

**Avinashilingam Institute for Home Science and Higher Education for Women,  
(Deemed to be University) Coimbatore-641 043  
Bachelor's Degree Examination- November 2018  
I Semester**

**Class : I UG**

**Major : Commerce/B.Com C.A./B.Com P.A.**

**Time : 3 hrs**

**Maximum Marks : 100**

**18BCO101/18CC101/18BCP101  
Allied - I Business Statistics**

**Part - A**

**10X1=10**

**Circle the correct Answer**

1. Data which are collected for the first time are called
  - a. Secondary data
  - b. Primary data
  - c. Raw data
  - d. Grouped data
2. Classifying data on the basis of some attributes or characteristics are
  - a. Chronological
  - b. Geographical
  - c. Qualitative
  - d. Quantitative
3. Presentation of data in a geographical basis is called
  - a. Cartograms
  - b. Pie diagram
  - c. Pictogram
  - d. Histogram
4. Median is otherwise called as
  - a. First quartile
  - b. Second quartile
  - c. Third quartile
  - d. Fourth quartile
5. The value which occurs the greatest number of times in a series is
  - a. Mode
  - b. Median
  - c. Geometric mean
  - d. Quartile
6. Measures of deviation based on all the items of distribution is called
  - a. Standard Deviation
  - b. Quartile Deviation
  - c. Mean deviation
  - d. Range
7. The co-efficient of correlation was developed by
  - a. Spearman
  - b. Karl Pearson
  - c. Fisher
  - d. Bowley
8. Correlation is an analysis of the relationship between
  - a. Variables
  - b. Fraction
  - c. Positives
  - d. All the above
9. If the ratio of change between two set of variables is same then it is called
  - a. Positive correlation
  - b. Negative correlation
  - c. Linear correlation
  - d. Non-linear correlation
10. Regression analysis reveals ----- relationship between two variables
  - a. Average
  - b. Direct
  - c. Indirect
  - d. None of the above

**Part - B**

**Answer the following**

**5X6=30**

**Answer should not exceed 400 words or two pages**

11. a. Explain the scope of Statistics.

(or)

11.b. Describe the methods of collecting Secondary Data

12. a. Distinguish between Classification and Tabulation.

(or)

12.b. Calculate the mean value of Income per day of families in a village from the following data:

Income (Rs.)	:	20	30	40	50	60	70	80
No. of Families	:	12	15	10	13	20	14	16

13. a. Compute the median from the following data

Mid value	:	5	15	25	35	45	55	65	75
Frequency	:	10	12	15	37	52	35	11	4

(or)

13.b. Find out the value of quartile deviation and co-efficient of quartile deviation.

Marks	:	25	30	40	50	60	70	80	90
No. of students	:	4	7	12	8	9	15	7	3

14. a. Calculate Standard Deviation from the following data

39 46 52 75 82 93 97

(or)

14. b. Explain the types of Correlation.

15. a. Discuss the importance of Regression Analysis

(or)

15. b. Calculate rank co-efficient of correlation for 12 students in 2 different subjects.

Subject I	:	8	7	10	1	4	5	3	6	9	11	12	2
Subject II	:	2	4	9	3	12	11	8	1	7	6	5	2

**Part - C**

**Answer the following**

**5X12=60**

**Answer should not exceed 800 words or two pages**

16. a. Explain the characteristics and limitations of Statistics

(or)

16. b. Define Classification and explain the methods of it.

17. a. Draw less than and more than cumulative frequency curve from the following data

Marks	No. of students
10-20	4
20-30	6
30-40	10
40-50	15
50-60	22
60-70	19
70-80	9
80-90	8
90-100	7

(or)

17. b. Find out the Quartiles from the following data

Marks	No. of students
0-10	8
10-20	12
20-30	10
30-40	15
40-50	11
50-60	9
60-70	5

18. a. Calculate mean deviation and co-efficient of mean deviation from the following data.

Size of item	Frequency
0-20	4
20-40	8
40-60	10
60-80	15
80-100	20
100-120	5
120-140	9
140-160	11

(or)

18. b. Compute the co-efficient of correlation for the following data through Karl Pearsons co-efficient of correlation.

X : 25 35 45 52 20 33 40 30  
 Y : 20 15 10 14 23 18 22 30

19. a. The data relating to the marks obtained by 15 students in a class, for 2 subjects are given below calculate rank correlation

Subject A: 90 75 30 56 45 90 27 32 90 30 50 52 56 40 49  
 Subject B: 39 46 52 75 79 76 50 45 49 50 52 50 73 43 73

(or)

19. b. The details regarding the weight of students in 3 classes of a school are given below.

	Class I	Class II	Class III
No. of students	50	75	60
S.D. of the weights (kgms)	3.9	5.2	4.5
Average weight (kgms)	49	51	55

20. a. Find out the regression equations, X on Y and Y on X from the following data

X	Y
25	18
30	24
35	30
40	36
45	42
50	48
55	54

(or)

20. b. Find out the regression equations of incentives on production and production on incentives from the following data.

	Average	Standard Deviation
Incentives (in Rs. thousands)	45.5	8.5
Production (in thousand units)	96.4	11.3

$r=0.47$

also estimate the production for incentives 3.6.

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