**B.Sc. DEGREE EXAMINATION, APRIL 2016.**

**I YEAR — I SEMESTER**

**Major Paper I — DESCRIPTIVE STATISTICS**

**Time : 3 hours Max. Marks : 60**

**SECTION A — (10 × 1 = 10 marks)**

**Answer any *TEN* questions.**

1. Define Statistics
2. What do you mean by secondary data?
3. What is Bar diagram?
4. What are Ogives?
5. Calculate Median 27, 36, 28, 18, 35, 26, 20, 35, 40, 20
6. Calculate Combined Mean N1 = 200, N2 = 250, N3 = 300, X1 =25, X2 = 10, X3 =15
7. Write down the two regression lines.
8. Write down the formula for Spearman’s Rank correlation.
9. What is Contingency table?
10. Write down any two methods of studying Association of Attributies.
11. Write down the formula for Yule’s coefficient of Association.
12. Calculate Bowley’s Coefficient of Skewness Q1 = 22.69 Q2 = 34.21 Q3 = 45.91

**SECTION B — (5 × 4 = 20 marks)**

**Answer any *FIVE* questions.**

1. What are the various sources of collecting secondary data?
2. Draw Ogive curves for the following data and hence find the Median.

 Size : 10-20 20-30 30-40 40-50 50-60

 Freq: 20 60 100 150 75

1. Calculate Karl Pearson Coefficient of Skewness

Size : 0 -5 5-10 10-15 15-20 20-25 25-30 30-35 35 -40

Freq : 2 5 7 13 21 16 8 3

1. Explain Scatter Diagram.
2. What are the various measures of Association of Attributes.
3. The following are the runs scored by two batsman A, B in ten innings.

Batsman A : 42 17 83 59 72 76 64 45 40 32

Batsman B : 28 70 31 0 59 108 82 14 3 95

Who is the more consistent Batsman?

[P.T.O.]

1. Calculate Coefficient Correlation between age of cars and annual maintenance cost.

Age of Cars : 10 11 12 13 14 15 16 18 19 20

Annual

 Maintance : 52 60 63 65 68 70 82 93 94 96

cost

**SECTION C — (3 × 10 = 30 marks)**

**Answer any *THREE* questions.**

1. Discuss the various methods of collecting primary data.
2. What are different parts of a table? Prepare a blank table to show the distribution of population according to age, sex, Literacy, and marital status
3. Calculate the first four moments about the mean from the following data also calculate the value of β1 and β2.

Class interval : 0-10 10-20 20-30 30-40 40-50 50-60 60-70

Frequency : 5 12 18 40 15 7 3

1. Your are given the following information

|  |  |  |
| --- | --- | --- |
| Description |  X | Y |
| ARITHMETIC MEAN | 36 | 85 |
| STANDARD DEVIATION | 11 | 8 |

Coefficient of Correlation r = 0.66

Find the two regression equations.

1. From the following data prepare 2 x 2 table and using Yule’s coefficient of association, discuss whether there is association between literacy and unemployment.

Illiterate Unemployed 220 persons

Literate employed 20 persons

Illiterate employed 180 persons.

 Total Number of persons 500 persons

 **\_\_\_\_\_\_\_\_\_\_\_**