 **Assignment-2**

**ECHELON INSTITUTE OF TECHNOLOGY**

**Department of Computer Application**

**Machine Learning II (BCA-DS-312)**

**Course: BCA DS Semester: 6th**

**Date of Issue: 27 April, 2025 Date of Submission: 5 May, 2025 Course Unit included: 3rd & 4th Assignment Number: 2nd**

**Session: 2024-25 Max. Marks: 20**

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**CO-3** Summarize the structure and working of deep learning and neural network architectures.

**CO-4:** Apply reinforcement learning strategies, including policy search and adaptive dynamic programming, for decision-making applications.

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| **Q.N.** | **Question** | **CO** | **Revised Bloom’s Taxonomy Level** | **Marks** |
| **Q.1** | What is Feature Representation Learning, and why is it important in Deep Learning? | CO-3 | RBTL-1 | 4 |
| **Q.2** | Explain the concept of Policy Search and its role in Reinforcement Learning. | CO-4 | RBTL-2 | 4 |
| **Q.3** | Discuss the structure and learning process of a Multilayer Neural Network. | CO-3 | RBTL-1 | 4 |
| **Q.4** | Discuss the role of Generalization in Reinforcement Learning and why it is important. | CO-4 | RBTL-1 | 4 |
| **Q.5** | Describe the key elements of Reinforcement Learning with an example. | CO-4 | RBTL-2 | 4 |