

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA-SEMESTER-I-EXAMINATION-WINTER-2024

Subject Code: MB01000031**Date: 13/01/2025****Subject Name: Business Research and Statistical Analysis****Time: 10:30 AM TO 01:30 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

- Q.1** Briefly discuss the following: **14**
- (a) Hypothesis
 - (b) Problem statement in research
 - (c) Research report
 - (d) Parametric test
 - (e) Bivariate data analysis
 - (f) Secondary sources of data
 - (g) Quantitative research
- Q.2 (a)** How the research is important in business world? Also explain the characteristics of a good research. **07**
- (b)** Tata Tiago division of Tata Motors wants to perform customer satisfaction survey in Gujarat. Develop the questionnaire for performing this research. **07**
- OR**
- (b)** What do you understand by descriptive research? Explain with example. **07**
- Q.3 (a)** Depict your understanding for projective techniques. How these are different from focus group research? **07**
- (b)** Depict your understanding for non-probability sampling methods. Discuss any two non-probability sampling methods in brief. **07**
- OR**
- Q.3 (a)** Explain the concept of experimentation in research. How lab experiments are different from field experiments? **07**
- (b)** What are the four basic levels of measurement? Explain each one with suitable example. **07**
- Q.4 (a)** Depict your understanding for citations in literature review. How can it be included in bibliography of the research report? **07**
- (b)** Explain editing and coding of the data while entering them into any software. **07**
- OR**
- Q.4 (a)** Develop the regression equation of Y on X for the following data set: **07**

X	Y
1	2
2	3
3	5
4	7
5	8

- (b) Suppose 50 people were surveyed about their preferred beverage type (Tea or Coffee) and gender (Male or Female). Perform the test if there is an association between beverage preference and gender at a 5% level of significance using the Chi-square test: 07

	TEA	COFFEE	total
MALE	10	15	25
FEMALE	15	10	25
Total	25	25	50

Q.5

Case Study: Customer Satisfaction in a Retail Chain

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ShopSmart, a popular retail chain, faces increasing competition and concerns about declining customer satisfaction, which could affect repeat sales. To address this, the management team initiates research to assess customer satisfaction, identify influencing factors, and make improvements.

Research Objective is to understand satisfaction levels, identify key drivers of customer experience, and provide actionable insights.

For this the team employs a mixed-method approach:

1. Quantitative Survey: A structured survey of 500 customers across different store locations rates satisfaction from 1 to 5 in areas like product quality, pricing, cleanliness, staff behaviour, and checkout experience.
2. Qualitative Interviews: In-depth interviews with 20 customers capture detailed insights on their expectations.
3. Observation: Researchers observe customer interactions with the store layout and employees to identify pain points.
4. Secondary Data Analysis: Social media and review feedback help understand common customer concerns.

Key Findings

- Satisfaction Levels: 60% of customers report high satisfaction, but 40% indicate moderate to low satisfaction, often due to long wait times and product unavailability.
- Influencing Factors: Customers prioritize quick service, helpful staff, and cleanliness. Issues with product availability and checkout speed lead to dissatisfaction.
- Employee Engagement: Observations suggest that some employees appear less engaged during peak hours.

Recommendations:

- Enhance Checkout Efficiency: Introduce self-checkout or increase staffing at peak times.
- Improve Product Availability: Use better inventory management to keep popular items in stock.
- Boost Employee Training: Focus on customer service during busy hours.

Questions

- a) What research design does ShopSmart use, and what are its advantages?
- b) How might customer satisfaction and loyalty be operationalized in this study?

OR

- a) What sampling method might be used, and why is sample representativeness crucial?
- b) What ethical considerations are important for interviews and observations?
