Paper / Subject Code: 50023 / Research Methodology 1T01878 - B.E. Computer Science & May 30, 2024 10:30 am - 01:30 pm Engineering (Artificial Intelligences & Machine Learning) (R-2019-20 C Scheme) (Sem-VIII) 50023 - Research Methodology QP CODE: 10056316 Total Marks: 80 (3/Hours) Note: 1. Question No. 1 is compulsory. 2. Attempt any **THREE** out of the remaining **FIVE** questions. 3. Assume suitable data if necessary. Q. 1. Write short notes on any FOUR questions. Write short note on "Objectives of Research" (a) Explain the meaning and significance of a Research design. (b) (c) Distinguish between null hypothesis and alternative hypothesis and Type I error and Type II error in hypothesis testing. (d) What is the necessity of defining a research problem? Explain What are the different forms in which a research work may be reported? Describe. Briefly describe the different steps involved in a research process. (10)(10)'Empirical research in India in particular creates so many problems for the researchers". State the problems that are usually faced by such researchers. Describe different types of research, clearly explaining the difference (10)

between applied and fundamental research.

(10)Explain the importance of Literature Review in Research

What do you mean by 'Sample Design'? What points should be taken into (10)consideration in designing a sample design?

Write a brief note on different types of analysis of data pointing out the (10)significance of each.

Examine the merits and limitations of the observation method in collecting (10)(a) material. Illustrate your answer with suitable examples.

"Processing of data implies editing, coding, classification and tabulation". (10)Describe in brief these four operations pointing out the significance of each in context of research study.

Distinguish between Research methods and Research methodology. (10)

What do you mean by research? Explain its significance in modern time. (10)