

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

Branch - MICROBIOLOGY

BIostatISTICS & RESEARCH METHODOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks!)

Answer ALL questions

ALL questions carry EQUAL marks (10x2 = 20)

- 1 Biostatistics.
- 2 Frequency Polygon.
- 3 Measures of Central Tendency.
- 4 Standard Deviation.
- 5 Correlation.
- 6 Regression line of X on Y.
- 7 Null hypothesis.
- 8 Level of significance.
- 9 Review of Literature.
- 10 Processing of Data.

SECTION - B (25 Marks!)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5x5= 25)

- 11 a Write the functions of statistics.

OR

- b Write the advantages of diagrammatic representation.

- 12 a Calculate mean and median from the following data:

Daily Wages (in Rs.)	60	80	100	120	160	180	200
No. of Persons	5	8	12	22	10	7	6

OR

- b The following table gives the monthly income of 10 employees in an office. Calculate mean and median.

Income: 4780 5760 6690 7750 4840 4920 6100 7810 7050 6950

- 13 a Explain the types of correlation.

OR

- b Calculate Karl Pearson's coefficient of correlation for the following data:

X:	15	18	20	24	30	35	40	50
Y:	85	93	95	105	120	130	150	160

- 14 a Write the steps in testing of hypothesis.

OR

- b The researcher are interested to determine that preconception use of folic acid and race are independent. The data is given below. Test whether use of folic acid and race are independent.

	Use of folic acid		Total
	Yes	No	
White	260	299	559
Black	15	41	56
	7	14	71

15 a Describe review of literature and its importance in research.

OR

b Explain different sources of data.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16 Describe the methods of collecting primary data.

17 Calculate mean and standard deviation from the following frequency distribution:

Class:	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency:	7	32	56	106	180	164	86	44

18 Calculate two regression equations for the following data:

Age:	56	42	36	47	49	42	60	72	63	55
Blood Pressure:	147	125	118	128	145	140	155	160	149	150

19 Below are given the gain in weights (in kgs) of pigs fed on two diets A and B.

Diet A: 25 32 30 34 24 14 32 24 30 31 35 25

Diet B: 44 34 22 10 47 31 40 30 32 35 18 21 35 29 22

Test if the two diets differ significantly as regards their effect on increase in weight.

20 Describe Processing and analysis of data.

Z-Z-Z

END