

SECTION - 1

Q1

Ans

A In graph, a graph representation is a technique to store graph into the memory of computer.

To represent a graph, we just need the set of vertices, and for each vertex the neighbors of the vertex (vertices which is directly connected to it by an edge). If it is a weighted graph, then the weight will be associated with each edge.

These are different ways to optimally represent a graph, depending on the density of its edges, type of operations to be performed and case of use.

1. Adjacency Matrix

2. Incidence Matrix

B Euler Paths and Circuits:

An "Euler path" in a graph or multigraph, is a walk through the graph which uses every edge exactly once. An "Euler circuit" is an Euler path which starts and stops at the same vertex. Our goal is to find a quick way to check whether a graph (or multigraph) has an Euler path or circuit.

1. Which of the graphs below have Euler paths? which have Euler circuits?

