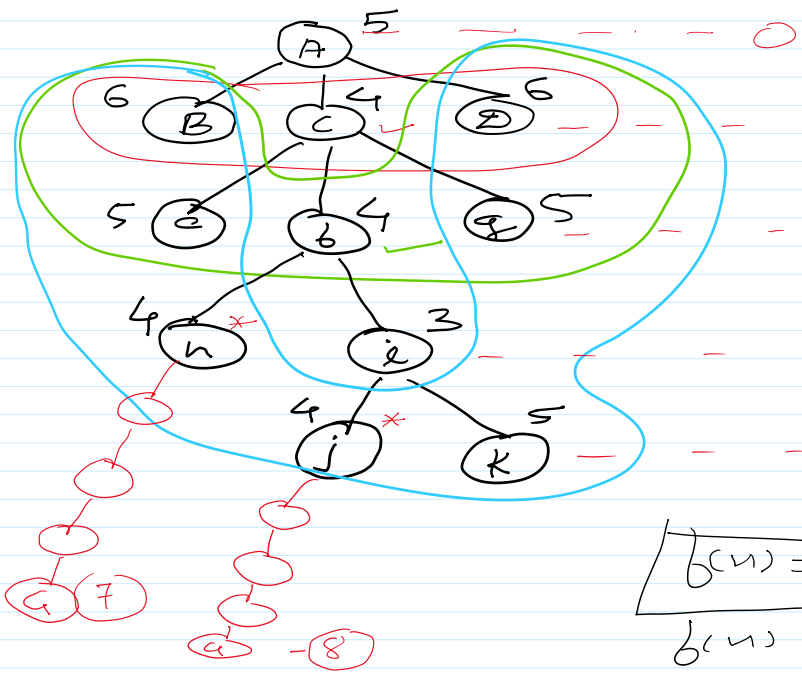
A* Search

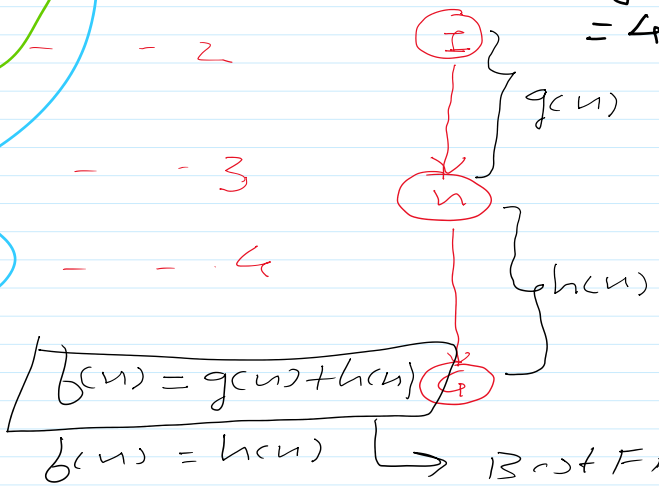


$f(n) = g(n) + h(n)$

$= 3 + 4 = 7$

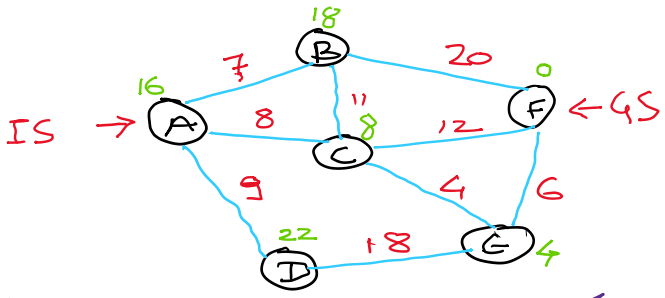
$f(j) = g(j) + h(j)$

$= 4 + 4 = 8$

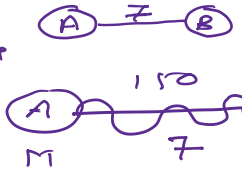


A - Admissible
- Complete
- Consistent

Route Finding Problem :



h(n) < ≠



Actual Distance > Straight Line distance

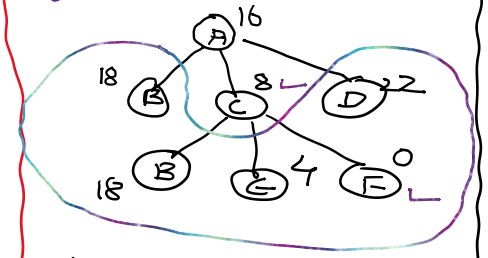
SDL = AD - 2

SDL(A) = 18 - 2
= 16

h(A) = 16
h(B) = 18

Best First Search

$f(n) = h(n)$

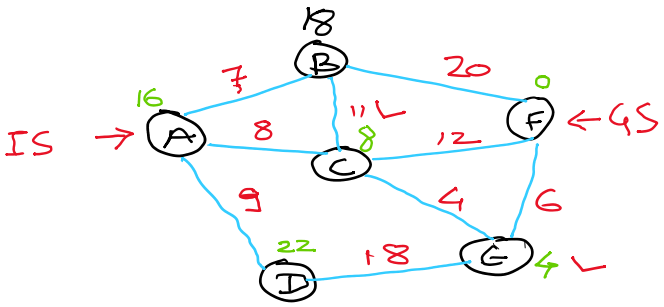


Soln :-

= 20

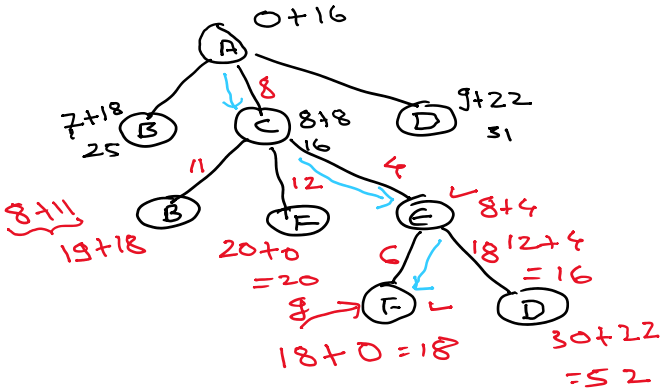
A* Search

$f(n) = g(n) + h(n)$



A*

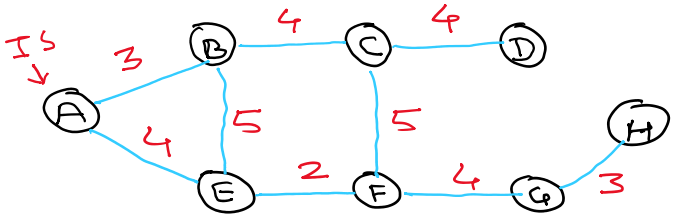
$f(n) = g(n) + h(n)$



Solution Path

= A 8 C 4 E 6 F

= 18



h(B) = 14 h(F) = 10
h(C) = 10 h(G) = 10

- Best First Search
- A* Search

h(D) = 8 h(H) = 0
h(E) = 12 h(A) = 15