

Birla Institute of Technology and Science, Pilani

First Semester 2022-23

Comprehensive Examination

MPBA G529

Date :- 21/12/2022

Marketing Research & Metrics

M.Marks:35

Time: 3Hours

Q1. Design a questionnaire using comparative and non-comparative scaling techniques used in marketing Research. (5)

Q2. Explain which multivariate statistical technique/s will you use to decide upon test markets? Which techniques for segmentation and product positioning and why? (5)

Q3. Describe the purpose for which Factor Analytical techniques are used in Marketing Research as well as the process of carrying it out. What is meant by the terms Eigen value and communalities? (5)

Q4. A Beverages company wants to know if college students prefer their cola drinks to be caffeine– free. They have undertaken research at the university campus, where they randomly sampled 250 girls and 250 boys in each of the four classes (i.e. a total of 2000 students). If the percentage of students preferring caffeine–free cola is those shown below, what conclusions can the company reach?

	Freshers	2nd year Students	3rd yr. students	Final yr. students
Girls	60%	48%	41%	29%
Boys	55%	53%	37%	33%

(5)

Q5. A breakfast Cereal Company believed that its popular brand of corn flakes had a 50% penetration rate. A random sample of 500 households showed that 55% were consumers of company's brand of corn flakes. Can the company be 95.4% confident that the sample finding of 55% is significantly different from the 50% penetration rate believed to exist for their corn flakes brand? Can the company be 99.7% confident that

the 5% difference is a significant one? Repeat the problem, assuming that a sample of 1250 was used, instead of only 500. (5)

Q6. The sweet candy company is sales testing three flavours of hard candy– watermelon, strawberry and apricot. The new flavours will also be tested at three different price levels viz. Rs. 5, Rs.6 & Rs.7. The company selects 12 stores that have historically have had similar candy sales.

The three flavours of candy are placed in three randomly selected stores each and the candy is priced at Rs. 5 in one store, Rs. 6 in the second and Rs. 7 in the third store. One of the company’s popular flavours (mint) is placed in the remaining three stores and is given the same three prices as the other flavours. Unit sales are monitored for three months, with the results shown below. What conclusions can you draw from the experiment?

Price	Strawberry sales	Apricot sales	Watermelon sales	Mint sales
Rs.7	15	31	14	20
Rs.6	19	59	31	51
Rs.5	47	81	54	58

(5)

Q7. What is a discriminant function? What criterion is used to derive its coefficient? How can this technique be used to differentiate delinquent credit card holders?

(5)