14BCP11

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION MAY 2019
(Third Semester)

Branch - **BIOCHEMISTRY**

BIOSTATISTICS

Time: Three Hours Maximum: 75 Marks

SECTION -A (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

1 a Write a short note on Ogive & Frequency polygons.

OR

b Explain the different types of bar diagram.

2 a Define Range, Mode, Median.

OR

b The first four central moment of a distribution are 0, 2.5, 0.7 and 18.75. Test the Skewness and Kurtosis of the distribution.

3 a Give a note on Binomial distribution & its contents.

OR

b State and briefly explain with an example the addition and multiplication theorems of probability.

4 a (i) Define Standard Error.
(ii) What are its properties & uses?

OR

b (i) What is Chi-Square test?
(ii) Write the characteristics & conditions for the use of chi-square test.

5 a Define Correlation and its types.

OR

b Explain the properties of regression lines.

SECTION -B (45 Marks)

Answer any **THREE** questions

ALL questions carry **EQUAL** Marks (3 x 1 5 = 45)

6 Explain the various types of data.

7 a) List the difference between mean deviation & standard deviation.

Size	2	4	6	8	10	12	14	16
Frequency	2	2	4	5	3	2	1	'1

8 What is a normal distribution? Enlist the properties of Normal Distribution (normal curve).

9 A group of seven week old chickens reared on a high protein diet weigh 13,16,12,17,15,15 and 17 ounces, a second group of 5 chickens similarly treated except that they receive a low protein diet weigh 9,11,15,11 and 14 ounces. Test whether there is significant evidence that additional protein has increased the weight of chickens (the table value of t for v=10 at 5% level of significance is 2.23).

10 Y is weight of potassium bromide which will dissolve in lOOg, of water at x°c are given below, fit an equation of the form y=a+bx by the method of least square Use this relation to estimate weight (y) when x=150°c.

Heat (°C)	30	50	60	80	100	no	1130
TX TT _ 1_ _ \	1 r\r\	nnn	7AA	A A A	cnn	Ann	■mn