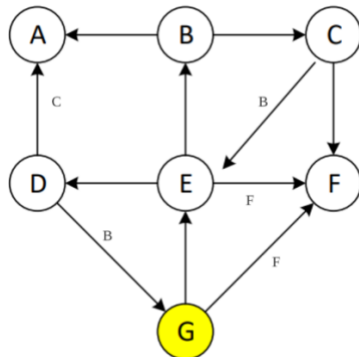


**Problem 1**



G->E->B->A->

Back track to B

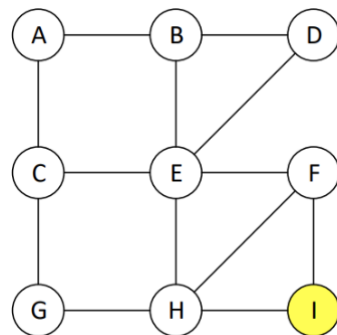
B->C->F

Back track: F->C->B->E

E->D

Finished

**Problem 2**



One edge away H,F

Two edge away G,E

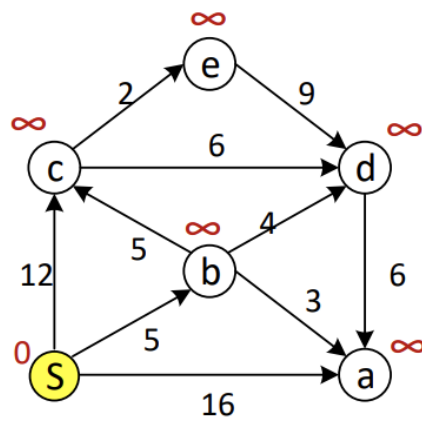
Three edge away B,C,D

Four edge away A

Choose them in the alphabetical order

I->F->H->E->G->B->C->D->A

### Problem 3(1)



S → b; S → a; S → c

dis[S] = 0; dis[c] = 12; dis[b] = 5; dis[a] = 16

Distance: S, b, c, a renew.

S{ S(0), b(5), a(16), c(12), e(?), d(?) }

S → b → a; S → b → c; S → b → d

dis[a] = 8; dis[c] = 10; dis[d] = 9

Distance: a, c, d renew.

S{ S(0), b(5), a(8), c(10), e(?), d(9) }

S → b → c → e;

Dis[e] = 12

Distance: e renew.

S{ S(0), b(5), a(8), c(10), e(12), d(9) }

### Problem 3(2)

Shortest path

a: S → b → a

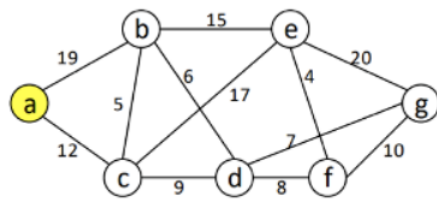
b: S → b

c: S → b → c

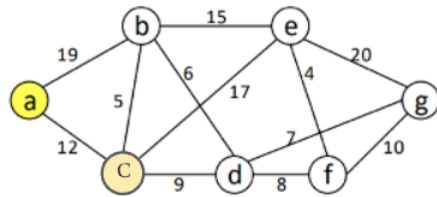
d: S → b → d

e: S → b → c → e

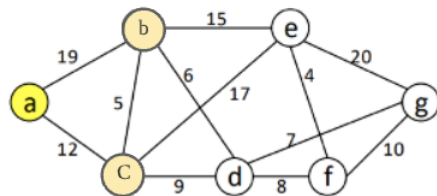
# Problem 4



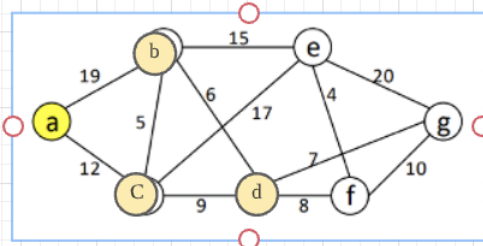
(a,c) is minimum-weight edge



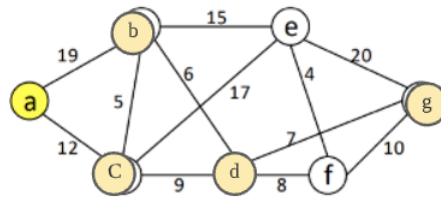
(c,b) is minimum-weight edge



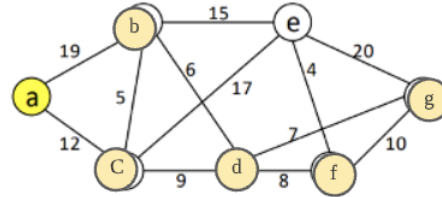
(b,d) is minimum-weight edge



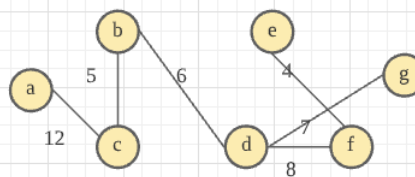
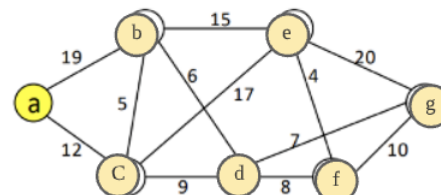
(d,g) is minimum-weight edge



(d,f) is minimum-weight edge



(f,e) is minimum-weight edge



Sequence:

a->c->b->d->g->f->e

Weight:

(a,c) 12

(c,b) 5

(b,d) 6

(d,g) 7

(d,f) 8

(f,e) 4