* Each node has this table and knows which vertex to send to next to get to desired node

2. a)

Iteration	N	H_{BA}; D_{BA}	H_{BC}; D_{BC}	H_{BD}; D_{BD}	H_{BE}; D_{BE}	H_{BF}; D_{BF}
Initial	{B}	A; 4	C; ∞	D; 1	E; 2	F; ∞
1	{B, D}	A; 4	D; 3	D; 1 ✓	E; 2	F; ∞
2	{B, D, E}	A; 4	D; 3	D; 1 ✓	E; 2 ✓	E; 7
3	{B, D, E, C}	A; 4	D; 3 ✓	D; 1 ✓	E; 2 ✓	D; 5
4	{B, D, E, C, A}	A; 4 ✓	D; 3 ✓	D; 1 ✓	E; 2 ✓	D; 5
5	{B, D, E, C, A, F}	A; 4 ✓	D; 3 ✓	D; 1 ✓	E; 2 ✓	D; 5 ✓

b)

At Node B:

dest j	H_B;	D_{Bj}	C_{Bj}
A	A	4	4
B	B	0	0
C	D	3	∞
D	D	1	1
E	E	2	2
F	D	5	∞

2.

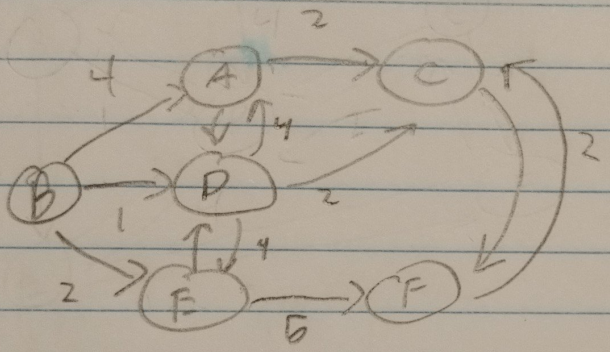
a)

Iteration	A	C	D	E	F
Initial	(-, ∞)	(-, ∞)	(-, ∞)	(-, ∞)	(-, ∞)
1	(B, 4)	(-, ∞)	(B, 1)	(B, 2)	(-, ∞)
2	(B, 4)	(D, 3)	(B, 1)	(B, 2)	(E, 7)
3	(B, 4)	(E, 3)	(B, 1)	(B, 2)	(C, 5)

Destination Node B

2nd iteration C can go through A or E
2nd, F can go through E only

3rd iteration:
C can go through F and F can go through C
C = 3 + 2 < 7 ⇒ F will take C



i) At Node A

dest j	H_{Aj}	D_{Aj}	C_{Aj}
A	A	0	0
B	B	4	4
C	C	2	2
D	D	4	4
E	B	6	∞
F	C	2	∞

distance vector

ii) At Node D

distance vector

dest j	H_{Dj}	D_{Dj}	C_{Dj}
A	A	4	4
B	B	1	1
C	C	2	2
D	D	0	0
E	B	3	4
F	C	4	∞

ii) At Node E

dest j	D_{Ej}
A	6
B	2
C	5
D	3
E	0
F	5