Seat /ID	Discrete Structure	Section: SE2A
Date : 2nd May	Quiz-3	Time :25 min

Max.Marks:5+3+5+7=20

Problem-1

In the graph below, determine whether the following walks are paths, closed walks, circuits, simple circuits, or just walks.

a. $v_1e_2v_2e_3v_3e_4v_4e_5v_2e_2v_1e_1v_0$

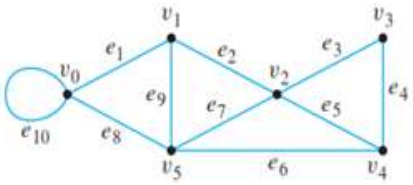
b. $v_2v_3v_4v_5v_2$

c. $v_4v_2v_3v_4v_5v_2v_4$

d. $v_2v_1v_5v_2v_3v_4v_2$

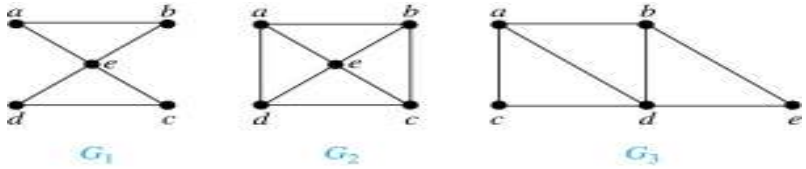
e. $v_0v_5v_2v_3v_4v_2v_1$

f. $v_5v_4v_2v_1$



Problem-2

Check whether the graphs have Euler path, Euler circuit, Hamilton path or Hamilton circuit ,if yes find such a path

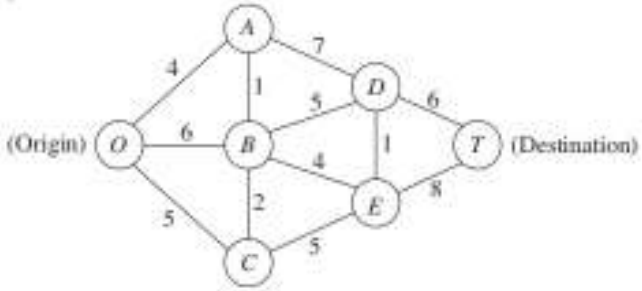


Problem-3

Determine given two graphs are isomorphic or not ,if yes then write mapping and show adjacency matrices of both are same .

Problem-4

Use Dijkstra's algorithm to find the shortest path through each of the following networks, where the numbers represent actual distances between the corresponding nodes.show all steps in tabular form



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