

(a) D/W Informed and uninformed Search

Basic of comparison.	Informed	Uninformed
Basic	Use Knowledge to find Step to the Solution	No use of Knowledge
Efficiency	High efficient as Consume Less time and Cost	Efficiency is mandatory.
Cost	low	Comparatively high
performance	find Solution more quickly	Speed is slower than informed Search
Algorithm	Heuristic, left first and breadth first Search and A* Search	Depth - first Search, breadth Search and lower Cost first Search

D/w BFS and DFS

BFS

1) BFS stand for Breadth first Search

2) BFS (Breadth first Search) uses queue data structure for finding the shortest path

3) BFS can be used to find single source shortest path in an unweighted graph, because in BFS we reach a vertex with minimum edge from source vertex

4) BFS is more suitable for searching vertex which are closer to the given source

DFS

DFS stand for Depth first Search

DFS (Depth first Search) uses stack data structure

In DFS, we might traverse through more edge to reach destination vertex from a source

DFS is more suitable when the source solution away from source

(C) Discuss Some of the potential of using hill climbing search.

Ans

problem in hill climbing:-

A major problem of hill climbing strategies is their tendency to become stuck at foothills, a plateau or a ridge. If the algorithm reaches any of the above mentioned states, then the algorithm fails to find a solution.

(i) Foothill or local maxima is a state that is better than all its neighbors but is not better. At a local maximum, each move appears to make things worse.

(ii) A plateau is a flat area of the search space in which a whole set of space in which a whole set of neighbors have the same value.

(iii) A ridge is a special kind of local maximum. It is an area of the search space that is that is higher than its surrounding, area and itself has a slope.

(.) A plateau is a flat area of the search space in which a whole set of neighbouring states are on plateau. It is not possible to determine the best direction in which to proceed.

(.) A ridge is a special kind of local maximum. It is an area of the search space.

(.) It is an area of the search space that has higher than surrounding area.

Q Define AD^* : Explain with an example.

Ans When a problem can be divided into a set of subproblems where each is solved separately and a combination of them will be a solution to the decomposition of the problem or problem detection generates.

One can have point to any number of success nodes all the nodes be solved so that the will in to many indicating several possible solution have the graph is known as AND-or graph