

**ARTIFICIAL INTELLIGENCE**

( Computer Science and Engineering )

Time: 3 Hours

Max. Marks: 70

*Answer any FIVE Questions*

*All Questions carry Equal Marks*

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1. What is an AI technique? Discuss the problem of an AI technique with help of examples.
2. (a) Define the terms: State space, search tree, search node, branching factor.  
(b) Explain why problem formulation must follow goal formulation.
3. (a) Explain Davis-Putnam algorithm for backtracking.  
(b) Discuss completeness of resolution in detail.
4. Briefly illustrate the use of first order logic for simple representations.
5. Explain the solution for inferential frame problem.
6. Explain maximal probability using examples.
7. (a) Explain with examples how the background knowledge is useful for faster learning than from a pure inductive program.  
(b) Explain knowledge base inductive learning.
8. Explain sectional view of a fuzzy room cooler.