Enrollment No: _____ Exam Seat No:_____

C.U.SHAH UNIVERSITY

Summer Examination-2022

Subject Name: Biostatistics and Research Methodology-Theory

Subject Code: BP801T **Branch: B.Pharm**

Semester: 8 **Date: 02/05/2022** **Time: 11:00 To 02:00** **Marks: 75**

Instructions:

(1) Use of Programmable calculator & any other electronic instrument is prohibited.
(2) Instructions written on main answer book are strictly to be obeyed.
(3) Draw neat diagrams and figures (if necessary) at right places.
(4) Assume suitable data if needed.

Q-1 **Attempt the following questions:** **(20)**

a) Define statistics and their importance **2**
b) Define the probability of an event. **2**
c) Define Range and advantages of range. **2**
d) Define sampling and sample size **2**
e) Explain Binomial distribution **2**
f) What is the Mann Whitney test used for? **2**
g) Define the Blocking **2**
h) Explain the Counter plot graph. **2**
i) Explain SPSS. **2**
j) Explain Standard deviation. **2**

Attempt the following questions:

Q-2 **Attempt any two of following : (2*10 Marks = 20 Marks)** **(20)**

A What is hypothesis? What are different types of hypothesis? Explain how you will formulate a hypothesis with a suitable example. **10**
B Discuss various types of graphs for representation of the research data. **10**
C Write a brief note on factorial design. **10**

Q-3 **Attempt any Seven of following : (7*5 Marks = 35 Marks)** **(35)**

A Explain different types of correlation. **5**
B Discuss various phases in designing clinical trial with examples. **5**
C Find the mean value of the following data. **5**

Size(x)	2	4	6	8	10	12	14	16
Frequency(f)	1	3	5	2	2	6	4	2

D What is Plagiarism? What are the needs for research **5**
E Write a note on ANOVA (Analysis of Variance). **5**
F Explain frequency distribution and their classification. **5**
G Explain different observational study designs. **5**
H Classify and explain different types of t tests. **5**
I Write a brief note on central composite design. **5**