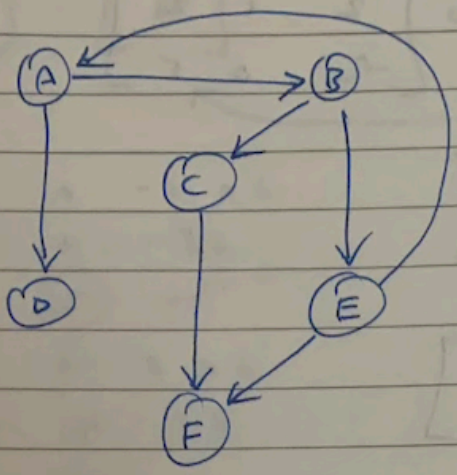
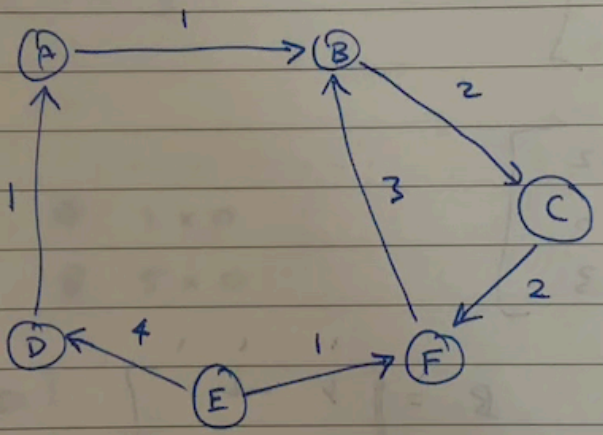
CS Fundamentals – Graphs

1. a) E = [AB, AD, BC, BE, CF, EA, EF]



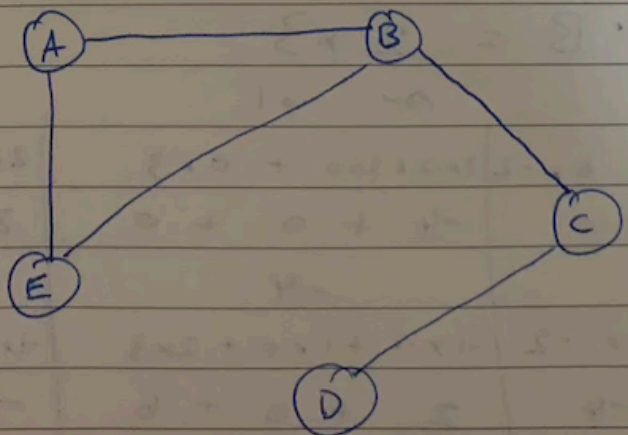
directed
unweighted

b) E = [1AB, 1DA, 2BC, 3FB, 2CF, 4ED, 1EF]



directed
weighted.

c) E = [AB, AE, BA, BC, BE, CB, CD, DC, EA, EB]



undirected
unweighted.

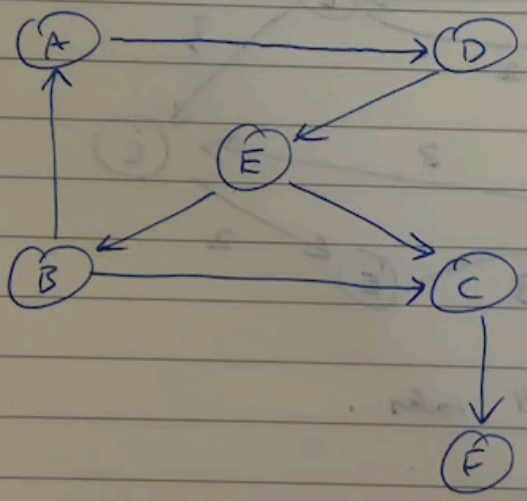
CS Fundamentals - Graphs.

2. a) M =

Destination.

Origin	A	B	C	D	E	F
A	0	0	0	1	0	0
B	1	0	1	0	0	0
C	0	0	0	0	0	1
D	0	0	0	0	1	0
E	0	1	1	0	0	0
F	0	0	0	0	0	0

directed / unweighted

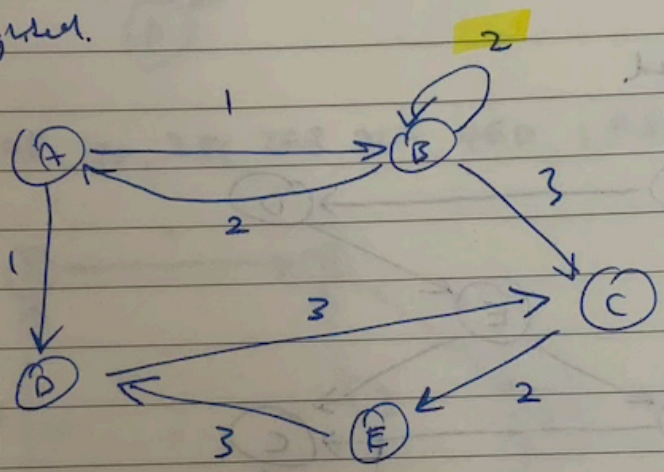


CS Fundamentals - Graphs.

25.) M=

Org \ Dest.	A	B	C	D	E
A	0	1	0	1	0
B	2	2	3	0	0
C	0	0	0	0	2
D	0	0	3	0	0
E	0	0	0	3	0

directed / weighted.



c) shortest path across all nodes.

~~A~~ B A D C E ~~A~~

2 1 3 2

= ~~8~~.