SNS College of Technology

(An Autonomous Institution)

Coimbatore - 35

DEPARTMENT OF MANAGEMENT STUDIES
23BAT615 – Artificial Intelligence for Managers
UNIT – III & Unboxing AI and its Applications

Staff Incharge: Ms.S.D.Shamini, AP/MBA

13 Mark Questions

1. A company wants to predict its future sales based on advertising expenditure. Explain the steps you would take to build a linear regression model to predict sales. Include data preprocessing, model training, and evaluation.

2. Describe how you would apply logistic regression to predict whether a customer will buy a product (binary outcome). Include how you would handle categorical variables and imbalanced datasets.

3. Outline the process of building a decision tree for a classification problem, such as determining whether an email is spam. Discuss how you would handle overfitting.

4. Explain how you would use a random forest to predict customer churn in a subscription-based business. Discuss feature importance and model interpretability.

5. Describe the steps involved in using the K-Nearest Neighbors algorithm to classify handwritten digits. Include data preprocessing, choosing the value of k, and evaluating model performance.

6. Explain the process of building a neural network to recognize images of handwritten digits. Discuss data preprocessing, network architecture design, training, and evaluation.

7. Describe how you would design and train a deep learning model to classify images of different animal species. Include steps for data preprocessing, model architecture, training, and evaluation.

8. You have been given a dataset of global temperatures over the last century. Describe how you would use visualization techniques to analyze trends and patterns in this dataset. Include specific tools and types of visualizations you would use.

9. Explain how you would build a system to automatically classify customer reviews as positive, negative, or neutral using NLP techniques. Include steps for text preprocessing, feature extraction, model training, and evaluation.

10. Describe how you would use text analytics to analyze a large corpus of customer feedback to identify common themes and sentiments. Discuss methods for preprocessing, topic modeling, and sentiment analysis.

11. Outline the steps required to build a sentiment analysis model for social media posts. Discuss preprocessing, feature extraction, model training, and evaluation.

12. Explain how you would perform social media analytics to assess the impact of a marketing campaign. Include steps for data collection, sentiment analysis, engagement metrics, and reporting.

13. Discuss the process of building and deploying a machine learning model to predict employee attrition in a large organization. Include steps for data collection, preprocessing, model selection, training, evaluation, and deployment.