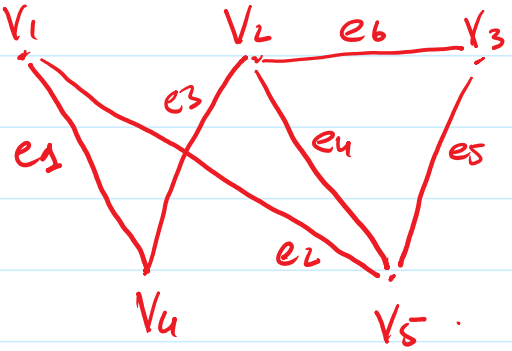
lecture 24:- GRAPH REPRESENTATION.

1- ADJACENCY LIST — Directed. / Undirected.

2- Adjacency Matrix.

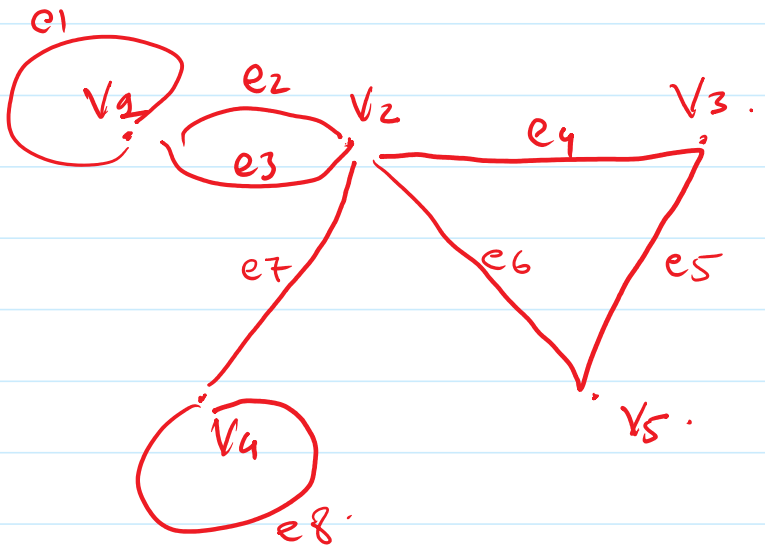
3- Incident Matrix.
Rows: |V|
Columns: |E|.

Ex6 :- 552



	e_1	e_2	e_3	e_4	e_5	e_6
V_1	1	1	0	0	0	0
V_2	0	0	1	1	0	1
V_3	0	0	0	0	1	1
V_4	1	0	1	0	0	0
V_5	0	1	0	1	1	0

Ex7 553.



ISOMORPHISM. $G_1 = (V_1, E_1)$ $G_2 = (V_2, E_2)$.

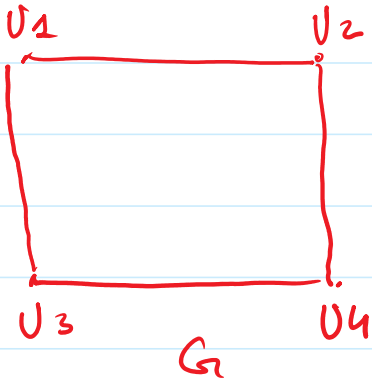
are Isomorphic.

if $\exists$ a f^n which one-to-one & onto.

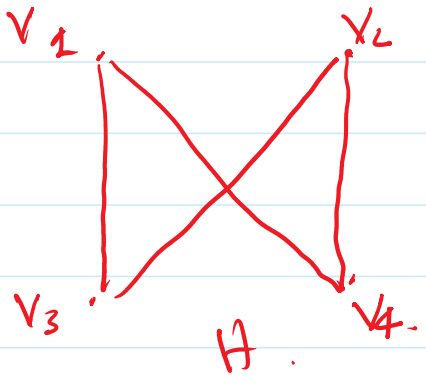
with properties.

1. if u & v are adjacent in G_1.

then f(u) and f(v) are adjacent in G_2.



G



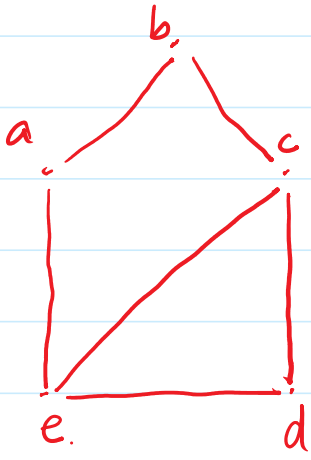
H.

(U_1, U_2) (U_2, U_3)
(U_2, U_4) (U_4, U_4).

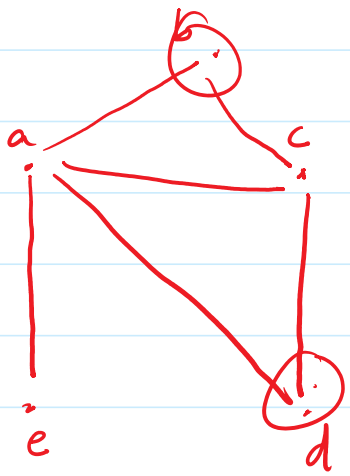
$f(u_1) = V_1$
$f(U_2) = V_4$
$f(U_3) = V_3$
$f(U_4) = V_2$.

$f(u_2), f(U_2)$
$f(U_2), f(U_3)$.
V_1, V_3.

Ex9 :-
554



G

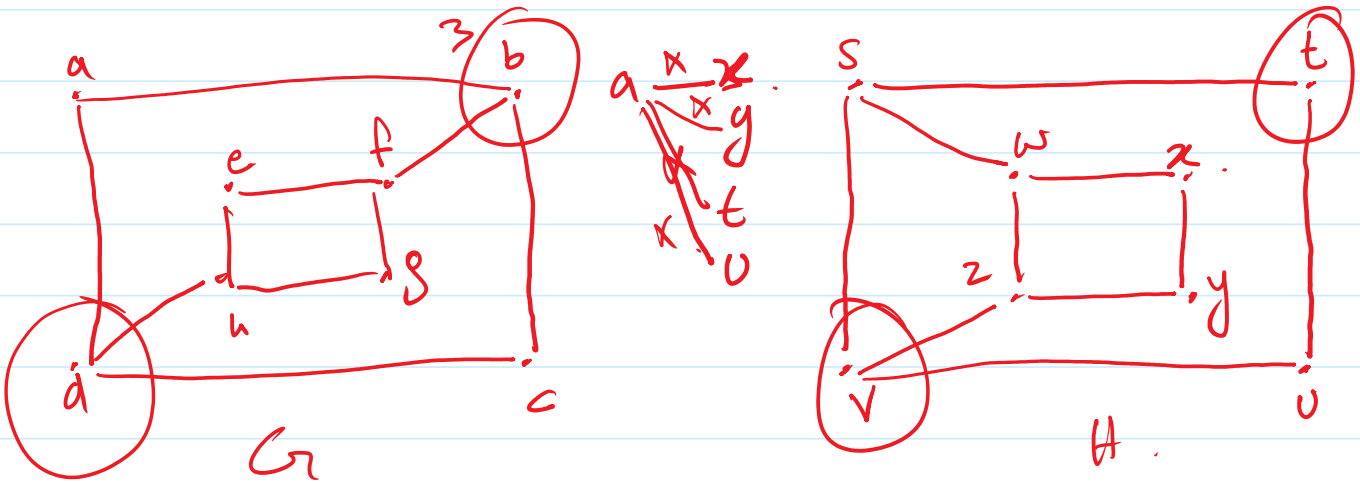


H.

G H.

G H.

			G	H
1).	Vertices	Equality	5	5
2)	Edges	"	6	6
3)	Degrees		deg 2 = 3	✗ deg 2 = 2



			G	H.
1).	Vertices	Equality	8	8
2)	Edges	"	10	10
3)	Degrees		deg 2 = 4 deg 3 = 4	deg 2 = 4 deg 3 = 4.

4- Adjacent Regree.
5- Simple Circuits. length (n).
6- Cut Edges } later.
7- Cut Vertices. }
8- fn. (one-to-one) (onto).
9- Incident.