

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: **07**
 1. Hypothesis 2. Z-test and t-test 3. Chi-square test
 (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: **07**
 (i) research methodology (ii) research in decision Making (iii) research method
 (iv) research Objective (v) Scaling (vi) ANOVA (vii) Problem Statement
- 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. **07**
 2. What should be the role of a researcher before publishing a survey paper?
