Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER II (OLD) – EXAMINATION – SUMMER - 2017

Subject Code: 1721408 **Date: 11/05/2017**

Subject Name: Research Methodology

Time:10:30AM-01:00 PM **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain types of research with example.	**07**
	(b)	Explain different steps involved in a research process in detail.	**07**
Q.2	**(a)**	Explain following terms in context of Research: 1. Hypothesis 2. Z-test and t-test 3. Chi-square test	**07**
	(b)	What are research problem and research gaps? Why it is needed? Explain in detail.	**07**
		OR	
	(b)	What do you mean by Sample Design? What points should be taken into Consideration by a researcher in developing a research design.	**07**
Q.3	**(a)**	Differentiate complex random sampling and Simple Random sampling.	**07**
	(b)	Write a short note on: 1) Descriptive Design 2) Experimental Design	**07**
		OR	
Q.3	**(a)**	What do you mean by data collection? Explain one data collection technique in detail with example.	**07**
	(b)	Explain literature survey for the research work in details.	**07**
Q.4	**(a)**	Can you compare Stratified sample and A cluster Sample with example?	**07**
	(b)	Explain the following terms: (i) research methodology (ii) research in decision Making (iii) research method (iv) research Objective (v) Scaling (vi) ANOVA (vii) Problem Statement	**07**
		OR	
Q.4	**(a)**	Write short note on: secondary data and primary data collection with example	**07**
	(b)	What do you mean by Corelational analysis ANOVA? Explain in details.	**07**
Q.5	**(a)**	Write a short note on 1. Latin-square design 2. Central-limit theorem.	**07**
	(b)	How to express advantages of different types of Report? Explain with example.	**07**
		OR	
Q.5	**(a)**	Prepare the guideline for preparing a questionnaire in research.	**07**
	(b)	1. Difference between a technical report and a popular report. 2. What should be the role of a researcher before publishing a survey paper?	**07**

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