ARTIFICIAL INTELLIGENCE

Teaching Scheme
Lecturers: 4 Hrs / week
Practical: 2 Hrs / week

Examination Scheme
Theory: 100 marks
Term work: 25 marks

Unit 1. (10 Hrs, 20 Marks)
Introduction to AI: Intelligent agents, Perception, Natural language processing, Problem, Solving agents,
Searching for solutions: Uniformed search strategies, informed search strategies.

Unit 2. (10 Hrs, 20 Marks)
Knowledge and reasoning: Adversarial search, Optimal and imperfect decisions, Alpha, Beta pruning.
Logical agents: Propositional logic, First order logic, Syntax and semantics, Using first order logic, Inference in first order logic.

Unit 3. (10 Hrs, 20 Marks)
Uncertainty, Acting under uncertainty, Basic probability notation, Axioms of probability, Baye’s rule, Probabilistic reasoning, and making simple decisions.

Unit 4. (10 Hrs, 20 Marks)
Planning: Planning problem, Partial order planning, Planning and acting in non-deterministic domains.

Unit 5. (10 Hrs, 20 Marks)
Expert systems: Definition, Features of an expert system, Organization, Characteristics, Prospector, Knowledge Representation in expert systems, Expert system tools, MYCIN, EMYCIN.

References.

List of Experiments:
Term work shall consist of at least eight experiments based on above topics