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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.

UNIT - I			CO	PO	Marks
1	a)	Illustrate research process with the help of a flow chart.	<i>CO1</i>	<i>PO2</i>	8
	b)	Differentiate between research methods and methodology.	<i>CO2</i>	<i>PO2</i>	6
	c)	Discuss the techniques of defining a research problem for sales improvement in a company.	<i>CO1</i>	<i>PO1</i>	6
UNIT - II					
2	a)	Signify the importance of literature review.	<i>CO2</i>	<i>PO2</i>	6
	b)	Justify why good research design is necessary?	<i>CO1</i>	<i>PO2</i>	8
	c)	Analyze the need of factorial experimental design.	<i>CO2</i>	<i>PO2</i>	6
OR					
3	a)	With the help of a neat diagram discuss simple randomized experimental design.	<i>CO1</i>	<i>PO2</i>	6
	b)	Elaborate on the different categories of research design.	<i>CO2</i>	<i>PO2</i>	6
	c)	Discuss various important experimental research designs.	<i>CO1</i>	<i>PO1</i>	8
UNIT - III					
4	a)	Analyze the power of sample design for a medical research problem.	<i>CO2</i>	<i>PO2</i>	8
	b)	Apply scales for measuring mathematical properties for ordinal, nominal and ratio data.	<i>CO1</i>	<i>PO1</i>	6
	c)	Analyze the need of scaling procedures during research study.	<i>CO2</i>	<i>PO2</i>	6
OR					
5	a)	Distinguish various scaling techniques	<i>CO2</i>	<i>PO2</i>	8
	b)	Illustrate various measurement for qualitative research.	<i>CO2</i>	<i>PO2</i>	6
	c)	Provide your analysis with an example how different sources of errors might occur during survey	<i>CO1</i>	<i>PO2</i>	6

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

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