

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai — 600 044.

M.Sc.(Bio-Statistics) END SEMESTER EXAMINATIONS NOVEMBER - 2023  
SEMESTER - III

**20PBSCT3008 - Sample Survey designs**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

**Section B**

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Explain SRS with replacement.
2. Classify Probability proportional to size without replacement.
3. Elucidate linear systematic sampling.
4. Examine sample size allocation.
5. Explain Jackknife Ratio estimator.
6. Discuss Regression estimator.
7. Classify Optimum cluster size.
8. Determine snowball sampling procedure.

**Section C**

I - Answer any **TWO** questions ( $2 \times 10 = 20$  Marks)

9. Determine the Horwits-Thompson estimator.
10. Classify the comparison of Ratio and regression estimators.
11. Distinguish SRS and systematic sampling plan.
12. Explain two-stage sampling unit of equal size variance in SRS.

II - Compulsory question ( $1 \times 10 = 10$  Marks)

13. Classify Simmons Randomized Response Model.

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