QP CODE: 25020265

25020265

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS)) REGULAR/ IMPROVEMENT/ REAPPEARANCE / MERCY CHANCE EXAMINATIONS, FEBRUARY 2025

Fourth Semester

B.Sc Computer Applications Model III Triple Main

Complementary Course - ST4CMT05 - SAMPLE SURVEY DESIGNS

2017 Admission Onwards

3E9526CE

Time: 3 Hours Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Define Population.
2. Give two disadvantages of non-probability sampling.
3. What is National Data Bank?
4. Write two responsibilities of program implementation wing.
5. Define SRSWR
6. Give the Confidence Interval for population mean and total.
7. Show that p is an unbiased estimate of P.
8. Write the estimate of population mean and its variance
9. What is equal allocation?
10. What is cost function?
11. Define systematic sampling.
12. How do you do cluster sampling?

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Write a short note on probability sampling.

14. Name the main steps of sample survey.

15. How can you reduce sampling errors?

16. Give any 5 activities of CSO.

17. Prove that the probability of selecting a specified unit of the population at any given draw is equal to the probability of its being selected at the first draw.

18. Show that s2 is an unbiased estimate of S2.

19. What are the reasons for stratification in sample survey? Explain with the help of examples.

20. In a systematic sampling with interval k, when N = nk, suggest an unbiased estimate of the population mean. Write down its sampling variance also.

21. How will you estimate population variance in cluster sampling?

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Give the Organizational aspects of sample survey.

23. A population consists of labourers A,B,C,D,E,F getting daily wages Rs 13, 11, 14, 12, 16 and 15. Show that the sample mean is an unbiased estimate of the sample mean by considering samples of size 2 from this population.

24. Explain the variances under different allocations.

25. Define cluster sampling. Explain how will you estimate population mean and population total in cluster sampling. Mention their variances.

(2×15=30)