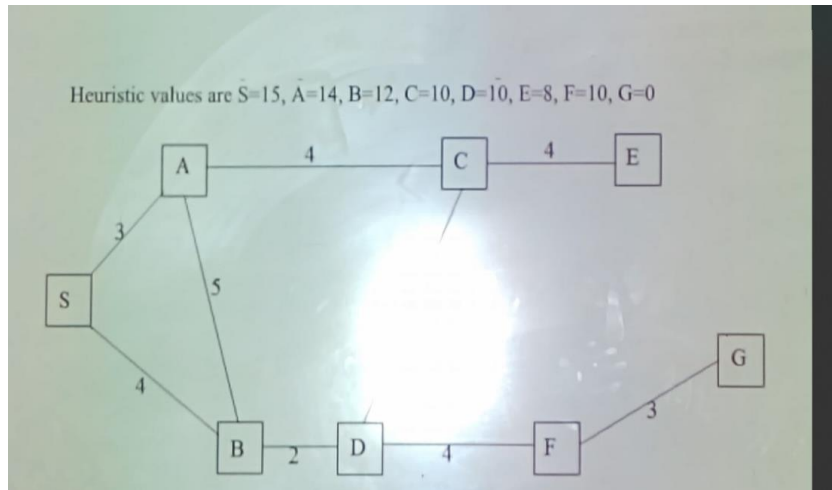
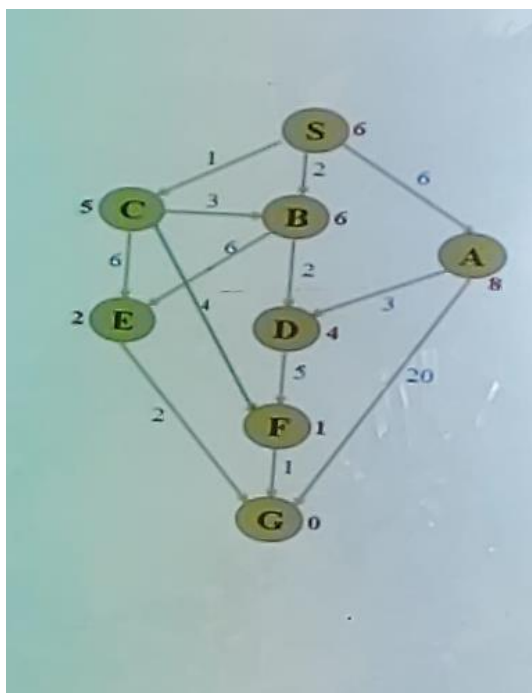


1. Define AI, illustrate application of applications of AI explain current trends in AI?
2. Explain types of AI, classify approaches of AI?
3. What are the basic building blocks of learning agents explain each of them with a neat diagram?
4. Examine hill climbing Search algorithm with diagram also define local maxima ,plateau ,ridge?
5. Apply A star search algorithm on following graph assume that initial state is S, Final state is G find optimal path from S to G also report the solution cost?



6. What are environment Different types of environments applicable to AI Agents?
7. Explain with example various uninformed search technique explain any three uninformed search technique ?
8. Explain genetic algorithm with diagram with distinguish the following terms chromosomes of fitness function?
9. Consider the search problem below with start state as S and end state G in transaction cost and heuristic values are given below what is the final cost using a star search algorithm to reach from S to G?



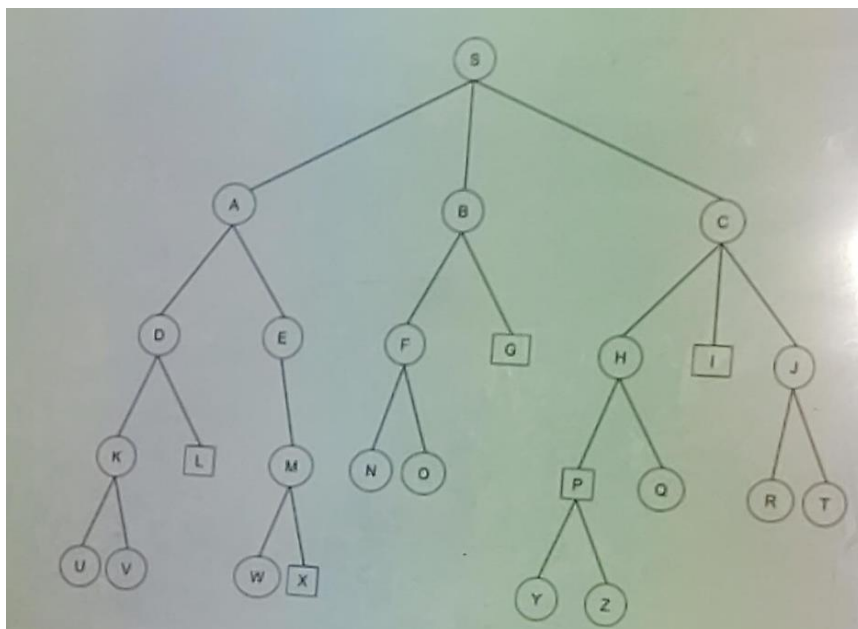
10. A) List the order in which DFS algorithm explores the graph till the termination right to left also write the path found by the algorithm?

b) list of order in which BFS algorithm explore the graph searching from left to right also write the path found by the algorithm ?

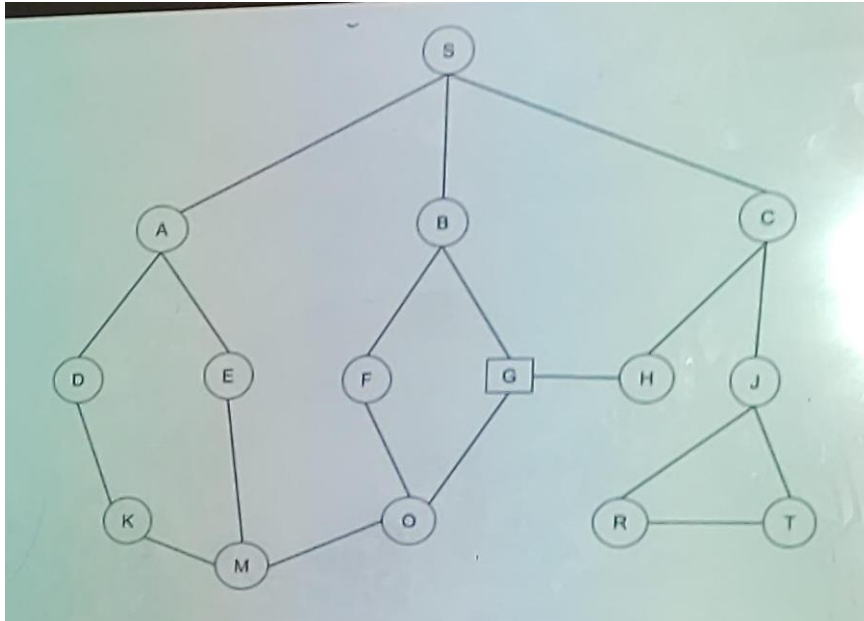
c) list the order in which DFID explore the graph searching from left to right also write the path found by the algorithm ?

d) list the order in which DLS algorithm explore the graph searching from left to right assume that the predetermined limit is 1 also write the path found by the algorithm if not why?

e) List the order in which DFS algorithm explores the graph till the termination left to right also write the path found by the algorithm?



11. A) list the order in which DFS algorithm inspect the nodes in fig whenever there is confusion the algorithm choose left ?
- b) what is the path found by the algorithm in the previous question?
- c) list the order in which BFS inspects the node?
- d) what is the path found by the algorithm in the previous question?
- e) List order in which DFID inspects the node ?



12. Explain working of simulated annealing explain how drawbacks of hill climbing algorithm are overcome in this?