

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

GUJARAT TECHNOLOGICAL UNIVERSITY

**MBA I - SEMESTER - I EXAMINATION – WINTER • 2014**

**Subject Code: 2810006**

**Date: 26-12-2014**

**Subject Name: Research Methodology (RM)**

**Time: 10:30 am - 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.

**Q.1 (a)** Find the correct option. Each is carrying 1 mark.

**06**

1. The weakness in the design of data collection instrument can be detected through...  
A. Pilot testing      B. Sampling testing  
C. Acceptance testing      D. Prototype testing
2. Research for the sake of pure knowledge is called...  
A. Applied      B. Basic  
C. Historical      D. Decision oriented
3. Research gap can be identified using...  
A. Executive summary      B. Literature review  
C. Data collection      D. Research proposal
4. The effect of extraneous variable can be minimized using...  
A. Experiment      B. Control  
C. A and B both      D. None of these
5. The degree to which the results are consistent is gauged from...  
A. Scalability      B. Validity  
C. Reliability      D. Practicality
6. Actual measure of a population size is called...  
A. Universe      B. Sample  
C. Sampling      D. Sampling Frame  
Methodology

**Q.1 (b)** Give the meaning of the followings in short. Each is carrying 1 mark.

**04**

1. Census
2. Quasi-Random Sampling
3. Sensitivity
4. Extraneous Variable

**Q.1 (c)** Define Business Research. Why research is needed to run a business successfully? Explain in short.

**04**

- Q.2**      **(a)**    When projective techniques are needed? Explain the various types of projective techniques. **07**
- (b)**    What is likert scale? Develop the 5 point likert scale about the any five 5 different attributes of washing machine with numerical codes. **07**

**OR**

- (b)**    The proprietor of a university cafeteria wants a survey done on the number of university employees eating their lunch in the cafeteria in a month. What method of data collection would you recommend for this survey and why? Justify. **07**
- Q.3**      **(a)**    What is Focus Group interview? How it works? Give the merits and demerits of focus group interview. **07**
- (b)**    You are appointed as a research analysis by Pepsi Co. You are informed to compare the market of Pepsi beverages with Coca-cola beverages. Develop the questionnaire to measure the marketer performance of both. **07**

**OR**

- Q.3**      **(a)**    How stratified sampling differs from cluster sampling? Elaborate with suitable examples. **07**
- (b)**    What is hypothesis? Develop set of six the null and alternate hypothesis for measuring an impact of demographic variables like age, gender, occupation, marital status, education, income on e-marketing approach. **07**
- Q.4**      **(a)**    Write a note on “Components of writing a good research report”. **07**
- (b)**    What is observation? Being a good researcher, how you will observe to measure buying behavior of consumers in the biscuit segment of mall system. Narrate your answer with good qualities of observer and type of observation technique. **07**

**OR**

- Q.4**      **(a)**    What are sampling and non-sampling errors and how can a researcher control them? **07**
- (b)**    Develop the research proposal for the measurement of consumer buying behavior for a laptop brand (like Dell, HP, Acer etc) by considering the research topic, research problem statement, population size, sample size, sampling technique, data collection tools, data analysis tools, hypothesis with appropriate reasons whenever is required. **07**

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**Q.5**

**Dilemma in Sample Size Determination**

When a study is being conducted on primary data, a frequent dilemma that is faced by almost all the researchers is that of choosing the right sample size. A student of M.B.A. is undertaking a research as a part of his study, with packaged juice manufacturing company Tropicana. His project is to study the popularity of packaged juices among the young residents of the Ahmedabad city in the age of 18-30 range.

While deciding on the sample size, the researcher decided to use a non-

statistical approach. He got advice from all sides. Some said that refer to similar studies conducted earlier and adopt the sample size chosen by them. Others suggested that he has to go for a typically used size e.g. of 100 respondents. It was like picking up a magic number, which is a multiple of 5.

The company with which he was doing his training suggested that he chose a sample size that fits with the budget being provided by the company for conducting the research e.g. the company was giving an amount of Rs. 10,000, the supervisor provided him with following estimate:

|                                        |               |
|----------------------------------------|---------------|
| Total amount available                 | = 10, 000 Rs. |
| Less Fixed Cost                        | = 4,000 Rs.   |
|                                        | -----         |
| Amount for variable cost               | = 6,000 Rs.   |
| Divided by the cost of each respondent | = 50 Rs.      |
|                                        | -----         |
|                                        | 120           |

Hence a total of 120 respondents were suggested as the sampling size.

Another option was to study the demographic profile of the population and decide on the criteria against which the analysis is to be carried out e.g. the population can be categorized into two major sub-groups of males and females and then a minimum of 100 respondents from each of these subgroups can be selected. If however the sub group is being developed on the basis of occupation e.g. student, government service, private sector, business homemaker. This resulted in five relatively smaller subgroups. In such a situation 50 respondents from each group can be chosen. This will result in sample size of 250 respondents.

Thus, there are a plethora of criteria available to the researcher for deciding the optimal size for his project.

Questions:

- 1) What should be the sample size for the given research project? Which method would you opt for determining the sample size?
- 2) Is the researcher correct in relying on non-statistical approach to sample size determination? Justify your response.

OR

Q.5

**‘Delicious’ – New Ice Cream Business**

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Ice cream giant of India – ‘Delicious’ want to set up various soft cones vending machines at various shopping malls and other shopping places. The USP of the ice cream is that it is less sweet, low calories and yet very thick and creamy. They have five different flavors i.e. Vanilla, dark cocoa, coffee, butterscotch and strawberry. They also have unique real fruit flavors in orange, kiwi, black current, and mixed fruit.

Before they launch the ice cream they need to know the taste preferences, buyers’ behavior towards their spending power and frequency of eating ice cream. The ice cream is targeted to health conscious consumers.

Questions:

- 1) What is research process? Explain the research process for the above situation.
- 2) As a researcher which research design would you use? Justify your choice.
- 3) Which scaling technique you would recommend for the measurement of the data collected?
- 4) Which technique you would use to test the “value for money” satisfaction?

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