

Q.1 Answer the following questions regarding Machine Learning models: (a) Compare and contrast supervised and unsupervised learning. Provide examples for each. (b) How does feature selection impact model performance? Justify with examples. (c) Explain the working of the Gradient Descent algorithm in neural networks. (d) Why is regularization important in machine learning? Compare L1 and L2 regularization. (e) Discuss the significance of explainability in AI models. Provide methods to improve explainability. [15]