

Total No. of Questions : 06]

SEAT No. :

P3791

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[4960] - 1309

**M.E. (Computer Engineering)**  
**RESEARCH METHODOLOGY**  
**(2013 Pattern) (Semester-I) (Credit System)**

*Time : 3 Hours]*

*[Max. Marks : 50*

*Instructions to the candidates:*

- 1) *Answer any five questions.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

**Q1)** a) Explain basic types of research in brief. Distinguish between research methods and research methodology. [9]

OR

b) What are the steps, necessary to effectively carry out the research? [9]

**Q2)** a) Explain in brief the basic types of research. [8]

OR

b) What is importance of survey in research? How it is conducted? [8]

**Q3)** a) What is hypothesis? Explain the procedure for hypothesis testing. Explain different characteristics the hypothesis must possess in order to be a good research. [8]

OR

b) Explain “principles of ethics” with types. [8]

**P.T.O.**

**Q4) a)** What are the different tools and techniques of data collection and analysis used in research? [9]

OR

**b)** Suppose that in a company there is the following staff: [9]

Male, full-time: 90

Male, part-time: 18

Female, full-time: 9

Female, part-time: 63

Total: 180

Take a sample of 40 staff, stratified according to the above categories.

**Q5) a)** Explain the significance of a research report and narrate the various steps involved in writing such a report. [8]

OR

**b)** Here are the scores for 10 students on two scale variables: number of absences from class in one semester and examination grades. Is skipping class related to exam grades ? [8]

Student	Absences	Exam Grade
1	4	82
2	2	98
3	2	76
4	3	68
5	1	84
6	0	99
7	4	67
8	8	58
9	7	50
10	3	78

**Q6) a)** Explain the characteristics of good research report. [8]

OR

**b)** What are the advantages and disadvantages of game theory? [8]

