**GRAPHS**

1. If vertices of a graph are labelled from A to F, draw the pictorial form of graph from the adjacency matrix given below:

A number of black numbers

AI-generated content may be incorrect.

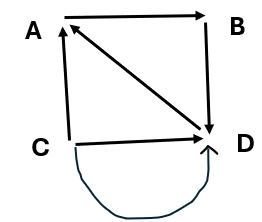
And also represent the same graph using adjacency list.

1. Explain the graph traversal methods with suitable examples.
2. What are the applications of graphs.
3. What are connected components of graph? Is there any method to find out all the connected components of graph? Explain.
4. What are the different ways to represent a Graph? Explain them?
5. What is a graph? Explain the properties of graphs.
6. Distinguish between Breadth First Search (BFS) and Depth First Search (DFS) in the contect of graphs.
7. Explain about Breadth First Search with an example.
8. Explain Depth First Search and Breadth First Search algorithms in detail.
9. Define connected components of a Graph. For the given graph, mention the adjacency list.

A diagram of a network

AI-generated content may be incorrect.

1. Write the BFS algorithm and traverse it starting from the vertex v6 showing various stages. How the connected components of a graph can be determined?
2. Explain Linked representation of graphs.
3. Explain the Linked adjacency list representation of a graph.
4. Explain Adjacency Matrix representation of graphs.
5. Explain the construction of Graph using Adjacency List?
6. Describe given two types of graphs: Directed and undirected graph.
7. For the following directed graph:
8. Give adjacency matrix representation.
9. Give adjacency list representation.



1. Give any two applications of Graph.
2. Show the result of inserting the keys 2,3,5,7,11,13,15,6,4 into an initially empty extendible hashing data structure with M=3.
3. what are the advantages and disadvantages of various collision resolution strategies?
4. Given the input { 4371, 1323, 6173, 4199, 4344, 9679, 1989 } and a hash function of h(X)=X (mod 10) show the resulting:

a. Separate Chaining hash table

b. Open addressing hash table using linear probing

1. Discuss the common collision resolution strategies used in closed hashing system.
2. What is hashing.explain about different hash functions.
3. What is static hashing and give examples for collision resolution techniques.