

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**Ph.D. COURSE WORK EXAMINATION – REMEDIAL – SUMMER 2023**

**Subject Code: PHD2001**

**Date: 02/07/2023**

**Subject Name: Research Methodology (Sciences)**

**Time: 01:30 PM to 03:00 PM**

**Total Marks: 35**

**Instructions:**

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

- Q.1** (a) Describe in brief the difference between the following: (i). Applied vs fundamental research, (ii). Descriptive vs Analytical Research **10**
- (b) State five qualities of good research. **05**
- Q.2** (a) Describe in brief the techniques of defining a research problem. **05**
- (b) Define your research problem in brief, stating the objective and usefulness in the real world. **05**
- Q.3** (a) Describe in brief the null and alternate Hypothesis. **05**
- (b) Draw a schematic diagram for the Types of Research Hypothesis. **05**

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