

(4)

8. A Health Care Research Institute is interested to know the effects of a particular Sedative taken daily by elderly women. They tested and found out the results given below. Go through the results and apply appropriate statistical technique to interpret your results. 10

| How long the Sedative is taken (in month) | Hours of Sleeping (Daily) |
|---|---------------------------|
| 2   | 4                         |
| 1   | 3                         |
| 3   | 4                         |
| 2   | 3                         |
| 4   | 6                         |
| 5   | 5                         |
| 5   | 3                         |

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**BACHELOR OF ARTS EXAMINATION, 2018**

(2nd Year, 4th Semester)

**SOCIOLOGY****Research Orientation and Statistics in Sociology - II****Paper - 4.1**

Time : Two hours

Full Marks : 30

Use a separate Answer Script for each Module.

**MODULE - I**

- Write a short note on any *one* of the following : 5x1=5
  - Descriptive and Inferential statistics.
  - Difference between Skewness and Kurtosis with suitable examples.
- Given below the frequency distribution of body weights (kg). Determine whether the distribution is skewed. If so what is the nature of the skewness ?

| C.I   | Frequencies |
|-------|-------------|
| 51-53 | 5           |
| 54-56 | 7           |
| 57-59 | 14          |
| 6-62  | 28          |
| 63-65 | 15          |
| 66-68 | 8           |
| 69-71 | 3           |

10+5

(Turn Over)

( 2 )

3. What is the difference between a Bar graph and Histogram ? Give suitable examples. The following figures are the hottest daily temperatures (“ C) during the month of June at a particular coastal resort “ 20, 21, 19, 22, 22, 23, 23, 23, 24, 25, 25, 26, 27, 28, 25, 24, 24, 23, 22, 21, 22, 23, 23, 24, 25, 24, 25, 26, 27, 26

With the aid of a frequency table draw a histogram and frequency polygon for these temperatures. 5+10+15

4. What is a Pie Chart ? 5+10

Construct a Pie Chart for the following data :

Principal Exporting Countries of Cotton  
(1,000 bales) – 1995-96

| U.S.A.  | INDIA   | EGYPT   | BRAZIL | ARGENTINA |
|---------|---------|---------|--------|-----------|
| \$6,367 | \$2,999 | \$1,688 | \$650  | \$202     |

## MODULE - II

Answer *q.no. 5* and any *one* questions.

5. Write a short note on any one of the following : 5x1=5  
(a) Briefly compare between the Ordinal and Interval/ Ratio Measure of Dispersion.

( 3 )

- (b) State the Nature and Properties of Normal. Why is the Normal Curve important in Social Statistics ?

- (c) Bivariate Association.

6. A fresher in Sociology undergraduate course scored 88 in the first unit test. The mean score of the class is 75 and the standard deviation is 6.5. The student is eager to know her percentile rank. Apply appropriate statistical technique to help the student get her answer. 10

7. Which method of Dispersion is used for ordinal level data ? Use that method to determine the value of Dispersion from the data given below. 10

| Class Interval | f(frequency) | cf (Cumulative Frequency) |
|----------------|--------------|---------------------------|
| 31-33          | 3            | 3                         |
| 34-36          | 0            | 3                         |
| 37-39          | 1            | 4                         |
| 40-42          | 5            | 9                         |
| 43-45          | 7            | 16                        |
| 46-48          | 6            | 22                        |
| 49-51          | 14           | 36                        |
| 52-54          | 9            | 45                        |

(Turn Over)