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

Autonomous Institute Affiliated to VTU

January / February 2025 Semester End Main Examinations

Programme: B.E. **Semester: V**
Branch: Artificial Intelligence and Machine Learning **Duration: 3 hrs.**
Course Code: 23AM5PEABI **Max Marks: 100**
Course: AI in Business Intelligence

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)	Briefly explain the Business-Pressures-Responses-Support Model with a block diagram.	CO1	PO1	**10**
	b)	Explore developments that have contributed to facilitate the growth of Decision Support and Analytics.	CO1	PO2	**10**
		OR			
2	a)	Define Business Intelligence (BI). Draw and explain the High-Level Architecture of BI.	CO1	PO1	**10**
	b)	How can Descriptive and Predictive Analytics help in pursuing Prescriptive Analytics? Justify.	CO1	PO2	**10**
		UNIT - II			
3	a)	Outline Herbert Simon's Four Phases of Decision Making and apply them to the context of improving a business portal to tackle competition and enhance user assignment.	CO2	PO2	**10**
	b)	Explain Decision Support System and its components with a suitable example.	CO2	PO1	**10**
		OR			
4	a)	Explain the concepts of certainty and uncertainty in decision-making and discuss the role of a risk management system in addressing uncertainties.	CO2	PO2	**10**
	b)	Analyze the foundational structure of Mathematical Models for decision support with a neat diagram.	CO2	PO1	**10**
		UNIT - III			
5	a)	Infer the characteristics of Data Warehousing with a diagram.	CO1	PO2	**10**
	b)	Compare and contrast OLAP and OLTP. Explain the major operations of OLAP.	CO1	PO1	**10**

			OR			
	6	a)	Elaborate the roles and significance of Extraction, Transformation, and Load (ETL) processes in data management. Provide real-world example to illustrate how organizations can optimize ETL processes for streamlined data integration and enhanced data-driven decision-making.	*CO2*	*PO1*	**10**
		b)	Compare different data warehouse with suitable example for each.	*CO2*	*PO1*	**10**
			UNIT - IV			
	7	a)	With a diagram, explain the Relationship among Data, Information and Knowledge.	*CO2*	*PO1*	**10**
		b)	Provide the key differences between individual decision-making and group decision-making with a suitable example.	*CO2*	*PO1*	**10**
			OR			
	8	a)	Depict and elaborate the Knowledge Management cycle with its components.	*CO2*	*PO2*	**10**
		b)	Analyze the key steps involved in the Extraction, Transformation, and Load (ETL) processes. Provide real-world examples of successful ETL optimization with its benefits.	*CO2*	*PO2*	**10**
			UNIT - V			
	9	a)	Briefly discuss the Location Based Analytics for organizations with a neat diagram.	*CO3*	*PO1*	**10**
		b)	Summarize the following i. Analytics application for Consumers ii. Recommendation engines	*CO3*	*PO1*	**10**
			OR			
	10	a)	Explain the role of Web 2.0 technologies in enabling analytics for online social networking platforms.	*CO3*	*PO1*	**10**
		b)	Discuss the critical legal, privacy, and ethical issues associated with analytics in today's data-driven landscape.	*CO3*	*PO1*	**10**

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