**B.Com V-Semester Examination**

**Statistics for Business Managers**

**Course No. UBCTE-508**

*Time Allowed: 21/2 Hours Maximum Marks: 80*

**Section- A**

**(5x3=15)**

**Note:** Attempt **all** the questions. Each question carries **three** marks. Answer to each question should be within 70-80 words.

1. What do you mean primary and secondary data?
2. Calculate the mean of these figures: 25, 28, 32, 26, 38, 35, 24, 23, 20, 42
3. Calculate range : 232, 228, 230, 218, 240, 255, 275, 285
4. What do you mean by correlation?
5. What do you understand by Index numbers?

**Section- B**

**(5x7=35)**

**Note:** Attempt all the questions. Each question carries **seven** marks. Answer to each question should be within 250-300 words.

1. What are the different methods of data collection?
2. There are 500 workers working in a factory. Their mean wage was calculated as 200. Later on it was found that the wage of two workers were misread as 100 and 20 instead of 80 and 220. Find the correct average?
3. Calculate standard deviation from the following:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Profits** | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 |
| **No. of companies** | 30 | 50 | 62 | 85 | 112 | 70 | 57 | 26 |

1. What are the advantages and limitations of coefficient of correlation?
2. What are the various characteristics of index numbers?

**Section- C**

**(2x15=30)**

**Note:** Attempt any **two** questions. Each question carries **fifteen** marks. Answer to each question should be within 500-600 words.

1. Discuss the followings:
2. Frequency polygon
3. Histogram
4. Ogive curve
5. Calculate mean and median from the following:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Class Interval** | 60-69 | 50-59 | 40-49 | 30-39 | 20-29 | 10-19 |
| **Frequency** | 13 | 15 | 21 | 20 | 19 | 12 |

1. Find quartile deviation and mean deviation from the following data:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Size** | 5 | 8 | 10 | 12 | 19 | 20 | 32 |
| **Frequency** | 3 | 10 | 15 | 20 | 8 | 7 | 6 |

1. Calculate Karl Pearson’ coefficient of correlation between the values of X and Y

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Import | 42 | 44 | 58 | 55 | 89 | 98 | 66 |
| Export | 56 | 49 | 53 | 58 | 65 | 76 | 58 |

1. Calculate index numbers from the following data by applying following methods:
2. Laspeyre’s ii) Paasche’s iii) Fisher’s

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Commodities** | **2010** | | **2016** | |
| **Price** | **Quantity** | **Price** | **Quantity** |
| **I** | 2 | 8 | 4 | 6 |
| **II** | 5 | 10 | 6 | 5 |
| **III** | 4 | 14 | 5 | 10 |
| **IV** | 2 | 19 | 2 | 13 |