



# ADITYA DEGREE COLLEGES

## ANDHRA PRADESH

II B.Sc Statistics IV SEMESTER - I MID EXAMINATIONS  
(SAMPLING TECHNIQUES)

Max. Marks : 60

Time : 2 Hours

Date: \_\_\_\_\_

### SECTION - A

Answer any FIVE Questions

5X4=20M

1. Define i) Population ii) Sample iii) Parameter & Statistic
2. Limitation of sampling.
3. Define i) Sampling unit ii) Sampling distribution iii) Standard error
4. Write advantages and disadvantages of simple random sampling.
5. in SRSWR, prove that  $\text{var}(\bar{y}_n) = \frac{N-1}{Nn} S^2$
6. In SRSWOR, sample mean is an UBE of population mean.
7. Explain types of Random number tables.
8. Difference between SRSWR and SRSWOR.

### SECTION - B

Answer all the Questions.

4X10= 40M

9. a) What are principle steps involved in conducting a sample survey.

(OR)

- b) What are sampling and non-sampling errors and explain in detail.

10. a) Write Advantages of sampling over census.

(OR)

- b) Explain types of Sampling

11. a) Explain simple random sampling and its types.

(OR)

- b) show that in SRSWOR

$$\text{var}(\bar{y}_n) = \frac{N-n}{Nn} S^2$$

12. a) In SRSWOR, sample mean square is an UBE of population mean square

i.e,  $E[s^2] = S^2$

(OR)

- b) Explain Briefly selection of a simple random sampling.