

PGDM (RM), 2020-22
Research Methodology
RM-307

Trimester – III, End-Term Examination: April 2021

Time allowed: 2 hrs 30 min

Max Marks: 50

Roll No: _____

Instruction: Students are required to write Roll No on every page of the Answer Sheet. All other instructions on the question paper / notifications should be followed meticulously.

Sections	No. of Questions to attempt	Marks	Marks
A	3 questions with internal choices and CILO covered	10 Marks each	3*10 = 30
B	Compulsory Case Study	20 Marks	20
		Total Marks	50

SECTION A

A1.

(CILO 1)

- I. Wendy's Dosa is a chain of fast-food restaurants located in major metropolitan areas in the southern part of the country. Sales have been growing very slowly for the last two years. Management has decided to add some new items to the menu, but first they want to know more about their customers and their preferences. What kind of research design is appropriate? Why?

(marks 10)

OR

- II. Nature's basket have recently launched soymilk- based beverages called 'So Good' in ready- to- consume carton. The brand is positioned on the health platform but emphasize that unlike many of soy-based drinks, 'So Good' has a great taste. The company would like to commission a research to determine the initial consumer trial and user opinion of the product. Design a flow chart to develop a questionnaire for

the study.

(marks 10)

A2.

(CILO 2)

- I. 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 (in Rs.), number of plays on radio and attractiveness of band. The data file contains 200 observations; SPSS output are here for your reference:

(marks 10)

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, Advertising Budget (in Rs.), No. of plays on Radio

b. Dependent Variable: Album Sales (Thousands)

ANOVA

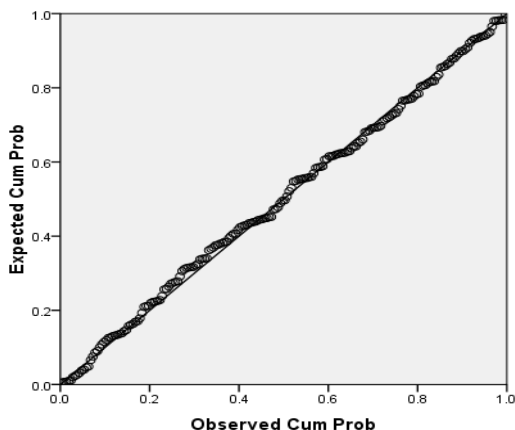
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	861377.418	3	287125.806	129.498	.000
	Residual	434574.582	196	2217.217		
	Total	1295952.000	199			

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-26.613	17.350		-1.534	.127
	Advertsing Budget (in Rs.)	.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	.056

a. Dependent Variable: Album Sales (Thousands)

Normal P-P Plot of Regression Standardized Residual



- a) What does R, R² and adjusted R² indicate?
- b) Formulate and interpret the hypothesis for ANOVA table?
- c) Formulate the regression equation? Which is the most important predictor, which is the least?
- d) Interpret P-P Plot of Regression Standardized Residual

OR

II. 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						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the 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 assumptions, hypotheses and infer conclusions. (marks 10)

A3. (CILO 3)

- I. What is the importance of Synopsis in a research project? What all you will include in a Synopsis? (10marks)

OR

- II. Your company is experiencing a sudden drop in the sales of one of your major products
A. A research proposal to examine the possible causes suggests investigating competitive activity. Another suggests studying environmental variables including government policies that could have adversely influenced the sale of **A**. Which of these proposals would you consider? Why? If you are likely to consider both the options inadequate, give your reasons. (10marks)

SECTION B

Case Study- Netmeds.com acquire KiViHealth

(CILO 1 & 2)

Netmeds.com is India's one of the biggest online Pharmacy store. It was founded in the year 2015. On 25 March 2019, Netmeds.com announced that it would be acquiring health-tech startup KiViHealth in a cash and stock deal and said that it would invest close to \$10 million to integrate and grow KIVI Healthcare Business Segment. KiViHealth is a practice/clinic management platform which allows doctors to generate digital prescriptions. The app also provides an appointment booking module and patient engagement tool along with billing/ invoicing solutions. The platform provides doctor-patient collaboration tools for a fully digitized clinic, said a press note. It uses AI, automation and visual aids to create a patient-centric digital healthcare management information system. According to the note, KiVi Health manages over 2 million patient records and provides services to more than 2,000 doctors through its website and mobile app. It was founded in 2015 by Indian School of Business Alumni, Bhanu Mahajan and Rajandeep Singh. Speaking on the acquisition, Founder and CEO of Netmeds.com, Pradeep Dadha said, "We continue to develop a well-rounded healthcare eco-system around Netmeds.com The acquisition of KiViHealth is a shining example of an innovative, technology powered, next-generation health care application that caters to the needs of a modern-day doctor. With this acquisition, Netmeds.com adds to the portfolio of technology driven solutions as it transforms the brand into a complete healthcare product and service company." Pleasing the consumers has become more difficult today because the consumer has less time and more expectation. Netmeds.com targets to capture more market share in the health care industry. 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) Design a suitable research design to analyse how the company can increase its market share. (10 marks)
- b) From the previous data Netmeds.com wants to find if the qualification (Intermediate, undergraduate and post graduate) decide the amount of money customer spend in a month. SPSS output for 1 way Analysis of Variance is given below.

Test of Homogeneity of Variances

Amount spent (in Rs)

Levene Statistic	df1	df2	Sig.
59.733	2	471	.000

ANOVA

Amount spent (in Rs)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.944E10	2	4.472E10	434.481	.000
Within Groups	4.848E10	471	1.029E8		
Total	1.379E11	473			

Robust Tests of Equality of Means

Amount spent (in Rs)

	Statistica	df1	df2	Sig.
Welch	162.200	2	117.312	.000
Brown-Forsythe	306.810	2	93.906	.000

a. Asymptotically F distributed.

- I. Formulate hypotheses for ANOVA and infer conclusions. (marks 5)
- II. Formulate hypothesis for testing homogeneity of variances and infer conclusions. (marks 5)