



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – STATISTICS

SECOND SEMESTER – APRIL 2023

PST2MC04 – RESEARCH METHODOLOGY

Date: 08-05-2023

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

SECTION A – K1 (CO1)

Answer ALL the questions (5 x 1 = 5)

1. Define the following

a) Historical research

b) Research design

c) Sampling error

d) Non-comparative scaling techniques

e) Jackknife method

SECTION A – K2 (CO1)

Answer ALL the questions (5 x 1 = 5)

2. Fill in the blanks

a) A good research must be systematic, empirical, replicable and _____.

b) In an experimental hypothesis-testing when a group is exposed to usual conditions it is termed as _____ group.

c) _____ is used for measuring the extent of body excitement as a result of the visual stimulus.

d) _____ approach involves a panel of judges who evaluate the items chosen for inclusion in the instrument in terms of whether they are relevant to the topic area and unambiguous in implication.

e) _____ is a free and open-source reference management software to manage bibliographic data and related research materials, such as PDF files.

SECTION B – K3 (CO2)

Answer any THREE of the following (3 x 10 = 30)

3. Explain the significance of research.

4. List the problems encountered by researchers in India.

5. Provide the main steps of sampling design.

6. Narrate the application of MCMC methods.

7. Write in detail about the software used to detect plagiarism.

SECTION C – K4 (CO3)

Answer any TWO of the following (2 x 12.5 = 25)

8. Explain in detail about the research process.

9. Elaborate the desirable qualities of measurement scales.

10. Analyze the primary and secondary data collection methods.

11. Give an account of salient features of the LaTeX software for paper formatting.

SECTION D – K5 (CO4)

Answer any ONE of the following (1 x 15 = 15)

12. Write in detail about the projective and pictorial techniques used to collect data.

13. Discuss the Non-comparative scaling techniques commonly used in research.

SECTION E – K6 (CO5)

Answer any ONE of the following

(1 x 20 = 20)

14. Carry out a complete research analysis by selecting a current problem which the entire world is facing in the recent times.

15. Elaborate in detail reference management software used in research.

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