SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS, FEROZEPUR
ROLL No:

Total number of Pages: [2]

Total number of questions: 05

M.Tech || ECE || 3rd Semester Research Methodology Subject Code: MREM1-101

Paper ID:

Time Allowed: 3 Hrs

Max Marks: 60

Important Instructions:

- Attempt all questions
- Each question carries equal marks
- Q.1. What do you mean by research? Explain about its different types in detail? CO1

OR

What are the objectives of a research? Briefly describe the different steps CO1 involved in a research process?

Q.2.. Point out the possible sources of error in measurement? Explain what are the CO2 different scales of measurement in research?

OR

What are the guiding considerations in the construction of a good CO2 questionnaire? Explain?

Q. 3. What are the conditions for application of Chi-Square test? If the weight of ten CO3 students of a class is as follows:

S.No	1	2	3	4	5	6	7	8	9	10
Weight (in kg)	38	40	45	53	47	43	55	48	52	49

Can we say that the variance of the distribution of weight of all the students from which the above sample of 10 students was drawn is equal to 20 kgs? Test this at 5 percent and 1 percent level of significance?

OR

What are the various data process operations? Explain why tabulation is CO3 considered essential in a research study?

Q. 4. What do you mean by multivariate techniques? Write a brief note on method of CO4 factor analysis?

OR

Discuss the steps involved in writing report? What precautions a researcher should take while writing a report?

Q.5. What are basic principles of experimental research design? Discuss about informal methods of experimental design in detail?

OR

What is a Hypothesis and what characteristics should a hypothesis have? Explain about its various types in detail?
