Reg. No: ....

Name: ....

B. A. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2018
(2017 Admissions Regular, 2016 Admissions Supplementary/Improvement & 2015 Admissions Supplementary)
SEMESTER III - COMPLEMENTARY COURSE (STATISTICS)
ST3CS01B – BASIC STATISTICS
(For Sociology)

Time: Three Hours   **Maximum Marks: 80**

PART A

I. Answer all questions. Each question carries 1 mark

1. What are the precautions to be taken while using a secondary data?
2. What is proportional allocation in stratified sampling?
3. What is chronological classification?
4. Name the graph that is used to find Mode of a data.
5. Give the empirical relation between Mean, Median and Mode.
6. If mean is 10 and standard deviation is 5, find the co-efficient of variation.

(6x1=6)

PART B

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

7. Distinguish between Primary and Secondary data.
8. What are the functions of statistics
9. Explain the Lottery method of selecting a Simple Random Sample.
10. Define less than cumulative frequency of a class in a frequency distribution.
11. What are the characteristics of a good classification?
12. Distinguish between diagrams and graphs.
13. Give the formula for finding the combined mean of 3 sets of observations.
14. Distinguish between simple arithmetic mean and weighted arithmetic mean.
15. Find the third quartile and seventh decile from the following observations
    14,11,11,10,12,13,10,14,11,11,10,12,12,13,13,11,14,12,12,12,13,12,12,13,12.
16. Team A has mean score 7 and variance 25. Team B has mean score 6 and variance 9. Which team shows more consistency?

(7x2=14)

PART C

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

17. Describe any two methods of collecting Primary data.
18. Distinguish between probability sampling and non probability sampling.
19. Form an appropriate grouped frequency table for the following data
    32,47,41,51,41,30,39,18,48,53,54,32,31,36,15,37,32,56,42,48.
20. Explain the method of drawing a Pie diagram.
21. Draw a less than ogive for the following frequency distribution and hence find Median

Classes	0-20	20-40	40-60	60-80
Frequency	7	16	13	4

22. Find mean median and mode of the following observations.
    28, 32, 27,45,31,45, 20, 46, 48, 14.

23. The mean age of a group of 100 children was 9.35 years. The mean age of 25 of them was 8.75 years and that of another 65 was 10.51 years. What was the mean age of the remaining children?

24. Compare the variability in the two groups using Quartile deviation
    Group I: 20   22   17   23   26
    Group II: 10   20   18   12   15

(5x6=30)

PART D

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

25. Explain the various methods of collecting primary data.

26. The production cost of two manufacturers A and B are given below. Represent the data using Pie diagram

Particulars	Manufacturer A (in '000 Rs.)	Manufacturer B (in '000 Rs.)
Material	27.7	52.2
Wages	37.7	60.5
Expenses	16.4	32.4
Miscellaneous	18.2	42.9

27. An incomplete frequency distribution is given below. The total number of observations is 50 and Median is 25. Find the missing frequencies.

Classes	0-10	10-20	20-30	30-40	40-50
Frequency	3	?	20	?	5

Also find the Arithmetic Mean of the completed distribution.

28. Find Standard deviation, co-efficient of Standard deviation and co-efficient of variation of the following frequency distribution

Height(in inches)	62-64	64-66	66-68	68-70	70-72
frequency	3	4	5	4	4

(2x15=30)