# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



### M.A. DEGREE EXAMINATION – ECONOMICS

### SECOND SEMESTER - APRIL 2023

## PEC2MC04 - RESEARCH METHODOLOGY

	SEC	TION A – K1 (CO1)						
	Answer ALL the questions	$(5 \times 1 = 5)$						
1.	Choose the best answer							
a)		data source usually requires ethical approval?						
	(a) All of these	(b) Politicians' public speeches						
	(c) Newspaper articles	(d) Facebook messages						
b)	individual group or situation are	on, with narration of facts and characteristics concerning						
	(a) Descriptive studies	(b) Diagnostic research studies						
	(c) Exploratory research studies							
c)	warranted through	or not a more substantial investigation of a phenomenon is						
	(a) Testing samples	(b) Testing questionnaire						
	(c) Testing data	(d) Pilot study						
d)	Complete knowledge about the responde							
	(a) Snowball sampling	(b) Quota Sampling						
	(c) Judgment sampling	(d) Systematic Sampling						
e)	Clear writing, minimization of technical (a) Technical report	l details and liberal use of charts and diagram are required (b) Popular Report						
	(c) Banking report	(d) Clinical report						
	SEC	TION A – K2 (CO1)						
	Answer ALL the questions							
2.	Answer the following in one or two se	entences:						
a)	Research Ethics.							
b)	Extraneous variable.							
c)	Open-ended questions							
d)	Case study method.							
e)	Popular report							
	SEC	TION B – K3 (CO2)						
	Answer any THREE of the following in 300 words (3							
3.	Develop a procedure to study the consumer behaviour using Nuremberg Code.							
4.	Identify the role of theory in social science research.							
5.	Experiment the sources and significance of secondary data.							
6.	Construct a randomised block design for	r conducting social science research.						
7.	Organise the steps in writing a research							

	SECTION C – K4 (CO3)									
	Answer any TWO of the following in 500 words	$(2 \times 12.5 = 25)$								
8.	Classify the different types of research.									
9.	Analyse the merits and limitations of structured interview method of data collection									
10.	Distinguish between census and sampling design.									
11.	Dissect the layout of a research report.									
	SECTION D – K5 (CO4)									
	Answer any ONE of the following in 750 words	$(1 \times 15 = 15)$								
12.	Compare participatory observation and nor-participatory observation method of colle	cting primary								
	data.									
13.	Explain the research process with a flow chart.									
	SECTION E – K6 (CO5)									
	Answer any ONE of the following in 1000 words	$(1 \times 20 = 20)$								
14. Formulate a questionnaire to study the impact of COVID 19 on the socioeconomic cor										
	slum dwellers.									

15. CASE STUDY: Co-authorship — When changing labs, have you done enough to be included?

Sarah is a graduate student that worked in the lab of Dr. Jones for a year studying a novel transmembrane protein found only in tumor cells. Sarah isolated some of the protein and then used a contract laboratory to develop a sensitive rabbit antibody that recognizes an extracellular portion of the protein. Her dissertation project was going to involve using this antibody (along with other methods) to study the protein and its potential role in tumor progression and metastasis.

Despite this progress, she unfortunately did not get along well with Dr. Jones and decided to leave the lab andmove to Dr. Smith's lab to begin a new project.

A few months later, Sarah finds out that her former advisor is preparing a paper based on subsequent research conducted by a new graduate student, but using the antibody Sarah developed. Sarah feels that she should be a coauthor and brings this up with Dr. Jones. The former advisor explains that the data being published were obtained solely by the new graduate student, and that raising an antibody is merely a technical activity that does not justify co-authorship. Sarah argues that the isolation of the protein and the decision about what peptide to select as antigen constituted original scientific thinking. Dr. Jones disagrees, saying that the literature contains numerous examples of this type of work.

#### **Discussion Questions**

- a) Should Sarah be a coauthor on the paper?
- b) Dr. Jones suggests that she will write a methodological paper limited to describing the preparation and characterization of the antibody. She offers Sarah coauthorship. However, she can't get to work writing that paper until her new student's paper has been submitted. Should Sarah accept this offer?
- c) Sarah brings her complaint to the chair of the department. She argues that the new student's research could not have been done without her antibody and its characterization. How should the department chair respond to this situation?

d)	What could	Sarah	and	her	advisor	have	done	prior	to 1	her	departure	to	prevent	this
	disagreement from occurring?													

- e) Would your answers be any different if Sarah had remained in the original lab, but had abandoned the project and taken up a new dissertation topic?
- f) Would your answers be any different if Sarah were a technician in the Jones lab instead of a graduate student?

g) Would your answers be any different if Sarah had used core-laboratories to carry out the protein's isolation and sequencing?