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# B. A. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2016 SEMESTER III - COMPLEMENTARY COURSE (STATISTICS) ST3CS01B - BASIC STATISTICS

(For B.A Sociology)

Time: Three Hours Maximum Marks: 80

Use of scientific calculators and statistical tables permitted

#### **PART A (Short Answer Questions)**

#### I. Answer all questions. Each question carries 1 mark.

- 1. Name two sources of secondary data.
- 2. What is the meaning of the word 'Statistics'?
- 3. Define simple classification.
- 4. Mention one advantage of diagrammatic representation of data.
- 5. Define Mode.
- 6. Which measure of dispersion is least affected by extreme observations?

(6x1=6)

#### **PART B (Brief Answer Questions)**

#### II. Answer any seven questions. Each question carries 2 marks.

- 7. What is a questionnaire?
- 8. What is the importance of Statistics in the study of sociology?
- 9. Define systematic sampling.
- 10. What is bar diagram?
- 11. Distinguish between univariate and bivariate data?
- 12. What is a cartogram?
- 13. Write any four desirable properties of a good measure of dispersion?
- 14. Define Arithmetic Mean. Find the Arithmetic Mean of the numbers 1,2,3,4,5.
- 15. Explain weighted Arithmetic Mean.
- 16. The variance and arithmetic mean of a set of observations are 25 and 50 respectively. Find the coefficient of variation.

(7x2 = 14)

#### **PART C (Short Essay Questions)**

#### III. Answer any five questions. Each question carries 6 marks.

- 17. What are the precautions to be taken before using secondary data?
- 18. Distinguish between primary and secondary data.
- 19. Explain Simple Random Sampling and the methods of taking it?
- 20. Which are the different types of tabulation?

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- 21. Explain Histogram?
- 22. Compare mean and median.
- 23. Find the mode.

Cass: 10-15 15-20 20-25 25-30 30-35 35-40 40-45 45-50 Frequency: 4 8 18 30 20 10 5 2

24. State the merits and demerits of Range as a measure of dispersion.

(5x6 = 30)

## **PART D (Essay Questions)**

### IV. Answer any two questions. Each question carries 15 marks.

- 25. Explain different methods of collecting primary data and mentioning the advantage and disadvantage of each.
- 26. Define Sampling. Make a comparison between sampling and census methods.
- 27. Find the mean and standard deviation for the following data.

| Score           | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 |
|-----------------|------|-------|-------|-------|-------|-------|-------|
| No: of students | 10   | 915   | 25    | 25    | 10    | 10    | 5     |

28. Draw a less than and greater than ogive for the data and obtain median from the graph.

| Marks  | Frequency |
|--------|-----------|
| 0-20   | 5         |
| 20-40  | 10        |
| 40-60  | 18        |
| 60-80  | 12        |
| 80-100 | 5         |

(2x15 = 30)