives exact results always C) Deals with aggregates only D) Never helps in decision -making

8. Histogram can be drawn only for:

- A) Discrete frequency distribution B) Continuous frequency distribution C) Cumulative frequency distribution D) Relative frequency distribution

9. When successive mid-points in a histogram are connected by

straight lines, the graph is called a:

- A) Histogram B) Ogive C) Frequency curve D) Frequency polygon

10. Which of the following is qualitative data?

- A) Height B) Weight C) Gender D) Income

PART – B

ANSWER ANY TWO OF THE FOLLOWING:

5 X 2 = 10 MARKS

11. Write a short note on BLAST and FASTA?

12. Explain the Gene Prediction rules and software?

13. Explain the limitations of statistics?

14. Represent the following data by a simple bar diagram?

Year	1974	1975	1976	1977	1978
Production (in tones)	45	40	44	38	55

PART – C

ANSWER ANY THREE OF THE FOLLOWING:

3 x 10 = 30 Marks

15.a) Describe the Genome, Transcriptome and Proteome? (or)

b) Describe the Primary and Secondary Databases?

16.a) Explain in detail about Structure Database? (or)

b) Explain in detail about Data Base Searching?

17. a) Explain classification and tabulation of data. State the rules for preparing a good statistical table? (or)

b) Represent the following data by mean of percentage bar diagram.

Year	1980	1981
Raw material	2160	2700
Labour	540	870
Direct expenses	360	360
Factory expenses	360	360
Office expenses	180	270
Total	3600	4560