

Exam. Code : 107402

Subject Code : 1841

B.Sc. (Bio Technology) 2<sup>nd</sup> Semester

BIostatistics

Paper—BT-5

Time Allowed—3 Hours] [Maximum Marks—40

**Note :-** Attempt **FIVE** questions in all selecting at least one from each Section. Show all the calculations clearly if required. Attempt all the parts of a question together. All questions carry equal marks.

**SECTION—A**

1. Calculate variance of the following data : 2, 4, 6, 8, 10.
2. Calculate mean and standard deviation of the following data : 2, 2, 2, 2, 2

**SECTION—B**

3. Write notes on :—
  - (a) Addition law of Probability
  - (b) Bayes theorem.
4. Explain :—
  - (a) Conditional Probability
  - (b) Independent events.

**SECTION—C**

5. With examples differentiate between linear correlation and regression.
6. Determine correlation between X and Y :

X	Y
2	6
4	4
6	2

**SECTION—D**

7. What is Chi square test ? How is it used for association of attributes ?
8. Explain Null and alternate hypothesis.