

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MBA – SEMESTER 2 – EXAMINATION – SUMMER 2018**

**Subject Code: 3529207****Date: 28/05/2018****Subject Name: Research Methodology****Time: 10.30 a.m. to 1.30 p.m.****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** Explain the following with suitable examples: **14**
- (a) Two-tailed Test
  - (b) Panel Studies
  - (c) Bar Chart
  - (d) Interval Scale
  - (e) Disguised Observation
  - (f) Type I and Type II error
  - (g) Double Barreled Questions

- Q.2** (a) Explain in detail various steps of the research process. **07**
- (b) An automobile company wants to launch premium segment SUV in Indian market. Before launching it, the company wants to conduct market research on “Understanding Customer Preference and Purchase Intension for Premium Segment SUV in India”. Prepare a questionnaire for the same. **07**

**OR**

- (b) A research company wants to conduct Focus Group on “Understanding consumers motivation for buying Organic Food Products” Prepare the following for the same: **07**
1. Pre-screening Questionnaire
  2. Moderators Outline

- Q.3** (a) Discuss various Non-Comparative scaling techniques with appropriate examples. **07**
- (b) As a research organization prepare a research proposal for an Indian FMCG company who wants to launch Energy Health Drinks in Indian market. **07**

**OR**

- Q.3** (a) Discuss various Random Sampling Techniques. **07**
- (b) A drink bottler wants to introduce a new calorie drink in the market. Sales pattern of other soft drink being currently marketed indicates that: **07**
- 10% people purchase – 200 ml bottle  
35% people purchase – 500 ml bottle  
25% people purchase – 1 Litre bottle  
30% people purchase – 1.5 Litre bottle

The bottler is interested in knowing if the same pattern of consumption will be applicable for the new drink too. After a two-week market test, it was found that 15980 bottles of the new drink were sold. The distribution of sale by pack size was as follows:

200 ml	500 ml	1 Litre	1.5 Litre	Total
1698	5683	3945	4654	15980

What inference can be drawn from this data?

- Q.4** (a) Explain the difference between Qualitative and Quantitative Research. **07**  
 (b) An electronic goods company arranged a special training programme for one segment of its employees. The company wants to measure the change in the attitude of its employees after the training. For this purpose, it has used a well-designed questionnaire, which consists of 10 questions on a 1 to 5 rating scale (1 is strongly disagree and 5 is strongly agree). The company selected a random sample of 10 employees. The score obtained by these employees are given below: **07**

Employees	Score Before Training	Scores After Training
1	25	32
2	26	30
3	28	32
4	22	34
5	20	32
6	30	28
7	22	25
8	20	30
9	21	25
10	24	28

Use  $\alpha = 0.10$  to determine whether there is a significant change in the attitude of employees after the training programme.

**OR**

- Q.4** (a) Explain various components of writing research report. **07**  
 (b) A company has installed new swapping machines in India (I) and Australia (A). A quality control officer has examined 62 selected machines in a random manner from both the countries as below: **07**

I,I,I,I,I,I,A,A,A,A,I,I,I,I,I,A,A,A,A,I,I,I,I,I,I,A,A,A,A,I,I,I,I,I,I,  
 A,A,A,A,A,I,I,I,I,I,I,I,A,A,A,A,A

Use  $\alpha = 0.05$  to determine whether the quality control officer has selected the sample randomly.

**Q.5****CASE STUDY:**[www.FirstRanker.com](http://www.FirstRanker.com)[www.FirstRanker.com](http://www.FirstRanker.com)

Based on an analysis of the last six months' sales, your boss notices that membership of Gymnasium (Gym) is decreasing. As the membership decline, so do the profits. Looking to the situation your boss has asked you to conduct research to understand perception and attitude of customers' for joining a gym. Answer the following for conducting this research.

- (a) Identify the Management Problem, Research Problem and Research Objectives. **07**
- (b) Write the research questions including various variables you want to study. **07**

**OR**

- Q.5**
- (a) Which research design would you select for conducting this research. Justify your selection. **07**
  - (b) Develop an attitude scale questionnaire for measuring consumers' attitude for joining a gym. **07**

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