

2015  
M.E. (Computer Science and Engineering)  
Second Semester  
CS-8202: Research Methodology  
(Common with ME Comp. Sci Cyber Security CSN - 8201)

Time allowed: 3 Hours

Max. Marks: 50

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Section.

x-x-x

1. (a) What do you understand by Literature Review? Justify its need.  
(b) Enumerate different types of Research and also Justify Research as a systematic process?  
(c) Define and list the Projective techniques used for data collection.  
(d) Define the term 'Hypothesis'. What are the different types of hypothesis?  
(e) Differentiate between Plagiarism and Self-Plagiarism. (5x2)

**Section A**

2. Differentiate between Descriptive, Conceptual, Analytical, Empirical and Ex-post Facto Research. What is the significance of research? (10)
3. Describe the different types of Probability Sampling and Non-Probability Sampling techniques giving suitable examples. (10)
4. Two sample polls of votes for two candidates A and B are taken from both rural and urban areas as given in the table below. Examine whether the nature of the area is related to voting preference in the election. (Chi-square (0.05) for 1 d.f. is 3.841). (10)

Area	Votes for		Total
	A	B	
Rural	620	380	1000
Urban	550	450	1000
Total	1170	830	2000

**Section B**

5. Compare and analyze the differences between Minitab and SPSS software? (10)
6. Discuss the primary components of a research proposal. What are the different types of research reports? Explain. (10)
7. Describe any software used for technical report writing taking a relevant example. (10)

x-x-x