Time allowed: 2 Hrs 30 Min
Max Marks: 50

Roll No: _____

Instruction: Students are required to write Roll No on every page of the question paper, writing anything except the Roll No will be treated as **Unfair Means.** All other instructions on the reverse of Admit Card should be followed meticulously.

Sections	No. of Questions to attempt	Marks	Total Marks
A	Minimum 3 question with internal choices and CILO (Course Intended Learning Outcome) covered Or Maximum 6 questions with internal choices and CILO covered (as an example)	3*10 Or 6*5	30
B	Compulsory Case Study with minimum of 2 questions	20	20
			50

Section A

Q1: 10 marks (CILO 1 and 2)

a. Discuss the steps involved in designing of a questionnaire for a survey.

b. The following is a draft questionnaire designed to study customer's attitude towards smart speakers. Identify the different types of scales that have been used in this questionnaire. What changes will you make in this questionnaire before sharing it with potential respondents? What additional information would you ask for?

We invite you to participate in a brief survey about voice enabled smart-speakers. We request you to provide your unbiased responses. We thank you in advance for your time and effort in answering the survey.

Q1: Please rate the following brands of smart speakers in order of preference:
indicate Which Smart Speaker do you use?
   a) Google Nest   _____
   b) Alexa Echo Dot   _____
   c) Apple Home Pod Mini _____

Q2: Rate your overall attitude towards Smart Speakers. Smart Speakers are _____

Useful	1	2	3	4	5	Useless
Of concern to me	-1	-2	0	1	2	of no concern to me
Valuable	5	4	3	2	1	Worthless
Wise use of money	5	4	3	2	1	waste of money

Q3: Please rank 1 to 6 the following statements about smart speakers where 1 = most important, 5 = least important – no ties allowed

    a) Using a Smart Speaker is enjoyable.   _____
    b) Using a Smart Speaker is fun.   _____
    c) Using a Smart Speaker makes me happy.   _____
    d) Using a Smart Speaker stimulates my curiosity. _____
    e) Using a Smart Speaker arouses my imagination. _____

Q4: Please indicate if you find smart speakers to be trustworthy

	Yes	No
Smart speaker is trustworthy.		
I would qualify smart speaker as honest.		
I think that smart speaker is responsible.		
In general, I trust smart speaker.		

Q5: Will you be interested to use smart speaker? Indicate your response by rating your agreement for the following statements, on a scale of 1 to 5, where 1 = completely Disagree to 5 = Completely Agree

	1	2	3	4	5
I will be pleased to use Smart Speaker					
I will be happy to use Smart Speaker in daily life					
I will be willing to use Smart Speaker for a convenient life					

OR

Q1: 10 marks (CILO 1 and 2)

a. Suppose you are interested in determining the proportion of salaried people in your area who invest in the equity market. How could the necessary information be obtained by open-ended questions, by multiple choice questions, and by dichotomous question? Which would be preferable?

b. As a researcher, what criteria will you use to determine whether a specific question should be included in a questionnaire?

Q2 10 marks (CILO 2)

When is it suitable to conduct qualitative research over quantitative research? Differentiate between direct and indirect qualitative research. Give an example of each. What kind of sampling techniques are most appropriate for selecting respondents for qualitative research?

OR

Recently, a famous salon has seen a drastic drop in customer footfall. The salon owner wants to identify the reason behind it. He hires you – an independent research consultant to address this problem. You ask the salon owner to give you access to their customer database. From this data base, you identified a set of customers who have visited the salon only once in the last six months. Develop a plan to conduct in-depth interviews with these customers. Prepare a short interview guide / schedule. What kind of interview technique will you use to gain insights about the reason why these customers did not visit the salon again? What are the major advantages of in-depth interviews and are they preferable to focus groups in this case?

Q3 10 marks (CILO 1)

A leading manufacturer of frozen food products decided to test the effectiveness of an in-store display. Four large supermarkets, located near the company's main office, were selected for the experiment. The display was set up in two of the stores, and the sales were monitored for a period of two weeks. The sales of the other two stores were also recorded, but no displays were used. Sales volume for the frozen food products increased 2% more in the stores that used the in-store displays than in the stores that did not use the displays.
a) Determine what type of design is being used. Explain.
b) Diagrammatically represent the design
c) What are the possible extraneous variables that can affect the outcome of this research investigation?

OR

a) Amey is the national sales manager of iTrust Financial services. Amey hypothesized that "iTust's increase in sales is due to the new sales personnel that were recruited from the vocational schools over the last several years. Sales of the new salespeople are up substantially, whereas sales for longer-term salespeople have not increased". Identify the causal factor X and the effect factor Y in the above statement.
b) What is a test market? For what kind of investigations can test markets be used? What are the problems associated with test markets?

Section B – Case study (CILO 3)

A multinational bank Amerifund Intl (AFI), was interested in measuring customer satisfaction with its consumer banking services and financial products. The managers at AFI Corporate differed in their opinions regarding the form of the optimal customer satisfaction study: Survey, focus group, interview and so on. So as a starting point, AFI commissioned bids from marketing research firm, to describe how they would approach studying their banking customers in Delhi. In particular, they asked the bidding firm to offer cost estimates; that is, how many customers can be sampled given the proposed budget of INR 12 Lakhs, for this research project using different techniques.

The bids covered a variety of research methods, which differed in their costs. They considered a personal interview method in which the customer would be intercepted in the bank and asked several questions regarding the service and satisfaction. They compared the method to the costs of sending out mail surveys to current customers. Finally, they explored the efficiency of placing small, post-card sized surveys at each teller station that the banking customer might pick up and complete and return at their leisure.

AFI gathered the marketing research firm's proposals to begin to make a decision of how the bank should approach its customers. In terms of outlay expenses, more postcards could be printed less expensively than surveys sent or interviewers staffing each of the local bank branches. However, in terms of response rates, somewhat fewer people turned down the personal interview than who returned the mail survey or postcard survey. Table 1 presents comparative estimates for the three different techniques. Clearly the table shows that in Delhi, the post card technique appears to be most cost effective. Thus, the bank managers are considering implementing this research tool.

Table 1: Estimates for Delhi Sample

	Interview	Mail Survey	Post cards
a. Research budget	INR 12 Lakhs	INR 12 Lakhs	INR 12 Lakhs
b. Cost per contact	INR 1,500	INR 150	INR 15
c. Prospects reached*	2400	8000	80,000
d. Response rate	5%	3%	1.5%
e. Estimated net sample size (cXd)	120	240	1200
f. Effective cost per capita (a/e)	INR 10,000	INR 5000	INR 1000

*For mail and post card, c=a/b; for interviews, cost is INR 1,500 per hour, times a five-hour day, = INR 7,500 per day, for each interviewer. Each of the 12 interviewers (spread across the area of local bank branches) would spend two weeks (10 bank days) approaching and interviewing customers. Each interviewer on each day would target 20 bank customers, on average.

AFI Corporate's second concern is with a few of its satellite locations; in particular, the news from Chennai is that the customers there are not happy, and AFI wants to understand what is going on. Its first assumption was the bank should proceed with the postcard methodology to be able to compare the results in Mumbai to those from Delhi. However, they conducted some preliminary investigations and found the costs of the methods to be quite different. The bank plans to proceed with personal interviews in Mumbai.

Consider Table 1 and 2 and answer the questions that follow.

Table 2: The projections for Chennai

	Interview	Mail Survey	Post cards
a. Research budget	INR 12 Lakhs	INR 12 Lakhs	INR 12 Lakhs
b. Cost per contact	INR 500*	INR 150	INR 25
c. Prospects reached*	4800	8000	48,000
d. Response rate	20%	3%	1.5%
e. Estimated net sample size (cXd)	960	240	720
f. Effective cost per capita (a/e)	INR 1250	INR 5000	INR 1670

* These estimates differ from those of conducting the research in Delhi. Labor costs for interviewing are much less, propensities for customers to acquiesce and be interviewed are much greater, mail surveys are somewhat less efficient because hard-drive databases on addresses are less accurate, and postcards are an unfamiliar format and are therefore rarely filled out. Given the changes in the interviewing parameters, if the project duration is still two weeks, 24 interviewers can be deployed, so 4800 customers would be approached.

Q4: What are the advantages and disadvantages of the two methods being considered by AFI? Does it matter that the two different methods are being employed in different cities? Why or why not?   – **5 marks**

Q5: What is the target population under investigation, both in Delhi and Chennai? What are the differences between the sampling frame of each of the three techniques? What customers will each technique miss?   – **10 Marks**

Q6: What other issues must the bank managers consider in addition to the cost efficiencies of the three methods?   – **5 marks**