

**Sree Chaitanya Mahavidyalaya**  
**M.Com. (Semester-2) Examination-2021**  
**Research Methodology**  
**Paper-COMPCOR10T**

**Full Marks-40**

**Time-2 Hours**

**Group-A**

**1. Answer any five questions**

**5x2=10**

- (a) What is meant by Citation?
- (b) What do you mean by social science research?
- (c) What is meant by research gap?
- (d) Define probability sampling.
- (e) What is meant by critical region?
- (f) Write a short note on Research Design.
- (g) What are type I and type II errors under theory of hypothesis testing?
- (h) What do you mean by consistency property of an estimator?

**Group-B**

**Answer any two questions**

**2x5 =10**

- 2. What is experimental approach to social science research?
- 3. Discuss the significance of Report Writing in research.
- 4. Prove that the absolute value of product-moment correlation coefficient cannot exceed 1.
- 5. Write a short note on systematic sampling.

**Group-C**

**Answer any two questions**

**2x10=20**

- 6. Discuss about the ethical guidelines of social science research.
- 7. Find the mean and variance of sample mean in case of both SRSWR and SRSWOR.
- 8. Find the maximum likelihood estimator of the parameters in random samples drawn from a normal population when both the parameters are unknown.
- 9. In a certain factory there are two different processes of manufacturing the same item. The average weight in a sample of 250 items produced from one process is found to be 120 grammes with a standard deviation of 12 grammes. The corresponding figures in a sample of 400 items from the other process are 124 and 14 respectively. Compute the standard error of difference between the two sample means. Is this difference significant? Also find 99% confidence limits for the difference in average weights of items produced by two processes.

**Send your answer scripts to this e-mail**  
**[scm.comm.st@gmail.com](mailto:scm.comm.st@gmail.com)**