Subject	BUSINESS RESEARCH METHODS		
Roll No.		Marks	60 Marks
Total No. of Questions	7	Duration	3 Hours
Total No. of Printed Pages	3	Date	23rd April 2018

Q1) 20 Marks (Compulsory)

   A. Explain what are the research applications in all functional areas of a company (like HR/Personnel Management, Sales/Marketing, Accounting, Finance, Production/Operations Management) with suitable example of each application..

   B. Explain the importance of ethics in research with suitable examples.

Attempt Any FOUR from the remaining SIX questions

Q2) Any two from (a) or (b) or (c) ------------------- (5x2) = 10 Marks

   a) Explain the features of a good research study.

   b) Distinguish between nominal and ordinal scales. Explain with an example.

   c) What are the different methods of sampling? Explain with examples.

Q3) Any two from (a) or (b) or (c) ------------------- (5x2) = 10 Marks

   a) What is the difference between Research Objectives and Research Motivations? Write different objectives and motivations.

   b) Distinguish between qualitative and quantitative research. Explain situation where qualitative research would be more suitable.

   c) Enlist some of the Scientific Misconducts.

Q4) Any two from (a) or (b) or (c) ------------------- (5x2) = 10 Marks

   a) Explain what is cross sectional study and give an example.

   b) What is ideal structure of research report? Explain in detail each section.

   c) Explain different types of variables in research.

Q5) Any two from (a) or (b) or (c) ---------------- (5x2) = 10 Marks

   a) Explain difference between Management Decision Problem and Management Research Problem. Give two examples.

   b) What are projective techniques? Explain and give two examples.

   c) Explain different types of data viz: nominal, ordinal, interval and ratio data. Give an example of each type.

Q6) Any two from (a) or (b) or (c) ------------------- (5x2) = 10 Marks

   a) Explain the errors affecting a research design.

   b) Explain what is 'attitude' with respect to Business Research Methods. Give two examples.

   c) A carcinogenicity study was conducted to examine the tumor potential of a drug product scheduled for initial testing in humans. A total of 300 rats (150 males and 150 females) were studied for a 6-month period. At the beginning of the study, 100 rats (50 males, 50 females) were randomly assigned to the control group, 100 rats (50 males, 50 females) to the low-dose group, and the remaining 100 (50 males, 50 females) to the high-dose group. On each day of the 6-month period, the rats in the control group received an injection of an inert solution, whereas those in the drug groups received an injection of the solution plus drug. The sample data are shown in the accompanying table. Is there a significant

association between Number of tumors and dose groups? Check at 5% significance. Snap shot of data and test output is given below. (5 marks)

	Number of Tumors	
Rat Group	**One or More**	**None**
Control	10	90
Low dose	14	86
High dose	19	81

NumberTumors * Group Crosstabulation

Count

		Group			Total
		Control	HighDose	LowDose	
NumberTumors	None	90	81	86	257
	OneorMore	10	19	14	43
Total		100	100	100	300

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.312^a	2	.191
Likelihood Ratio	3.327	2	.189
N of Valid Cases	300		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.33.

Under the light of the question investigated please formulate the answer under the following heads

i.   Formulate the requisite null and the alternative hypothesis and identify the relevant markers (values) from the above output to do interpretation.

ii. Interpret the result and conclude.

Q7) Any two from (a) or (b) or (c) -------------------- (5x2) = 10 Marks
   a) Distinguish between: exploratory and descriptive research designs.
   b) What do you understand by the term 'Mystery Shopper'? How is it used in business research methodology?
   c) M&M Mars Company has varied the mix of colors for M&M'S Plain Chocolate Candies over the years. These changes in color blends are the result of consumer preference tests. Most recently, the color distribution is reported to be 13% brown, 14% yellow, 13% red, 20% orange,24% blue, and **16% green. You** open up a 14-ounce bag of M&M'S and find 61 brown, 59 yellow, 49 red, 77 orange, 141 blue, and 88 green. Use a goodness- of-fit test to examine how well this bag fits the percents stated by the M&M Mars Company. Use 5% level of significance for testing. Snap shot of data and test output is given below.

color_id

	Observed N	Expected N	Residual
Brown	61	62.5	-1.5
Yellow	59	67.4	-8.4
Red	49	62.5	-13.5
Orange	77	96.2	-19.2
Blue	141	115.5	25.5
Green	88	70.9	17.1
Total	475		

Test Statistics

	color_id
Chi-Square	17.619[a]
df	5
Asymp. Sig.	.003

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 62.5.

Under the light of the question investigated please formulate the answer under the following heads
   i.   Formulate the requisite null and the alternative hypothesis and identify the relevant markers (values) from the above output to do interpretation.
   ii.   Interpret the result and conclude.