SNS College of Technology

[An Autonomous Institution]

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai

Accredited by NAAC-UGC with 'A++' Grade (Cycle III) &

Accredited by NBA (B.E CSE, EEE, ECE, Mech & B.Tech.IT)

COIMBATORE-641 035, TAMIL NADU

DEPARTMENT OF MANAGEMENT STUDIES

Academic Year	: 2023-24	Semester	: 02
Course Code	: 23BAT615		
Course Name	: Artificial Intelligence for Managers		
Unit	: I – Technology Overview and Fundamentals		

Questions [13 Marks]

1. Describe the evolution of AI and ML technologies and their impact on various industries over the past decade.
2. Explain the key factors organizations should consider when selecting tools and platforms for deploying AI and ML solutions.
3. Compare and contrast the features and capabilities of two prominent AI and ML platforms available in the market today.
4. Discuss the challenges organizations face in sourcing and acquiring relevant data for AI and ML applications and propose strategies to overcome these challenges.
5. Explore the ethical considerations surrounding data usage in AI and ML applications, particularly in terms of privacy, bias, and transparency.
6. Evaluate the role of cloud computing in facilitating the storage, processing, and analysis of large datasets for AI and ML applications.
7. Elaborate on the various techniques and best practices for data manipulation and preprocessing to ensure data quality and suitability for AI and ML tasks.
8. Assess the impact of data governance policies and regulations on organizations' data-related practices in the context of AI and ML deployments.
9. Discuss the statistical foundations underpinning common machine learning algorithms, such as regression, classification, and clustering.
10. Illustrate the concept of hypothesis testing and its relevance in evaluating the significance of findings derived from AI and ML models.

11. Investigate the role of probability theory in machine learning, including its applications in modeling uncertainty and making probabilistic predictions.
12. Analyze the importance of feature selection and extraction techniques in enhancing the performance and interpretability of machine learning models.
13. Examine the principles of data visualization and storytelling techniques used to communicate insights and findings derived from AI and ML analyses effectively.
14. Compare and contrast different data visualization tools and platforms available for creating interactive and engaging visualizations of AI and ML results.
15. Explore the role of storytelling in data visualization and its effectiveness in conveying complex information to diverse stakeholders.
16. Discuss the impact of human perception and cognition on the design and interpretation of data visualizations in AI and ML contexts.
17. Evaluate the effectiveness of different data visualization techniques, such as charts, graphs, and maps, in conveying specific types of information in AI and ML analyses.
18. Investigate the use of storytelling frameworks, such as the hero's journey or narrative arcs, in structuring data-driven narratives for AI and ML insights.
19. Assess the challenges and opportunities associated with integrating AI and ML technologies into existing organizational workflows and decision-making processes.
20. Examine the role of explainable AI (XAI) techniques in improving the transparency and interpretability of AI and ML models, particularly in high-stakes applications.
21. Discuss the potential biases and limitations inherent in AI and ML algorithms and propose strategies for mitigating these biases to ensure fair and equitable outcomes.
22. Explore the ethical implications of using AI and ML technologies to make decisions that impact individuals' lives, such as in healthcare, criminal justice, and finance.
23. Evaluate the socio-economic implications of widespread AI and ML adoption, including its effects on employment, inequality, and human well-being.
24. Investigate the role of interdisciplinary collaboration in advancing AI and ML research and development, particularly in addressing complex real-world challenges.
25. Reflect on the future directions of AI and ML technologies and their potential impact on society, economy, and the environment in the coming decades.