

**VPM's**  
**DR VN BRIMS, Thane**  
**Programme: MMS (2022-24)**  
**Third Semester Regular Examination January - February 2024**

<b>Course Name:</b>	Marketing Research & Analysis	<b>Course Code</b>	M-314
<b>Roll No.</b>		<b>Marks</b>	60
<b>Total No. of Questions</b>	6	<b>Duration</b>	3 Hours
<b>Total No. of printed pages</b>	6	<b>Date</b>	07-02-2024

**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: -**

**Q. No 1** (All Questions are Compulsory)

**Marks**      **BL**      **CO**

<b>Q. No.</b>	<b>Questions</b>			
<b>Q. 1</b>	Case/Case-let Study (500-800 words)			
	<p>Maharashtra Tourism Development Corporation (MTDC) is a governmental entity established to promote tourism in Maharashtra. Over the years, there has undoubtedly been an increase in the number of foreign tourists visiting the state. In the fiscal year 2019-20, Maharashtra welcomed 17.4 million foreign tourists, marking a 3.5% rise from the previous year. This surge in tourist arrivals significantly contributed to India's foreign exchange earnings. Despite this growth, there is a prevailing perception that India is not yet among the world's top holiday destinations, and there is considerable ground to cover. Addressing various barriers that discourage potential foreign tourists from choosing Maharashtra over other destinations is crucial. In light of these considerations, MTDC is actively contemplating a comprehensive study on the influx of foreign tourists in India over the past five years. The proposed study aims to achieve the following objectives:</p> <ol style="list-style-type: none"> <li>1) To determine the country-wise inflow of foreign tourists in the last five years.</li> <li>2) To create a profile of foreign tourists based on essential characteristics.</li> <li>3) To identify the preferences and demands of foreign tourists and evaluate the offerings available to them.</li> <li>4) To investigate the significant difficulties and challenges faced by tourists in India.</li> <li>5) To seek suggestions from foreign tourists for enhancing and promoting tourism in the country.</li> </ol>			

	a.	<b>Analyse</b> the details provided in the case and formulate a questionnaire for the study.	6	Level 4	CO4																																																																		
	b.	<b>Decide</b> relevant statistical tools which would be helpful in doing data analysis on collected data	6	Level 5	CO5																																																																		
<b>Q. 2</b>	<b>Answer Any one</b> from the following.																																																																						
	a.	<p>SpiceJet Airlines raised their fares in recently. . 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 relating to their perceptions and attributes of the air travel</p> <table border="1"> <thead> <tr> <th>Comp onents</th> <th>% of Variance</th> <th>Cumulative %</th> <th>Total</th> <th>% of Variance</th> <th>Cumulative %</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>31.775</td> <td>31.775</td> <td>3.041</td> <td>30.408</td> <td>30.408</td> </tr> <tr> <td>2</td> <td>30.499</td> <td>62.274</td> <td>3.030</td> <td>30.296</td> <td>60.703</td> </tr> <tr> <td>3</td> <td>18.447</td> <td>80.720</td> <td>2.002</td> <td>20.017</td> <td>80.720</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>Determine</b> the number of factors from the given data</p>	Comp onents	% 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						6	Level 5	CO5
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	b.	<p style="text-align: center;"><b>Rotated Component Matrix<sup>a</sup></b></p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="3">Component</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>on time</td> <td>.954</td> <td>-.004</td> <td>.153</td> </tr> <tr> <td>seats are comfortable</td> <td>.037</td> <td>.090</td> <td>.962</td> </tr> <tr> <td>food offered</td> <td>.912</td> <td>.037</td> <td>-.052</td> </tr> <tr> <td>auto promotion to higher classes</td> <td>-.062</td> <td>.965</td> <td>.096</td> </tr> <tr> <td>Influence of friends and family</td> <td>.578</td> <td>.149</td> <td>-.325</td> </tr> <tr> <td>condition of aircraft</td> <td>.959</td> <td>-.040</td> <td>.021</td> </tr> <tr> <td>benefits of frequently travelling</td> <td>-.028</td> <td>.985</td> <td>-.005</td> </tr> <tr> <td>it suits my time schedule</td> <td>-.077</td> <td>.175</td> <td>.958</td> </tr> <tr> <td>Influence of mother</td> <td>-.184</td> <td>-.389</td> <td>-.086</td> </tr> <tr> <td>suits my life style</td> <td>-.016</td> <td>.956</td> <td>.097</td> </tr> </tbody> </table> <p>Extraction Method: Principal Component Analysis.</p>		Component			1	2	3	on time	.954	-.004	.153	seats are comfortable	.037	.090	.962	food offered	.912	.037	-.052	auto promotion to higher classes	-.062	.965	.096	Influence of friends and family	.578	.149	-.325	condition of aircraft	.959	-.040	.021	benefits of frequently travelling	-.028	.985	-.005	it suits my time schedule	-.077	.175	.958	Influence of mother	-.184	-.389	-.086	suits my life style	-.016	.956	.097	6	Level 5	CO5																			
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Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

**Decide** the variables linked with factor

**Q. 3**

Answer **Any one** from the following.

**a.**

The marketing manager of Apex is keen on understanding customer perceptions regarding the diverse tangible and intangible features offered by its micro-tip pen. The manager has pinpointed the crucial attributes of the product that hold significance for customers, along with the corresponding levels that the company is prepared to incorporate and provide to customers. The essential attributes of the micro-tip pen include:

1. The pricing of the micro-tip pen.
2. The color of ink in the refill.
3. The diameter of the tip of the refill.

For each attribute, Apex has defined distinct levels:

1. Pricing: Rs. 5, Rs. 7, and Rs. 10.
2. Ink color: Blue, black, and red.
3. Tip diameter: 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**

A company wants to introduce new coffee maker and wish to assess how consumers evaluate the various attribute levels of the product.

- Time taken to make coffee (in minutes) – 10; 15; 18; 20
- Price (Indian Rupees) – 5,000; 7,000; 7,500
- Capacity (in standard cups) – 5; 10; 15

Output of Conjoint Analysis

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	17.500	.379	
	v1	4.500	.656	.374
	v2	4.167	.656	.284
	v3	-1.056	.656	-.072
	v4	5.333	.536	.262
	v5	2.250	.536	.098
	v6	-	.536	-.812
	v7	10.333	.536	.124

6

	<p>V1 ,V2,V3 are codes related time  V4 V5 are codes related price  V6,V7 are related to capacity  <b>Classify</b> the most preferred and least preferred combination of product attribute</p>		<b>Level 4</b>	<b>CO4</b>																																																		
<b>Q. 4</b>	Answer <b>Any two</b> from the following.																																																					
	<p><b>a.</b></p> <p>Management students appeared for ICUC Bank exam for Management trainee position. Following are the scores of these students. SPSS output for Discriminant Analysis is Provided here.</p> <p><b>Construct</b> model using Discriminant analysis with help of output provided here. and use that model to predict final result of BRIMS following students</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Written score</th> <th>GD Score</th> <th>PI Score</th> </tr> </thead> <tbody> <tr> <td>Ram</td> <td>290</td> <td>35</td> <td>35</td> </tr> <tr> <td>Sita</td> <td>244</td> <td>32</td> <td>31</td> </tr> <tr> <td>Geeta</td> <td>255</td> <td>33</td> <td>32</td> </tr> <tr> <td>Rohit</td> <td>246</td> <td>34</td> <td>33</td> </tr> <tr> <td>Sunil</td> <td>267</td> <td>36</td> <td>34</td> </tr> <tr> <td>Anil</td> <td>239</td> <td>27</td> <td>36</td> </tr> </tbody> </table> <p><b>SPSS Output</b></p> <p><b>Canonical Discriminant Function Coefficients</b></p> <table border="1"> <thead> <tr> <th></th> <th>Function</th> </tr> <tr> <th></th> <th>1</th> </tr> </thead> <tbody> <tr> <td>Written score</td> <td>.140</td> </tr> <tr> <td>GD Score</td> <td>.323</td> </tr> <tr> <td>PI Score</td> <td>.459</td> </tr> <tr> <td>(Constant)</td> <td>10.126</td> </tr> </tbody> </table> <p>Unstandardized coefficients</p> <table border="1"> <thead> <tr> <th colspan="2"><b>Functions at Group Centroids</b></th> </tr> <tr> <th></th> <th>Function</th> </tr> <tr> <th>Decision</th> <th>1</th> </tr> </thead> <tbody> <tr> <td>Selected</td> <td>2.762</td> </tr> <tr> <td>Rejected</td> <td>-2.007</td> </tr> </tbody> </table> <p>Unstandardized canonical discriminant functions evaluated at group means</p>	Name	Written score	GD Score	PI Score	Ram	290	35	35	Sita	244	32	31	Geeta	255	33	32	Rohit	246	34	33	Sunil	267	36	34	Anil	239	27	36		Function		1	Written score	.140	GD Score	.323	PI Score	.459	(Constant)	10.126	<b>Functions at Group Centroids</b>			Function	Decision	1	Selected	2.762	Rejected	-2.007	6	<b>Level 3</b>	<b>CO3</b>
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	<p><b>b</b></p> <p>Godrej India Ltd wants to map the profile of the its target customers in terms of lifestyle, attitude, and perceptions. Godrej marketing manager prepares a set of number of statements, which according to the market research team will measure many of the variables of interest. For this research 5 point scale is used scale( 1 =completely agree ,5= completely disagree)</p>	6																																																				

SPSS out is given below for Cluster Analysis

Level  
3

CO3

**Final Cluster Centers**

	Cluster			
	1	2	3	4
do you think foreign made product are superior	3.00	3.00	1.88	2.20
do you prefer paying by credit card for convenience	4.20	2.50	2.00	3.00
a computer is necessity than luxury	1.80	2.00	2.50	4.00
liberalisation made india companies better	2.40	1.00	2.63	3.00
i prefer old hindi songs	3.00	2.50	2.25	3.60
veg food more nutritous than non veg	4.40	1.50	2.00	3.00
enjoy net surfing	1.60	2.50	1.88	2.60
TV ineegral part of life	3.20	1.50	2.75	3.20
women education important part for develoment of nation	3.60	1.50	2.63	2.60
movies are mejor source of entertainment	2.20	3.00	1.88	3.20
people like quality product	4.80	3.00	1.63	3.80
economic status of india will improve	3.00	2.00	1.88	2.60
people prefer ready made cloths	2.00	1.00	1.88	2.20
i prefer food outside every	2.60	2.00	2.50	1.60
comp edu should be included in primary	4.20	1.50	2.25	3.20

**Make use of** SPSS output provided above and describe attributes of every cluster

- c. Marketing students have conducted market research for site selection for the Coaching Centre in thane region. They have used Area in square feet, 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 30 coaching centres in thane region and applied regression analysis on the data collect with the following results

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	121.519	2001.204		6.572	.000
	Area_sq_feet	31.952	1.793	1.140	12.246	.000
	Population_hundreds	37.408	5.507	.397	4.977	.000
	Distance_km from station	76.274	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 feet	Population in hundreds	Distance from Station in km
2500	100.00	2
3000	200.00	3
1500	450.00	5

6

Level  
3

CO3

<b>Q. 5</b>	Answer <b>Any two</b> from the following.			
<b>a.</b>	<b>Compare</b> the Marketing intelligence with Marketing research	6	Level 2	CO2
<b>b.</b>	<b>Explain</b> the concept of primary and secondary data	6	Level 2	CO2
<b>c.</b>	<b>Explain</b> concept of sampling	6	Level 2	CO2
<b>Q. 6</b>	Answer <b>Any two</b> from the following.			
<b>a.</b>	<b>What</b> are different methods of sample size calculations	6	Level 1	CO1
<b>b.</b>	<b>What</b> are different methods of demand forecasting	6	Level 1	CO1
<b>c.</b>	<b>List</b> various elements of research report	6	Level 1	CO1