

AQ-913

M.Sc. Semester—II (CBCS Scheme) Examination

MICROBIOLOGY

(Biostatistics, Bioinformatics and Computer Applications)

Paper—V

Time : Three Hours]

[Maximum Marks : 80

Note :— ALL questions are compulsory and carry equal marks.

1. Weekly expenditure of 100 families from a village is given in the following table. Find out the Mean, Mode and Median : 16

Weekly expend (in Rs.)	No. of Families
0—10	14
10—20	23
20—30	27
30—40	21
40—50	15

OR

Describe measures of dispersion with respective formulae, merits and de-merits. 16

2. Find out the coefficient of correlation between heights of Fathers and Sons from the following data : 16

Height of Fathers (in inches) (x)	Height of Sons (in inches) (y)
65	67
66	68
67	66
68	69
69	72
70	72
71	69

OR

- (a) Describe the significance of "Test of Significance" exemplifying any two methods. 8
- (b) Describe types of correlation. Elaborate two methods used for studying correlation. 8
3. Elaborate function of input and output devices. Add notes on IP address. 16

OR

- (a) Explain microbiological applications of computer. 8
- (b) Explain in detail various types of search engines. 8

4. What is role of bio and chemo informatics in drug designing ? Comment on non-redundant database. 16

OR

Describe in detail nucleic acid and protein sequence database. 16

5. Describe utility of BioPerl, BioJava and BioPython as softwares in bio informatics. 16

OR

- (a) Describe pairwise alignment and gap penalty. 8
- (b) Comment on human genome project. 8