

**MELVISHARAM - 632 509.**

**SEMESTER EXAMINATIONS, NOVEMBER - 2018**

**B.Sc., BIOCHEMISTRY**

**SEMESTER V**

U14SBC501 – BIOSTATISTICS - I (SBS - III)

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Time: Three Hours	Maximum: 60 Marks
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SECTION - A (10 X 1 = 10 Marks)

**Answer ALL Questions.**

1. 'Statistics may be called the science of counting' is the definition given by.

- a) Croxton
  - b) A.L. Bowley
  - c) Boddington
  - d) Webster
2. The Process of getting values and facts from an observation or experiment is called.

- Collection of data
- Tabulation of data
- Classification of data
- All the above

3. The formula of Arithmetic mean is

- a)  $\text{Log Gm} = \sum \log x/N$       b)  $\text{HM} = N/\sum 1/X$   
c)  $\bar{X} = \sum X/N$       d)  $\bar{X} = \sum X^2/N$

4. Sum of the deviations about mean is.

- a) Zero      b) minimum      c) maximum      d) one

5. Which of the following is a unitless measure of dispersion?

- | a) Standard deviation       | b) Mean deviation |
|-----------------------------|-------------------|
| c) Coefficient of variation | d) Range          |

6. is the difference between the lowest value & highest value of a set of data

- a) Average      b) Range      c) Mean      d) Median

7.  $p$  is the proportion of times an event occurs in a set of trials

- |                             |                       |
|-----------------------------|-----------------------|
| a) Probability              | b) Range              |
| c) Coefficient of Variation | d) Standard deviation |

8. Quartile deviation is \_\_\_\_\_ method

- Measures of variation
- Measures of central tendency
- Measures of deviation
- Measures of dispersion

## 9. Correlation coefficient as independent of change of

- |                     |          |
|---------------------|----------|
| a) Origin           | b) Scale |
| c) Origin and Scale | d) None  |

10. If the ratio of change between two variables is uniform, then the Correlation is said to be

- a) Partial Correlation      b) Negative Correlation
- c) Linear Correlation      d) None of these

**SECTION - B (5 X 4 = 20 Marks)**

**Answer ALL Questions.**

11. a) Discuss the nature and scope of Statistical Method.

(Or)

b) Explain the general rules for constructing diagrams.

12. a) Give the merits and demerits of median.

(Or)

b) Find median for the following data: 25, 18, 27, 10, 8, 30, 42, 20, 53.

13. a) The length of 60 fruits of chilli varieties are given below calculate the Standard Deviation.

Length (in mm)	10	20	30	40	50	60
No of fruits	8	12	20	10	7	3

(Or)

- b) Give an account on Variance.

14. a) The weight of fishes shows the range of variable 88gms in the first Quartile ( $Q_1$ ) and 93gms in the third Quartile ( $Q_3$ ). Find out the Quartile deviation.

(Or)

- b) Write a note on Probability.

15. a) Define Karl Pearson's coefficient of correlation. Interpret  $r$ , when  $r = +1, -1$  and  $0$ .

(Or)

- b) Discuss about Linear and Non-Linear Correlation.

#### SECTION - C (3 X 10 = 30 Marks)

Answer **ANY THREE** Questions.

16. Explain about the Diagrammatic representation of data.
17. Give an account on characteristics of good average and a note on mode.
18. Calculate Standard deviation.

The following data are the height of 10 Students.

60, 60, 61, 62, 63, 63, 63, 64, 64, 70

19. Explain the kinds theorems and basic concepts of Probability.
20. Define correlation and mention the uses of kinds of Correlation.

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