Roll No…….. **Total No. of Printed Pages: [01]**
Total No. of Questions: [13]

B. Pharmacy (Semester – 8th)
BIOSTATISTICS AND RESEARCH METHODOLOGY
Subject Code: BP801T
Paper ID: [17170140]

Time: 03 Hours **Maximum Marks: 75**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 9 questions of 5 marks each. The student has to attempt any 7 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a) Find the median of the following:- 4,17,77,25,22,23,92,82,40,24,14,12,67,23,29
b) Weights in mg of tablets in a sample data are 110,122,109,121,105 Find out the Sample mean?
c) Calculate range for the following data values. 45,55,63,76,67,84,75,48,62,65
d) Find mode :- 12,15,12,18,20,18,18,15,12
e) Define Null Hypothesis.
g) Find the standard deviation of the following data- 2,4,6,8,9,10,13
h) Define Quasi Experimental Research Design
i) Write the uses of graphs in health research.
j) Write the role of statistics in health research.
k) Write the merits of arithmetic mean.

Section – B **(5 marks each)**

Q2. Define Measure of Dispersion and write its types.
Q3. What is Non - Parametric tests? Mention its types.
Q4. Calculate the correlation coefficient of the given data.

X	12	15	18	21	27
Y	2	4	6	8	12

Q5. Write various types of Graphs
Q6. Write the role of statistics in health research
Q7. Difference between paired and unpaired test
Q8. Define chi square test and write its application.
Q9. Difference between Correlation and Regression
Q10. Explain factorial design and write its advantage

Section – C **(10 marks each)**

Q11. What are the Sampling methods? Explain various methods in detail.
Q12. What is Experimental Research Design? Write its type and importance.
Q13. Write different parts of Research Report.