Hall Ticket Number:									

## IV/IV B.Tech (Regular/Supplementary) DEGREE EXAMINATION

November, 2019 Seventh Semester **Information Technology** 

Artificial Intelligence

Time: Three Hours Maximum: 60 Marks (1X12 = 12 Marks)Answer Question No.1 compulsorily. Answer ONE question from each unit. (4X12=48 Marks) Answer all questions (1X12=12 Marks) a) Define State Space List out Uniformed Search Strategies. b) What are the Problem Characteristics of Artificial Intelligence? c) Distinguish between Fact and Predicate. d) What is Declarative Knowledge e) What is Forward Reasoning? f) Define Reactive System. g) What is Conceptual Dependency? h) What are the Various Planning Systems? i) What is Explanation Based Learning? j) Name the Programming Methods Supported by Expert System Tools? k) What is Rote Learning? 1) **UNIT I** a) Describe Problem characteristics with examples? 6M Briefly explain the travelling salesman problem and find a solution to it? b) 6M (OR) Write an algorithm for Mean End Analysis? 3 a) 6M Trace the constraint satisfaction procedure solving the b) 6M **CROSS** +ROADS \_\_\_\_\_ **DANGER UNIT II** Discuss the role of reasoning in AI. How predicate logic is used in Al to represent knowledge? a) 6M Define Resolution. Explain with suitable example. b) 6M How knowledge can be represented using Procedural knowledge with suitable example? a) 6M b) Briefly explain Control Knowledge? 6M UNIT III List Semantic Networks. Explain features of Semantic net. a) 6M Describe major components of a Restaurant Script. b) 6M 7 a) Discuss about the Nonlinear Planning using Constraint Posting. 6M Describe hierarchical planning methods with relevant examples? b) 6M UNIT IV Explain in detail about explanation based learning Mechanism. 6M a) Explain various types of learnings in problem solving. 6M b) (OR) a) Explain with neat diagram the architecture of expert system and mention its features. 6M Explain about Knowledge acquisition? b) 6M

