

TB221690V

Reg. No :

Name :

B. Sc. DEGREE (C.B.C.S.) EXAMINATION, NOVEMBER 2022
(2022 Admissions (regular) 2021 Admissions (Improvement / Supplementary), 2020, 2019, 2018, 2017 Admissions
Supplementary)
SEMESTER I - COMPLEMENTARY COURSE 2 (PSYCHOLOGY)
PY1CMT03 - BASIC STATISTICS

Time : 3 Hours

Maximum Marks : 80

Part A

I. Answer any Ten questions. Each question carries 2 marks

(10x2=20)

1. Define census.
2. Write the advantages of graphical representation of data.
3. State the merits and demerits of primary data.
4. Write the importance of classification of data.
5. Among simple random sampling and systematic sampling which is more efficient and why?
6. Distinguish between SRSWOR and SRSWR.
7. Define strata and write its essential features.
8. Among simple random sampling and stratified random sampling which one is more representative and why?
9. Discuss the merits and demerits of mode.
10. For open end classes which is the suitable average and why?
11. Which is the most commonly used average? Justify your answer.
12. The mean marks of 50 students is 63. Later on it was discovered that a score of 73 marks was misread as 37. Find the actual mean.

Part B

II. Answer any Six questions. Each question carries 5 marks

(6x5=30)

13. Explain direct enquiries.
14. Explain individual series, discrete series and continuous series of data.
15. Write down the factors which will decide whether primary data or secondary data are to be collected.
16. Explain the errors in statistical enquiry?
17. What kind of sampling do you prefer in the case of heterogeneous population? Why?
18. Explain the concept of simple random sampling without replacement.
19. Explain the merits of sampling over census. When do you prefer only sampling method?
20. Is mode rigidly defined? why? Find mode of 10, 12, 14, 17, 8, 12, 6, 15, 12, 15.
21. Find the arithmetic mean of the following data.

| | | | | | | | | | |
|---------------|----|----|----|----|----|----|----|----|----|
| Age | 57 | 59 | 60 | 61 | 62 | 63 | 64 | 66 | 68 |
| No. of people | 15 | 20 | 32 | 35 | 33 | 22 | 20 | 10 | 8 |

Part C

III. Answer any Two questions. Each question carries 15 marks

(2x15=30)

22. Explain classification and tabulation. Discuss their need in organisation of data.

23. Explain simple random sampling in detail and discuss various methods of selecting random samples. Also write its merits and demerits.

24. a) Can you find mean graphically? What are the disadvantages of mean? Which essential properties of a good average are satisfied by mean? Is mean the best measure of central tendency? If so why?

b) Calculate mean from the given data.

| | | | | | | | |
|---|----|----|----|----|----|----|----|
| x | 10 | 12 | 15 | 18 | 20 | 25 | 28 |
| f | 2 | 3 | 8 | 12 | 8 | 5 | 1 |

25. a) Why do you prefer mean or median to mode.

b) Is the mode exist always? If no then how will you calculate mode?

c) Calculate mode from the following values.

12, 18, 35, 22, 16, 25, 15, 26, 32, 14, 28.