

Atal Bihari Vajpayee Indian Institute of Information Technology & Management, Gwalior

IT007: Advanced Machine Learning

Minor Examination (Session 2024–25)

Maximum Time: 1.5 Hours

Max Marks: 25

Note: Attempt all questions. Support answers with suitable examples.

1. Explain the difference between supervised, unsupervised, and reinforcement learning. (5 Marks)
2. What is cross-validation? Explain k-fold cross-validation with an example. (5 Marks)
3. Define ensemble learning. Explain stacking with a small example. (5 Marks)
4. Discuss vanishing gradient problem in deep networks. Suggest two methods to mitigate it. (5 Marks)
5. Write short notes on: (a) Feature scaling methods (b) Regularization in deep learning (5 Marks)