

M.Sc. (Microbiology) (CBCS Pattern) Semester-IV
PSMBT-16 - Paper-IV : Biostatistics and Bioinformatics

P. Pages : 1

Time : Three Hours



GUG/W/24/11411

Max. Marks : 80

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- 1.** Define Probability, its elementary properties, types, rules, and applications to solve biological problems. **16**

OR

- a) Chi-square test and applications. **8**
- b) Student's t test and applications. **8**

- 2.** Define hypothesis, Explain different types of Hypothesis and types of errors. **16**

OR

- a) Analysis of variance. **8**
- b) Pearson's coefficient of correlation. **8**

- 3.** Databases – definition, biological databases, types and examples data base management system (DBMS). **16**

OR

- a) Expressed sequence tags. **8**
- b) Homology and analogy. **8**

- 4.** What are biological databases? Explain primary databases. **16**

OR

- a) BLAST and FASTA **8**
- b) Different approaches for EST analysis. **8**

- 5.** Write a short note on:

- a) Central tendency **4**
- b) Regression **4**
- c) Protein Data Bank **4**
- d) Pharmacogenomics **4**
