

**Avinashilingam Institute for Home Science and Higher Education for Women
Coimbatore – 641 043
Bachelor's Degree Examination – November 2017**

V Semester

**Class : III UG
Major : Zoology**

**Time : 3 Hours
Max. Marks : 100**

15BZOC16 Biostatistics

**Part – A
Choose the Correct Answer**

10 x 1 = 10

1. Pie chart represents the components of a factor by
 - a. percentages
 - b. angles
 - c. sectors
 - d. average
2. The values recorded in an experiment or observation is called
 - a. Sample
 - b. data
 - c. variable
 - d. element
3. Which among the following is used to compare the frequency distributions of more than one set of data?
 - a. frequency curve
 - b. frequency polygon
 - c. Ogive curve
 - d. Histogram
4. The arrangement of data on the basis of common characteristics is
 - a. classification
 - b. tabulation
 - c. presentation
 - d. distribution
5. An expected value of random variable is equal to its
 - a. variance
 - b. standard deviation
 - c. mean
 - d. covariance
6. Which measure of central tendency is derived from the most common value?
 - a. mean
 - b. median
 - c. mode
 - d. covariance
7. If arithmetic mean is multiplied to coefficient of variation then resulting value is
 - a. co efficient of deviation
 - b. coefficient of mean
 - c. standard deviation
 - d. variance
8. Number of emergency cases in a hospital for five days is as 12, 15, 18, 16, 14, then the variance of sample is
 - a. 5
 - b. 20
 - c. 4
 - d. 15
9. The regression lines cut each other at the point of
 - a. average of x and y
 - b. average of x only
 - c. average of y only
 - d. the median of x and y
10. A measure of the strength of linear relationship that exists between two variables is called
 - a. slope
 - b. intercept
 - c. correlation coefficient
 - d. regression equation

Part – B

5 x 6 = 30

Answer the following
Answer should not exceed 400 words or two pages

11.a. Differentiate between primary and secondary data.

(Or)

11.b. Write notes on the sources of data.

12.a. Specify the types of tables.

(Or)

12.b. What is diagram? Add a note on its significance and limitations.

13.a. Compute mean for the following data by short method.

No. of Children (x)	0	1	2	3	4	5	6
No. of families (f)	7	7	10	5	3	2	1

(Or)

13.b. What is median? Enlist its merits and demerits.

14.a. Calculate mean deviation from the following data.

X	2	4	6	8	10
F	1	4	6	4	1

(Or)

14.b. Co efficient of variation of two series are 75% and 90% and their standard deviations are 15 and 18 respectively. Find their mean (ans = 20)

15.a. Explain the regression analysis.

(Or)

15.b. Enumerate the objectives of correlation analysis.

Part – C

5 x 12 = 60

Answer the following
Answer should not exceed 800 words or four pages

16.a. Write an essay on the methods of data sampling.

(Or)

16.b. Elaborate on sampling and non sampling errors.

17.a. Describe in detail the parts of a table.

(Or)

17.b. Illustrate the graphical representation of frequency distribution.

18.a. Calculate mean, median and mode from the following frequency distribution of marks at a test in statistics:

Marks	5	10	15	20	25	30	40	45	50
No. of Students	20	43	75	76	72	45	9	8	50

(Or)

18.b. Write an essay on Harmonic mean.

19.a. Find the standard deviation and coefficient of variation from the following data.

Wages	No. of Workers
Upto Rs.10	12
Upto Rs.20	30
Upto Rs.30	65
Upto Rs.40	107
Upto Rs.50	157
Upto Rs.60	202
Upto Rs.70	222
Upto Rs.80	230

(Or)

19.b. Highlights on standard deviation and its merits and demerits.

20.a. Find out the co efficient in the following.

X	5	10	15	20	25	30	35
Y	3	7	12	15	20	25	30

(Or)

20.b. From the following data, obtain the regression equations by taking deviations from the actual means of X and Y series.
