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## School of Engineering

B.TECH Electronics and Communication Engineering in Artificial Intelligence and Machine  
Mid Term Examination - May 2024

Duration : 90 Minutes  
Max Marks : 50

### Sem VI - G2UD601T - Machine Learning

General Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

- 1) Explain overfitting. K2 (2)
- 2) Assess the role of the curse of dimensionality in machine learning K1 (3)
- 3) Explain about Gaussian distribution with its probability density function K2 (4)
- 4) Discuss about the Classification problem in machine learning techniques. K2 (6)
- 5) Recall the following terms used in Perceptron learning algorithm a) The learning rate (3) b) The bias Input K3 (6)
- 6) Summarize in detail of impact of noise in classification in reference to supervised learning. K3 (9)
- 7) Discuss Relu activation function with neat graph K4 (8)
- 8) Formulate over fitting, Training, Testing and validation sets in machine learning algorithm. K4 (12)

**OR**

Analyze the Spectral clustering matrix, and represent the graph laplacian matrix K4 (12)