VPM's
DR VN BRIMS, Thane
Programme: MMS (2021-23)
Third Semester Examination February 2023

Course Name:	Marketing Research & Analysis	**Course Code**	MMS – M-314
Roll No.		**Marks**	60
Total No. of Questions	6	**Duration**	3 Hours
Total No. of printed pages	5	**Date**	15-02-2023

Course Outcome Statements:

CO1. DEFINE the basic concepts related to marketing research, marketing research processes, primary and secondary research, qualitative analysis.
CO2. EXPLAIN the concepts taught through the syllabus of Marketing Research & Analysis
CO3. MAKE USE OF processes pertaining to marketing research process, data collection, questionnaire designing, sampling, data processing for finding solution to the marketing research problems.
CO4. EXAMINE the results of various marketing research statistical tools from an analytical perspective
CO5. APPRAISE the results of marketing research statistical tools for taking business decision
CO6. DEVELOP a marketing research report consisting of business research problem, data collection, data analysis and conclusion

Instructions: -			**Marks**	**BL**	**CO**
Q. No 1 (All Questions are Compulsory)					
Q. No.		**Questions**			
Q. 1		Case/Case-let Study (500-800 words)			
		A three-star hotel located in Delhi has been experiencing a decline in its occupancy during the past one year. The management has recently reviewed the problem and is seriously considering to attract business executives as also to provide adequate facilities for holding business conferences, workshops etc, Since, this would involve some renovation of the existing building in addition to new furniture and equipment, the management wants to be cautious in undertaking such expenditure. Since its inception several years ago, the hotel has been maintaining a complete record of its guests. When a person visits the hotel for the first time, details such as his name, age, gender, permanent address, purpose of visit and duration of the stay are dated and recorded on the same card The guest files has expanded tremendously containing over 8000 cards. The management wants to make use of this readily available information along with any additional information necessary in this regard. Assuming that the management has entrusted you with the job, answer the following questions			
	a.	**Analyse** the information given in the case specify the data you would collect from the sample of respondent	**6**	**Level 4**	**CO4**
	b.	**Decide** relevant sampling methods would you select and why?	**6**	**Level 5**	**CO5**
Q. 2		Answer **Any one** from the following.			
		Indian railways raised their fares in recently. Indian railways are government-owned company and only rail operator in the country. Survey is conducted on respondents and they were asked to indicate on seven-point scale (1 =completely agree, 7= completely disagree), their agreement or disagreement with the set of 10 statements	**6**	**Level 5**	**CO5**

relating to their perceptions and attributes of the railways

Communalities

	Initial	Extraction
Indian railways are always on time	1.000	.933
seats are always comfortable	1.000	.934
I like the food offered by railways	1.000	.835
Auto-promotion to a higher class if seats are available	1.000	.943
my friends and family like travelling by trains	1.000	.462
The coach's condition is very good	1.000	.922
I get the benefits of frequent travelling	1.000	.971
it suits my time schedule	1.000	.955
my mom feels safe when I travel by train	1.000	.193
travelling by train suits my lifestyle	1.000	.923

Extraction Method: Principal Component Analysis.

Total Variance Explained

Components	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %
1	31.775	31.775	3.041	30.408	30.408
2	30.499	62.274	3.030	30.296	60.703
3	18.447	80.720	2.002	20.017	80.720
4					
5					
6					
7					
8					
9					
10					

Rotated Component Matrix

	Component		
	1	2	3
Indian railways are always on time	.954	-.004	.153
seats are always comfortable	.037	.090	.962
i like food offered by railways	.912	.037	-.052
auto promotion to higher class if seats are available	-.062	.965	.096
my friends and family like travelling by trains	.578	.149	-.325
coaches' condition is very good	.959	-.040	.021
i get benefits of frequently travelling	-.028	.985	-.005
it suits my time schedule	-.077	.175	.958
my mom feels safe when i travel by train	-.184	-.389	-.086

		travelling by train suits my life style	-.016	.956	.097		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 4 iterations.

	a.	**Explain** the rational of factor analysis	**6**	**Level 5**	**CO5**
	b.	**Decide** the variables linked with factor	**6**	**Level 5**	**CO5**
Q. 3		Answer **Any one** from the following.			
	a.	The marketing manager of **Reynolds** wants to know how the customer values the various tangible and intangible features offered by its micro-trip pen. He identifies the attributes of his product which are important to customers, then the level for each attribute that the company is willing to design and offer to a customer. These are the following attributes of a micro-tip pen, which are important. 1. The price of the micro-tip pen. 2. The colour of ink in refill. 3. Diameter of tip of the refill. The levels of these attributes are: 1. Price – Rs. 5, Rs. 7, and Rs. 10. 2. Colour of ink – blue, black, and red. 3. Diameter of tip – 0.25 mm, 0.45 mm, and 0.5 mm **List** the various combinations of the attributes with code creation and transpose	**6**	**Level 4**	**CO4**
	B	The marketing manager of **BPL Colour Television** wants to know how the customer values the various tangible and intangible features offered by its colour television. He identifies the attributes of his product which are important to customers, then the level for each attribute that the company is willing to design and offer to a customer. These are the following attributes of a colour television, which are important. **1. Price of the Product –** Rs. 14,000, Rs.19,000, Rs 25000, Rs.30,000 **2. Longevity in years –** 2 years, 4 Years, 5 Years **3. Dimensions of the Product –** 14-inch, 21-inch, 25 inches	**6**	**Level 4**	**CO4**

Output of Conjoint Analysis

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	18.500	.379	
	v1	5.500	.656	.374
	v2	4.167	.656	.284
	v3	-1.056	.656	-.072
	v4	3.333	.536	.262
	v5	1.250	.536	.098
	v6	-10.333	.536	-.812
	v7	1.583	.536	.124

V1, V2, V3 are codes related price
V4 V5 are codes related Longevity
V6, V7 are related to Dimension of the product
Classify the most preferred and least preferred combination of product attribute

Q. 4		Answer **Any two** from the following.			
	a.	Some students of BRIMS appeared for RBI exam for Grade B position. Following are the scores of these students. SPSS output for Discriminant Analysis is Provided here. **Construct** model using Discriminant analysis with help of output provided here. and use that model to predict result of BRIMS following students	**6**	**Level 3**	**CO3**

Name	**Written score**	**GD Score**	**PI Score**
Vikram	181	31	25
Swati	154	32	31
Sameer	155	33	32
Tanaya	156	34	33
Shweta	157	26	34
Tanvi	169	27	26

SPSS Output

Canonical Discriminant Function Coefficients

	Function
	1
Written score	.030
GD Score	.123
PI Score	.159
(Constant)	-10.126

Unstandardized coefficients

Functions at Group Centroids

Decision	Function
	1
Selected	2.762
Rejected	-1.707

Unstandardized canonical discriminant functions evaluated at group means

		B	SPSS output is given below for Cluster Analysis.	**6**	**Level 3**	**CO3**

Agglomeration Schedule

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	1	19	11.000	0	0	11
2	11	20	15.000	0	0	12
3	8	9	15.000	0	0	7
4	6	10	17.000	0	0	12
5	14	18	19.000	0	0	15
6	7	15	20.000	0	0	15
7	2	8	20.500	0	3	14
8	5	13	21.000	0	0	11
9	16	17	22.000	0	0	14
10	4	12	23.000	0	0	16
11	1	5	23.500	1	8	13
12	6	11	24.000	4	2	13
13	1	6	26.375	11	12	16
14	2	16	28.000	7	9	17
15	7	14	28.000	6	5	18
16	1	4	32.750	13	10	19

		17	2	3	32.800	14	0	18			
		18	2	7	36.250	17	15	19			
		19	1	2	44.420	16	18	0			
		Develop number of clusters using SPSS output provided above.									
	c.	MMS Marketing students have conducted market research for site selection for the restaurant in thane region. They have used Area in square meters, Population in hundreds and Distance from stations as their independent variables. In order to assess impact of these independent variable on Daily sales they have collected data of 28 restaurant in thane region and applied regression analysis on the data collect with the following results							**6**	**Level 3**	**CO3**
		Coefficients									
		Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.			
				B	Std. Error	Beta					
		1	(Constant)	13151.519	2001.204		6.572	.000			
			Area sq. meters	21.952	1.793	1.140	12.246	.000			
			Population hundreds	27.408	5.507	.397	4.977	.000			
			Distance from station	976.274	312.686	.182	3.122	.005			
		a. Dependent Variable: sale per day									
		Develop regression model using above output of SPSS and forecast expected sales when									
		Area in sq. meters		**Population in hundreds**		**Distance from Station in km**					
		1,000.00		100.00		2					
		700.00		200.00		3					
		800.00		150.00		5					
Q. 5		Answer **Any two** from the following.									
	a.	**Explain** the concept of research design							**6**	**Level 2**	**CO2**
	b	**Explain** the concept of sampling							**6**	**Level 2**	**CO2**
	c.	**Illustrate** the process of questionnaire designing							**6**	**Level 2**	**CO2**
Q. 6		Answer **Any two** from the following.									
	a.	**What** are subjective methods of sample size calculations							**6**	**Level 1**	**CO1**
	b	**What** is format of research report							**6**	**Level 1**	**CO1**
	c.	**What** is primary data							**6**	**Level 1**	**CO1**