

Write any ten applications of artificial intelligence?

Write a short note on history of AI?

What is a production system in AI? Explain the different features of production system?

Explain the different types of production system in AI?

Explain the relationship between problem and production system with examples?

Explain the different characteristics of a problem in Artificial Intelligence?

What is PEAS in AI? Explain different types of environments existing in any AI applications?

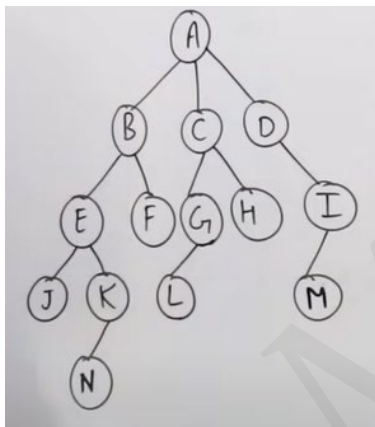
What do you mean by rational agent? What different types of agents are available in AI?

Explain the breadth first search algorithm? What are its time and space complexity? Also write its advantage and disadvantages?

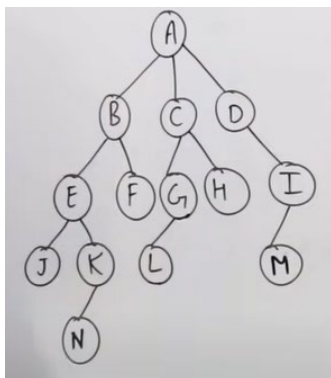
Explain the depth first search algorithm? What are its time and space complexity? Also write its advantage and disadvantages?

Explain the bidirectional search and iterative deepening search?

Explain the steps, how queue is used in solving the given tree with breadth first search?



Explain the steps, how stack is used in solving the given tree with depth first search?



What is difference between uninformed search and informed search? Explain which one is better with the help of an example?

Explain generate and test algorithm?

Explain the limitation of hill climbing approach of search? Why it is suitable for online search?

Explain the simple hill algorithm? What are it's advantages and dis advantages?

Explain the steepest ascent hill algorithm? What are it's advantages and dis advantages?

Explain the stochastic hill algorithm? What are it's advantages and dis advantages?

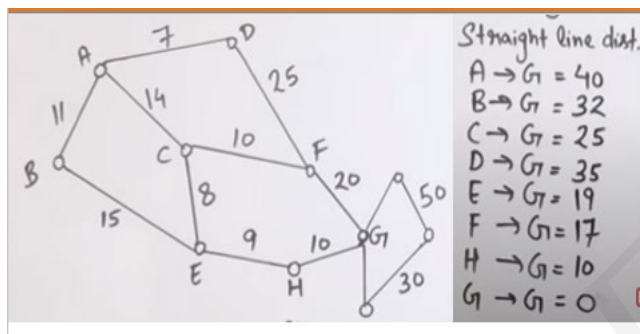
Explain the simulated annealing algorithm? How it is better than hill climbing approach?

What is limitation of best first search and how it is removed by A* search algorithm?

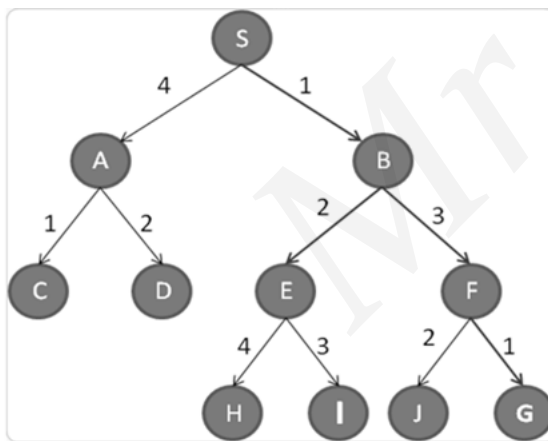
Explain the underestimation and over estimation of cost in A* algorithm with an example?

Explain the constraint satisfaction problem algorithm with an example?

Solve the following question step by step using Best first search. Assume the start node is 'A'.



Solve the following question step by step using Best first search. Assume the start node is 'S'.



S: Initial state, G: goal.

Table shows the heuristic estimates:

node	$h(n)$	node	$h(n)$	node	$h(n)$
A	11	E	4	I, J	3
B	5	F	2	S	15
C, D	9	H	7	G	0

Solve the following question by A* search algorithm. Assume the start node is 'A'.

