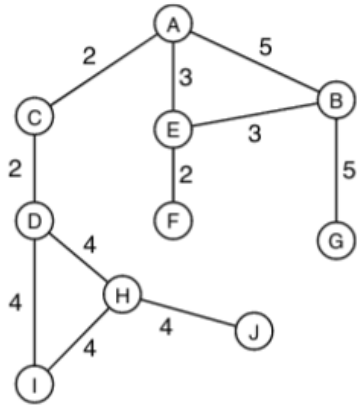
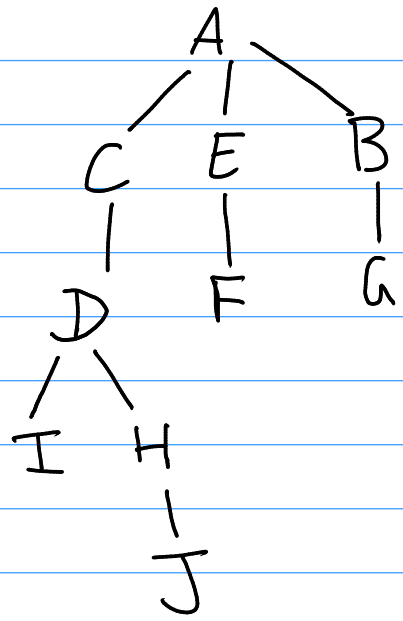
1)



ii)

1. A(0)
2. C(2), E(3), B(5)
3. E(3), D(4), B(5)
4. D(4), B(5), F(5), ~~B(6)~~
5. B(5), F(5), H(8), I(8)
6. F(5), H(8), I(8), G(10)
7. H(8), I(8), G(10)
8. I(8), G(10), ~~I(12)~~, J(12)
9. G(10), ~~H(12)~~, J(12)
10. J(12) solution found

i)



iii) ACEDBFHIGJ 9 nodes expanded.

iv) Route: ACDHJ Cost: 12

3) a)

	Frontier	Closed
1.	A(10)	
2.	E(5), B(6), C(8)	A
3.	F(3), B(6), C(8), <Pruned AEB>	AE
4.	B(6), C(8)	AEF
5.	G(1), C(8)	AEFB
6.	C(8)	AEFBG
7.	D(5)	AEFBGC
8.	H(3), I(4)	AEFBGCD
9.	J(0), I(4)	AEFBGCDH
10.	Solution found @ J. Route A C D H J cost 12.	

b) Frontier | Closed

1. A(10)
2. E(8), C(10), B(11) | A
3. F(8), C(10), B(11), <pruned AEB(12)> | AE
4. C(10), B(11) | AEF
5. D(9), B(11) | AEFC
6. B(11), H(11), I(12) | AEFCD
7. H(11), G(11), I(12) | AEFCDB
8. G(11), I(12), J(12) | AEFCDBH
9. I(12), J(12) | AEFCDBHG
10. J(12), <pruned ACDIH(15)> | AEFCDBHGI
11. Solution found @ J.
    Path: A C D H J cost: 12

4) It is not — h_2 is not admissable since
$MinCost(D \rightarrow J) = 8 < h(D) = 10$.

5) H_2 is best, since it is guaranteed to dominate all $h_1 \cdots h_n$.
H_1, H_2 & H_3 are admissable.