Total No. of Questions: 11]

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BPP-1085

M.Sc. (Previous) Examination, 2022 MICROBIOLOGY

Paper - IV

(Biostatistics and Computer Applications and Bioinformatics)

Time: 3 Hours [Maximum Marks: 75

Section-A (Marks: $2 \times 10 = 20$)

Note: Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

Section–B (Marks : $5 \times 5 = 25$)

Note: Answer all five questions. Each question has internal choice (Answer limit200 words). Each question carries 5 marks.

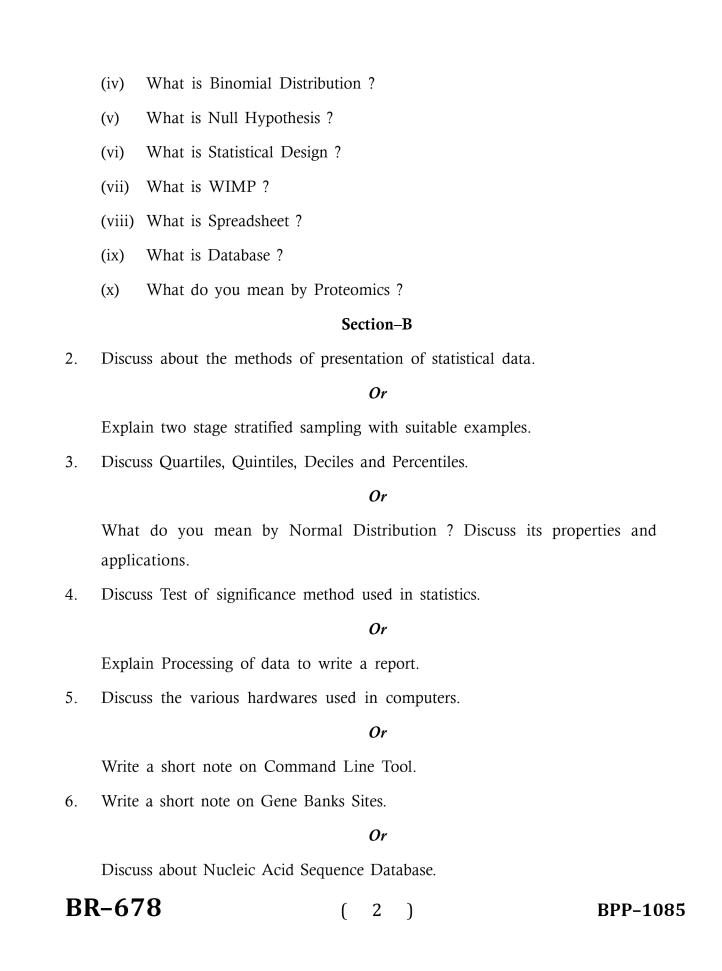
Section–C (Marks: $10 \times 3 = 30$)

Note:— Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

Section-A

- 1. (i) Define Random Sampling.
 - (ii) What are Secondary Data?
 - (iii) What is Mean Deviation?

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Section-C

- 7. Describe various types of graphical representation of data with suitable example.
- 8. Calculate the Mode for the following data:

No. of Plates	1-5	6-10	11-15	16-20	21 – 25
No. of Cells	7	10	16	32	24

9. Test whether the prevalance of carrier of Covid-19 virus is associated with sex:

Sex	No. of carriers	No. of Non - carriers	Total
Male	56	31	87
Female	18	6	24
Total	74	37	111

(The tabulated value of ψ^2 at $\alpha=0.05$ and one degree of freedom is = 3.411).

- 10. Discuss the use of computers in various fields of microbiology.
- 11. Write short notes on the following:
 - (i) FASTA
 - (ii) Genome Sequencing