

6. (a) Discuss Sigma Plotters in details and its uses. **10**
- (b) Discuss Multiple Sequences Alignment and BLAST Software used in analysis of DNA Sequences. **10**
7. What do you mean by Basic and High Level Language ? Discuss the C and Perl Language in detail. **20**
8. (a) Explain the role of Bioinformatics in the field of Biotechnology. **10**
- (b) How Grouped Data can be represented Graphically ? Explain by giving suitable examples. **10**

No. of Printed Pages : 04

Roll No.

AA-334

M. Sc. EXAMINATION, Dec. 2018

(First Semester)

(Re-appear Only)

BIOTECHNOLOGY

BT-507-MS

Biostatistics and Computer Application

Time : 3 Hours]

[Maximum Marks : 100

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt any *Five* questions. All questions carry equal marks.

1. Calculate r' regression coefficient and test of significance of following given data : **20**

| No. of Branches | No. of Clusters |
|----------------------------|----------------------------|
| 6 | 13 |
| 7 | 14 |
| 8 | 15 |
| 9 | 17 |
| 10 | 16 |
| 11 | 20 |
| 12 | 19 |
| 13 | 18 |
| 14 | 21 |
| 15 | 22 |

2. (a) Discuss primary and secondary storage devices of data in computer. **10**
- (b) Explain the flow charts and its advantages. How this can be drawn by using research problem ? **10**

3. Calculate Mean and SD of following data : **20**

| Variable | Frequency |
|-----------------|------------------|
| 5 | 2 |
| 10 | 4 |
| 15 | 6 |
| 20 | 6 |
| 25 | 10 |
| 30 | 10 |
| 40 | 10 |
| 45 | 06 |
| 50 | 04 |
| 60 | 02 |

4. (a) What do you mean by χ^2 test ? How this can be obtained and enumerate the hypothesis on which it is based ? **10**
- (b) How SE and SEM can be calculated ? **10**
5. Explain the following : **5×4=20**
- (a) Null Hypothesis
- (b) Median
- (c) Bubble Sort
- (d) Correlation Coefficient.