



**MBA DEGREE EXAMINATIONS: JUNE 2015**

(Regulation 2012)

Third Semester

**MASTER OF BUSINESS ADMINISTRATION**

MBA627: Research Methods In Business

**Time: Three Hours**

**Maximum Marks: 100**

**Case Study:-**

**PART A (1 x 20 = 20 Marks)**

1. Eminem Engineers are in the production of Bearings for industrial use. They Operate in many territories in India. In order to understand what aspect affect their sales they collected data about market potential in the territory, number of dealers in the company, number of existing customers, intensity of competitors activity, number of service staff available, number of dealers in the territory and the number of sales people in the territory. The results of Multiple Regression are given below.

- a) Identify the dependent and Independent variables
- b) Is this model reliable? Why?
- c) What are the variables that have a high impact on the dependent variable?
- d) How can the company use this in their future decisions?

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.988 <sup>a</sup>	.977	.960	4.41843

a. Predictors: (Constant), Number of Existing Customers, Intensity of competitors activity, Market potential in the territory, Number of service staff available, Number of dealers in the company, Number of sales persons in the territory  
 b. Dependent Variable: Sales in the territory

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6607.553	6	1101.259	56.410	.000 <sup>a</sup>
	Residual	156.180	8	19.523		
	Total	6763.733	14			

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.242	5.978		-.710	.498
	Market potential in the territory	.241	.073	.466	3.309	.011
	Number of dealers in the company	.858	.624	.172	1.375	.206
	Number of sales persons in the territory	.977	.423	.371	2.309	.050
	Intensity of competitors activity	-1.788	1.339	-.080	-1.335	.218
	Number of service staff available	.295	1.981	.020	.149	.885
	Number of Existing Customers	.011	.182	.009	.061	.953

**Answer all the Questions:-  
PART B (10 x 2 = 20 Marks)**

2. Define a Research Design.
3. Name some experimental research designs.
4. Difference between a questionnaire and a schedule.
5. Discuss the difference between reliability and validity.
6. What are the types of t test? Give example.
7. What are the precautions while using secondary data?
8. Give some applications of Chi Square test.
9. Give an Example for a Discriminant function? Explain the same.
10. What is the difference between primary and secondary data?
11. Give two applications of Cluster Analysis in Business Situations.

**PART C (4 x 15 = 60 Marks)**

12. a) Maggi brand ambassadors were warned of action by the government if their advertisements for Nestle's popular noodle product were found to be misleading. While the probe was expanded to test Maggi noodle samples from across the country, Nestle India claimed that it has got tested samples in an external laboratory as well as in-house and the product has been found "safe to eat". However the samples have been collected from all over india to test for the same. The top management at Nestle believe that this news would have affected customers reliability about the product. Formulate a research problem, and its research design

**(OR)**

- b) KG Denim factory in Coimbatore has experienced a dip in sales in the last 6 to 8 months. Apply the logic of the different types of research to this problem.

13. a) Discuss in details the options (types) available to a researcher when deciding a sample? What are the situations in which these methods will be useful?

(OR)

- b) i) A famous online book store which has an excellent customer base in India, (7) wants to explore whether the three different offers given by them have been perceived and used differently by the customers. The information regarding the volume of book purchases on a daily basis were collected. The offers were a) gifting sample personal care products, b) money back through customized cheques based on the value of the purchase and c) gifting a commemorative chess set. From the data collected a one way ANOVA was used to analyse whether the sales of books differ according to the kind of offers given. Interpret the results of the test and how you would use this information in the future decisions of the company related to offers.

**ANOVA - Book purchases**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.308	2	2.154	1.109	.334
Within Groups	186.489	96	1.943		
Total	190.797	98			

- ii) Discuss the difference between Parametric and Non Parametric Tests (8)

14. a) A company is in a dilemma with regard to a purchase of a new machine. The company decides to test the production capacity of two machines, the first one to be purchased from an indigenous manufacturer, and the second to be imported from a foreign country. In order to determine which machine to purchase, the company was able to collect the details of the productivity of the machine from their other plants for a period of one month ( which was 22 working days)

Group Statistics								
	Machine	N	Mean	Std. Deviation	Std. Error Mean			
Score	Indegenous	22	58.095	8.5395	1.8206			
	imported	22	61.605	8.2162	1.7517			
		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Score	Equal variances assumed	2.132	.152	-1.389	42	.172	-3.5091	2.5265
	Equal variances not assumed			-1.389	41.938	.172	-3.5091	2.5265

Discuss how would you draw inferences, what test was used and why? From the above test and what will be your decision in the purchase of the new machine for your company?

(OR)

- b) Formulate a real time management situation that requires the use of Factor Analysis. Write the objective, assumptions, method of carrying out a factor Analysis and illustrate the data to be reported for interpretation

15. a) The latest Dairy milk advertisement which has its story board as was tested for appeal amongst its viewers. Formulate the hypothesis and test the same , Interpret using all the steps in hypothesis testing ( TV Ad - A family at the dinner table. The meal is over, but the entire family claims and craves for a last piece of Dairy Milk chocolate which is taken by the grandmother)

**Test Statistics<sup>a</sup>**

	Advertisement's appeal
Mann-Whitney U	523.000
Wilcoxon W	1226.000
Z	-2.266
Asymp. Sig. (2-tailed)	.023

a. Grouping Variable: Young Vs Old Customer

(OR)

- b) Discuss in detail the format of Research Reports. Explain the format of citing the references.

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