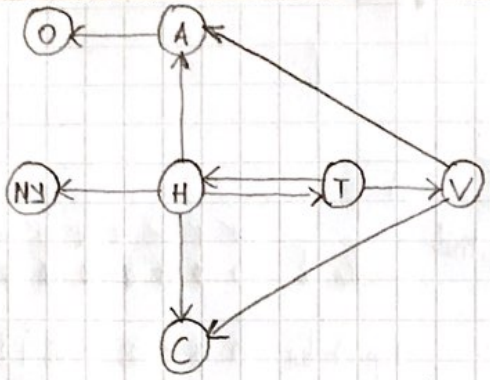
1)



V(StateGraph) = {Oregon, Alaska, Texas, Hawaii, Vermont, New York, California}

E(StateGraph) = {(Alaska, Oregon), (Hawaii, Alaska), (Hawaii, Texas), (Texas, Hawaii), (Hawaii, California), (Hawaii, New York), (Texas, Vermont), (Vermont, California), (Vermont, Alaska)}

2) a) No

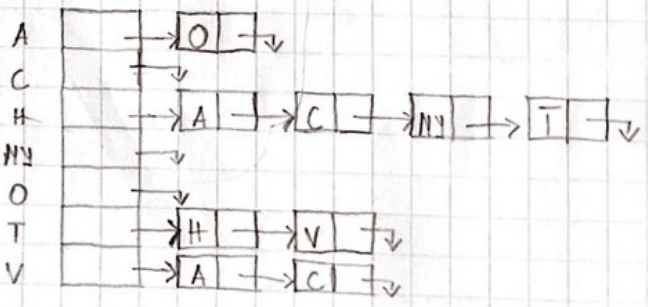
b) Yes

c) Texas

3)

A
C
H
NY
O
T
V

	0	1	2	3	4	5	6
0	0	0	0	0	1	0	0
1	0	0	0	0	0	0	0
2	1	1	0	1	0	1	0
3	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0
5	0	0	1	0	0	0	1
6	1	1	0	0	0	0	0

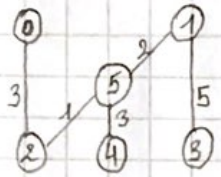


4) a) C: E, G, A, D, F, C, B

b) A: F, C, D, A, B, E, G

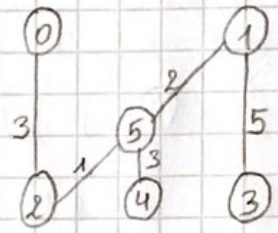
5) Atlanta - Washington (600)
Atlanta - Houston (800)
Atlanta - Denver (2680)
Atlanta - Dallas (1900)
Atlanta - Chicago (2800)
Atlanta - Austin (2100)

6)



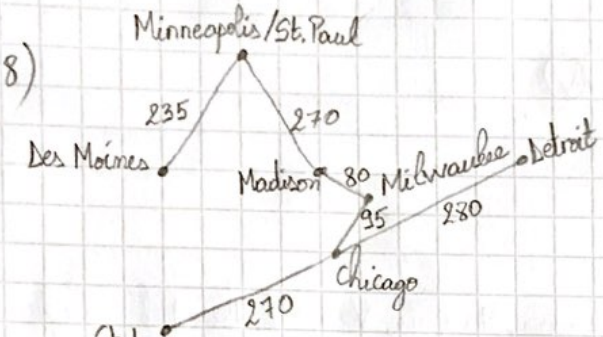
- add 0 to MST
- Consider edge 3, 7 and choose the smallest
- 3 is smaller, add 2 to MST
- Consider edge 1, 8 and choose the smallest
- 1 is smaller, add 5 to MST
- Consider edge 2, 5, 7 and choose the smallest
- 2 is smaller, add 1 to MST
- Consider edge 7, 5 and choose the smallest
- 5 is smaller, add 3 to MST
- Consider edge 6, 3 and choose the smallest
- 3 is smaller, add 4 to MST

7)



2 - 5 (1)
1 - 5 (2)
0 - 2 (3)
4 - 5 (3)
1 - 3 (5)
~~3 - 4 (6)~~
~~0 - 1 (7)~~
~~2 - 4 (8)~~

8)



9)

	0	1	2	3	4	5	6	7	8	9
predCount	0	0	0	0	0	0	0	0	0	0

Top. Order 0 7 1 2 5 6 4 8 3 9

queue 0 7 1 2 5 6 4 8 3 9

10)

	S	D.M	P1	P2	C.O	A	HLL	O.S	T.C	S.S	C	E
	0	1	2	3	4	5	6	7	8	9	10	11
predCount	0	0	0	0	0	0	0	0	0	0	0	0

Top. Order S D.M P1 P2 C.O A HLL O.S T.C C S.S E

queue S D.M P1 P2 C.O A HLL O.S T.C C S.S E

S: Start
D.M: Discrete Mathematics
P1: Programming 1
P2: Programming 2
C.O: Computer Organization
A: Algorithms
HLL: High Level Languages
O.S: Operating Systems
T.C: Theory of Computation
C: Compilers
S.S: Senior Seminar
E: End