PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2019
(Sixth Semester)

Branch - MICROBIOLOGY

CORE ELECTIVE - II: BIOSTATISTICS AND RESEARCH METHODOLOGY

Time : Three Hours   Maximum : 75 Marks

SECTION-A (20 Marks!
Answer ALL questions
. ALL questions carry EQUAL marks   (10 x 2 = 20)

Define the **following:**

1   Data.
2   Tabulation.
3   Frequency Curve.
4   Mode.
5   Linear Correlation.
6   Hypothesis.
7   Graph.
8   Regression.
9   Research.
10   Review of Literature.

SECTION - B (25 Marks!
Answer ALL Questions
ALL Questions Carry EQUAL Marks (5 x 5 = 25)

11 a Define and write the scope of biostatistics.

OR

b Draw a histogram and a frequency polygon for the following data.

Life (in days)	0-50	50-100	100-150	150-200	200-250	250-300
Number of rats	10	20	15	20	15	10

Find median from the following weight of insects in grams.

Weight of insects (gm)	0-10	10-20	20-30	30-40	40-50
Frequency	5	10	15	8	6

OR

b Calculate mean (x) from the following data.

Roll Nos.	1	2	3	4	5	6	7	8	9	10
Marks	33	35	44	34	41	45	39	46	36	47

13 a Write the difference between correlation and regression.

OR

b Classify Correlation.

14 a Describe the characteristics and uses of Chisquare test.

OR

b Give an account on hypothesis testing.

15 a   Write different sources of data.

OR

b Describe the structure of research project.

SECTION - C (30 Marks)
Answer any THREE Questions
ALL Questions Carry EQUAL Marks $(3 \times 10 = 30)$

16 Calculate mean, median, mode from the following data.

Size of items	6	7	8	9	10	11	12
Frequency	3	6	9	13	8	5	4

17   Write about graphical representation and diagrammatic representation.

18   Find out the coefficient of correlation between x and y.

X	1^	2	3	4	5	6	7	8	9
Y	12	11	13	15	14	17	16	19	18

19 A certain drug was administered to 500 people out of a total of 800 included in the sample to test its efficiency against typhoid. The results are given below. Find out the effectiveness of the drug against the

diseases, (the table value of $ for 1 df at 5% level of significance is 3.84).

	Typhoid	Not Typhoid	Total
Administering the drug	200	300	500
without administering the drug	280	20	300
Total	480	320	800

20 Describe processing and analysis of data.

Z-Z-Z   END