**SAINTGITS COLLEGE OF APPLIED SCIENCES**

**Second Internal Assessment Examination, October 2018**

**B.Com Third Semester (Computer Applications & Taxation)**

**Quantitative Techniques for Business - I**

Total: 80 marks Name ………………….

Time: 3 Hours Roll Number ……………

**Section A**

*Answer any 10 questions. Each question carries 2 marks.*

1. What is a statistical survey?
2. What do you mean by coefficient of variation?
3. What is Random Sampling?
4. What are statistical units?
5. Define Tabulation.
6. Define Statistics in the singular and plural sense.
7. What are quartiles?
8. What is combined mean? How is it computed?
9. Define Geometric Mean.
10. Ascertain the value of median if mean is 30 and mode is 28
11. What is Skewness. What are the different types of skewness.
12. Find Q3 from the following series: 10, 12, 27, 18, 8, 20

 **(10 X 2 = 20 marks)**

**Section B**

*Answer any 6 questions. Each question carries 5 marks.*

1. List out the differences between primary data and secondary data.
2. Explain the functions of statistics.
3. Explain how Lorenz Curve is used to study dispersion.
4. Find the missing frequency if mean is 28. Also find median.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Marks | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 |
| No: of students | 12 | 18 | 27 | ? | 17 | 6 |

1. List out the essential characteristics of an ideal average.
2. Locate mode from the following

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Class | 25 |  | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| frequency | 50 |  | 70 | 80 | 180 | 70 | 30 | 20 | 10 |

1. Mean and standard deviation of 100 items was found to be 60 and 5 respectively. Later on it was discovered that a correct item 50 was wrongly copied as 30. Find the correct mean and standard deviation.
2. Calculate mean deviation from mean and its coefficient:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age (above) | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 |
| No: of patients | 200 | 180 | 150 | 100 | 50 | 30 | 10 | 0 |

1. Calculate beta coefficient of skewness and kurtosis from the following : 2, 3, 7, 8, 10.

**(6 X 5 = 30 marks)**

**Section C**

*Answer any 2 questions. It carries 15 marks.*

1. Explain the techniques of data collection.
2. Find out the number of students securing B grade in the university examination from the following:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Marks out of 100 | 0-20 | 20-40 | 40-60 | 60-80 | 80-100 |
| No: of students | 5 | 26 | 85 | 54 | 30 |

 48% and above but less than 60% marks makes B grade.

1. Particulars regarding the income of two towns are given below:

|  |  |  |
| --- | --- | --- |
|  | Town A | Town B |
| Number of people | 600 | 500 |
| Average income | 175 | 186 |
| variance | 100 | 81 |

1. In which town is the variation in income greater?
2. Which town mobilises larger amount as income?
3. What is the combined standard deviation of the two towns put together?
4. Calculate arithmetic mean from the following:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Value  | Less than 10 | Less than 20 | Less than 30 | Less than 40 | Less than 50 | Less than 60 | Less than 70 | Less than 80 |
| frequency | 4 | 16 | 40 | 76 | 96 | 112 | 120 | 125 |

 **(2 X 15 = 30 marks)**



***Scan QR code for the answer scheme***