PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2017
(Sixth Semester)

Branch - MICROBIOLOGY

CORE ELECTIVE - II BIOSTATISTICS & 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   Biostatistics.

2   Write three methods of collecting data.

3   Captions.

4   Median. * ' •

5   Correlation.

6   Frequency polygon.

7   Simple regression. .

8   Chi square test.

9   Research problem.

10   Sources of data collection.

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

11a   . Give a brief account on classification.

OR

b Draw a histogram for the following data.

Marks:	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of students:	5	7	10	15	13	10	6

12 a . Calculate the mode for the following distribution.

Size:	0-10	10-20	20-30	30-40	40-50	50-60
Frequency:	5	11	19	• 21	16	10 *

60-70	70-80	80-90	90-100
8	6	3	1

OR

■b Compute mean for the following data by arrumed mean method.

No. of children bom Q ^ per family (x):		2	3	4		5	6
No. of families (f):	7	7		TO 5	3		2	1

13 a Calculate Pearson's correlation coefficient

X	12	18	16	15	12	10	20	17
Y	6	10	9	8	9	8	12	10

OR

b^J Explain about regression equations.

14 a Write a short account on t-test.

OR

b A coin is tossed 100 times of which head comes 60 times and tail 40 times. Would you accept the hypothesis that the coin is normal having no bias for either head or tail. (At 5% level of significance an 1 degree of freedom the table value is 3.84).

15 a Describe presentation of data.

OR

b Describe review of literature.

SECTION - C (30 Marks)
Answer any THREE Questions
ALL Questions Carry EQUAL Marks (3 x 10 = 30)'

16   Write about functions and limitations of biostatistics.

17   Compute standard deviation from the following data.

Litter rise :	3-4		5	6	7
Frequency:	10	27	22	4	1

18   Find out the coefficient of correlation in the following data.

Age of a fish (days):	5*	10	15	20	25	30	35
Weight in gms:	3	7*	12	15	20	25	30

19   Memory capacity of 9 students was tested before and after training. State at 5% level of significance whether the training was effective from the following scores: (At 8 degrees of freedom, 5% level of significance table value is 15.507).

Students :	r '2	3	4	5	6	7	8	9
Before :	10	15	9	3	7	12	16	17	4
After:	. 12	17	. 8	5	6	11	18*	20	3

20   Describe the structure of research project.

Z-Z-Z   . END