

**Chapter 1 : Intro. to Artificial Intelligence(AI) and Soft Computing****1-1 to 1-33****Syllabus :**

Introduction and Definition of Artificial Intelligence. Intelligent Agents : Agents and Environments, Rationality, Nature of Environment, Structure of Agent, types of Agent. Soft Computing: Introduction of soft computing, soft computing vs. hard computing, various types of soft computing techniques.

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Problem Solving Agent, Formulating Problems, Example Problems Uninformed Search Methods : Depth Limited Search, Depth First Iterative Deepening (DFID), Informed Search Method : A* Search Optimization Problems : Hill climbing Search, Simulated annealing, Genetic algorithm

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**Chapter 3 : Knowledge, Reasoning
and Planning** **3-1 to 3-60**

Syllabus :

Knowledge based agents, First order logic: syntax and Semantic, Knowledge Engineering in FOL Inference in FOL : Unification, Forward Chaining, Backward Chaining and Resolution, Planning Agent, Types of Planning: Partial Order, Hierarchical Order, Conditional Order

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