

U.S.N.

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

January 2024 Semester End Main Examinations**Programme: B.E.****Branch: Artificial Intelligence and Machine Learning****Course Code: 22AM7HSRMD****Course: Research Methodology****Semester: VII****Duration: 3 hrs.****Max Marks: 100**

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.			UNIT - I	CO	PO	Marks
	1	a)	Illustrate research process with the help of a flow chart.	CO1	PO2	8
		b)	Differentiate between research methods and methodology.	CO2	PO2	6
		c)	Discuss the techniques of defining a research problem for sales improvement in a company.	CO1	PO1	6
			UNIT - II			
	2	a)	Signify the importance of literature review.	CO2	PO2	6
		b)	Justify why good research design is necessary?	CO1	PO2	8
		c)	Analyze the need of factorial experimental design.	CO2	PO2	6
			OR			
	3	a)	With the help of a neat diagram discuss simple randomized experimental design.	CO1	PO2	6
		b)	Elaborate on the different categories of research design.	CO2	PO2	6
		c)	Discuss various important experimental research designs.	CO1	PO1	8
			UNIT - III			
	4	a)	Analyze the power of sample design for a medical research problem.	CO2	PO2	8
		b)	Apply scales for measuring mathematical properties for ordinal, nominal and ratio data.	CO1	PO1	6
		c)	Analyze the need of scaling procedures during research study.	CO2	PO2	6
			OR			
	5	a)	Distinguish various scaling techniques	CO2	PO2	8
		b)	Illustrate various measurement for qualitative research.	CO2	PO2	6
		c)	Provide your analysis with an example how different sources of errors might occur during survey	CO1	PO2	6

			UNIT - IV			
	6	a)	Discuss the different methods of collecting data for the research.	CO2	PO1	8
		b)	Discuss the merits and demerits of collecting research data through questionnaires.	CO2	PO1	6
		c)	Distinguish primary and secondary sources of data collection	CO2	PO2	6
			UNIT - V			
	7	a)	Discuss the techniques of research outcome interpretations.	CO3	PO1	6
		b)	Describe the steps involved in writing reports.	CO3	PO1	6
		c)	Discuss the layout of research report.	CO3	PO1	8

B.M.S.C.E. - ODD SEM 2023-24