

Code No: 157EG

**R18**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech IV Year I Semester Examinations, February/March - 2022**

**ARTIFICIAL INTELLIGENCE**

**(Common to CE, ECE)**

**Time: 3 Hours**

**Max. Marks: 75**

**Answer any Five Questions  
All Questions Carry Equal Marks**

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- 1.a) What is problem solving agent and explain components of it.  
b) Explain breadth first search algorithm. [8+7]
- 2.a) Write about Uniform cost search technique.  
b) Explain backtracking in detail. [7+8]
- 3.a) Elaborate Alpha Beta pruning.  
b) Explain components of game search algorithm. [7+8]
- 4.a) Explain different quantifier.  
b) Discuss about forward chaining with example. [8+7]
- 5.a) Explain semantics of first order logic in knowledge representation.  
b) Write about backward chaining in first order logic. [7+8]
- 6.a) Explain about ontology for an event.  
b) Write about resolution in first order logic. [8+7]
- 7.a) What is partial order planning? Explain with examples.  
b) Explain conditional planning agent. [7+8]
- 8.a) Explain joint probability distribution with example.  
b) Explain Baye's Rule and its use. [8+7]

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