PGDM(IB) 2016 - 18
Business Research Methods
Subject Code- IB-201
Trimester – II, End-Term Examination: December 2016

Time allowed: 2 hrs 30 min | Max Marks: 50

Roll No: _____

Instruction: Students are required to write Roll No on every page of the question paper, writing anything except the Roll No will be treated as **Unfair Means.** In case of rough work please use answer sheet.

Sections	No. of Questions to attempt	Marks	Marks
A	3 out of 5(Short Questions)	5 marks each	3*5 = 15
B	2 out of 3 (Long Questions)	10 marks each	2*10= 20
C	Compulsory Case Study	15 marks	15
		Total Marks	50

Section A

A1. What is the importance of a research report for a researcher? Why does a researcher have to incorporate an executive summary in the research report?

A2. Why is small sample size adequate for an exploratory study but not for a descriptive one? What kind of information will not be reliable if a small sample is used in a descriptive study?

A3. Describe any marketing research problem in which both survey and observation methods could be used for obtaining the information needed.

A4. Under what circumstances a researcher should apply factor analysis?
What hypothesis is examined by Bartlett's test of sphericity?

A5. A psychologist is interested in knowing whether phobic responses are specific to a particular object, or whether they generalize to other, perceptually similar, objects. Twenty-four spider-phobes were used in all: 12 were exposed to a real tarantula spider and their subsequent anxiety was measured and the remaining 12 were shown only a toupee (a wig) that was perceptually similar to the spider (i.e. hairy and round). Likewise, their anxiety was measured.

Below is the output for the SPSS Independent t-test procedure to compare the means of two groups.

Group Statistics

Condition		N	Mean	Std. Deviation	Std. Error Mean
Anxiety	Picture	12	40.00	9.293	2.683
	Real spider	12	47.00	11.029	3.184

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Anxiety	Equal variances assumed	.782	.386	-1.684	22	.107	-7.000	4.163	-15.634	1.634
	Equal variances not assumed			-1.681	21.38	.107	-7.000	4.163	-15.634	1.634

Formulate all possible hypotheses and infer conclusions.

Section B

B1. A manufacture would like to survey users to determine the demand potential for a new power press. The new press has a capacity of 500 tons and costs$22500. It is used for forming products from lightweight and heavyweight steel and can be used by automobile, construction equipment, and major appliance manufacturers.

a) Identify the population and the sampling frame that could be used.

b) Describe how a simple random sample can be drawn using the identified sampling frame.

c) Which sampling technique would you recommend? Why?

B2. What is the purpose of questionnaires and observation forms? What are the guidelines available on deciding on questions wording?

B3. A research analyst would like to predict physical and downloaded album sales from a set of predictors viz. amount of money spent on advertising the album, number of plays on radio and attractiveness of band. The data file contains 200 observations; SPSS output are here for your reference:

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.815[a]	.665	.660	47.087	1.950

a. Predictors: (Constant), Attractiveness of Band, Advertsing Budget (Thousands of Pounds), No. of plays on Radio

b. Dependent Variable: Album Sales (Thousands)

ANOVA

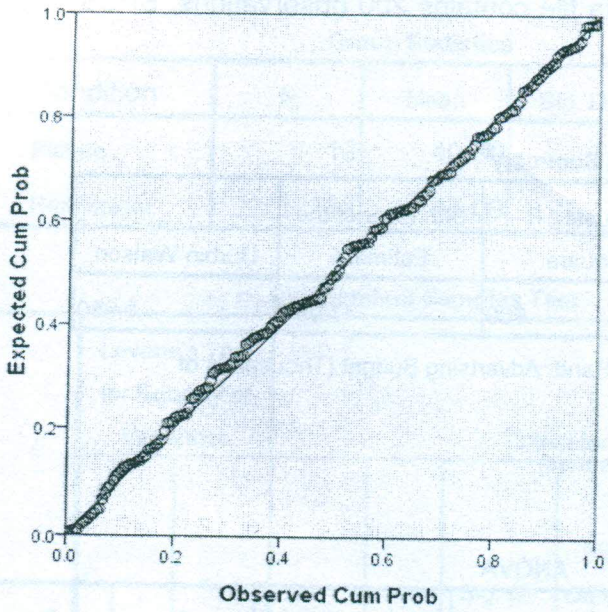
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	861377.418	3	287125.806	129.498	.000
	Residual	434574.582	196	2217.217		
	Total	1295952.000	199			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-26.613	17.350		-1.534	.127
	Advertsing Budget (Thousands of Pounds)	.085	.007	.511	12.261	.000
	No. of plays on Radio	3.367	.278	.512	12.123	.000
	Attractiveness of Band	11.086	2.438	.192	4.548	.000

a. Dependent Variable: Album Sales (Thousands)

Normal P-P Plot of Regression Standardized Residual



a) What is the regression equation? What does the coefficient of determination indicate?
b) How good is the generated regression model?
c) Which is the most important predictor, which is the least?
d) Interpret P-P Plot of Regression Standardized Residual

SECTION C

Case Study- Hindustan Unilever Limited (HUL): Using Market Research to build brands

Hindustan Unilever Limited (HUL) is an Indian consumer goods company based in Mumbai, Maharashtra. It is owned by Anglo-Dutch company Unilever which owns a 67% controlling share in HUL as of March 2015 and is the holding company of HUL.HUL's products include foods, beverages, cleaning agents, personal care products and water purifiers.

HUL was established in 1933 as Lever Brothers and, in 1956, became known as Hindustan Lever Limited, as a result of a merger between Lever Brothers, Hindustan Vanaspati Mfg. Co. Ltd. and United Traders Ltd.

Hindustan Unilever's distribution covers over 2 million retail outlets across India directly and its products are available in over 6.4 million outlets in the country. As per Nielsen market research data, two out of three Indians use HUL products.

The stated purpose of the company is to "provide products and services of superior quality and value that improve the lives of the world's consumer."

Over time HUL has proven to be an innovator in creating brands and understanding consumers by making extensive use of marketing research. Building brands has been a cornerstone of HUL's success. The marketers at HUL undertake marketing research to determine a brand's equity and then make sure everyone understands it, because that drives every decision made about the brand. They have always thought about the consumers and why the product would be relevant to the consumers. They believe in catering to the experience of the consumer. Their principles of marketing haven't changed, but their methods of targeting and identifying consumers have changed to meet the increasingly complicated consumer base. They have changed their key strategy from mass marketing to consumer targeting. Marketing research has revealed targeting as the future of brand marketing and brand management. HUL believes this takes much more than a focus group, and they want to spend time with consumers and understand their behaviours.

One of the areas that HUL researches constantly is the in-store experience of the consumer. They see this as another way of connecting with consumers and making their experience a better one. One of the ways they enhance this is by partnering with retailers and developing the in-store experience to please their consumers. Pleasing the consumers has become more difficult today because the consumer has less time and more expectation. Packaging is also important in conveying a message to the consumer. It is a key challenge because labelling has become more complex and consumers are demanding more.

HUL marketing has been innovative and pioneering over the years and one would expect the same from them in the future. They are constantly using marketing research to solve the problems of today and to build brands that will continue to be leaders tomorrow.

Questions:

a) Discuss the role that marketing research can play in helping HUL build its various brands.

b) HUL is considering further increasing its market share. Define the management decision problem.

c) According to the HUL vice president of marketing, cavity and gum protection, whiteness of teeth, taste, fresh breadth and price are all independent variables that affect the preference for a tooth paste brand. Assume that in a survey, each of the leading toothpaste brand (including Closeup) is evaluated on each of the independent variable using a 7-point scale with 1 = poor and 7 = excellent. Preference for toothpaste brand is also measured on a 7-point scale with 1 = not at all preferred and 7 = greatly preferred. What statistical technique(s) would you use to answer the following questions:

(i) The sample is divided into two groups : regular users of Closeup and users of other brands. Do these two groups differ in terms of their ratings of Closeup on price?

(ii) The sample is divided into three groups : heavy, medium and light users of Closeup toothpaste. Do the three groups differ in terms of preference for Closeup?