CT-262 Introduction to Artificial Intelligence

Introduction: Introduction to Artificial Intelligence (AI), Branches and applications of AI. Development stages of intelligent machines, searching techniques.

Machine Learning: Introduction to Machine Learning, Training and test data, Object features, Object detection (How to develop an object detector).

Knowledge Representation: Knowledge and its components, Levels and types of knowledge. Knowledge representation techniques; Frame, Scripts, and Semantic Networks. Implementation of knowledge representation using PROLOG.

Expert System: Fundamentals of Expert System, Components of Expert System, Development cycle of Expert System. Design stages and Prototype of Expert system.

Natural Language Processing: Basic text processing, information extraction, Natural Language understanding problems, Natural language understanding techniques.

Applications: Game playing – Heuristic Search Algorithm and Turing Test.