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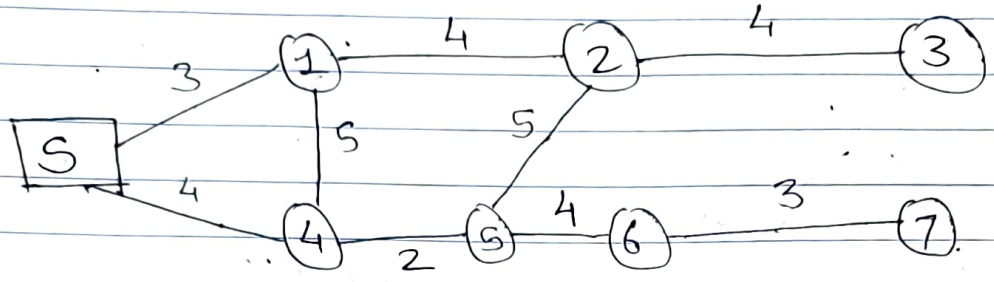
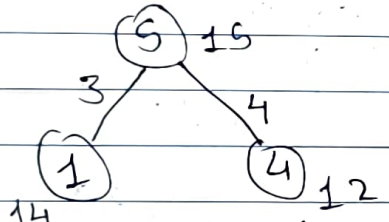
EXPERIMENT NO. 4

A* algorithm



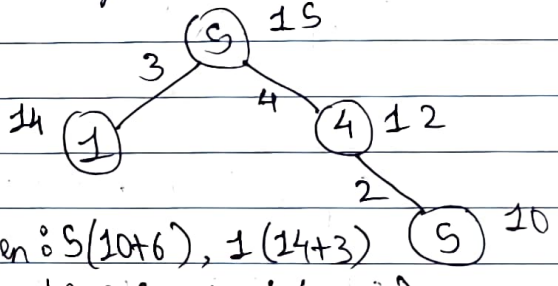
Start state (S), Goal state = 7. Find path using A* search, given h(1) = 14, h(2) = 10, h(3) = 8, h(4) = 12, h(5) = 10, h(6) = 10, h(7) = 15

Step - I



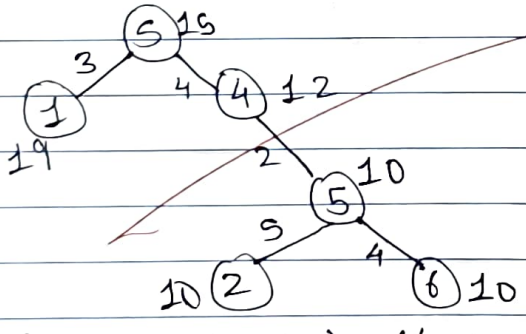
Open : 4 (12+4), 1(14+3)
Closed : S(15)

Step - II



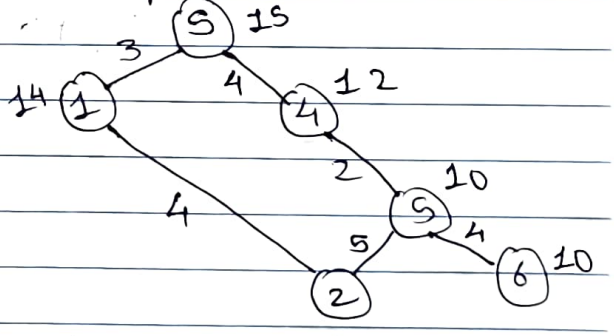
Open : S(10+6), 1(14+3)
Closed : S(15), 4(12+4)

Step - III



Open : 1(14+3), 6(10+10), 2(10+11)
Closed : S(15), 4(12+4), 5(10+6)

Step - IV



Open : 2(10+7) 6(10+10)
Closed : S(5), .., 1(14+3)

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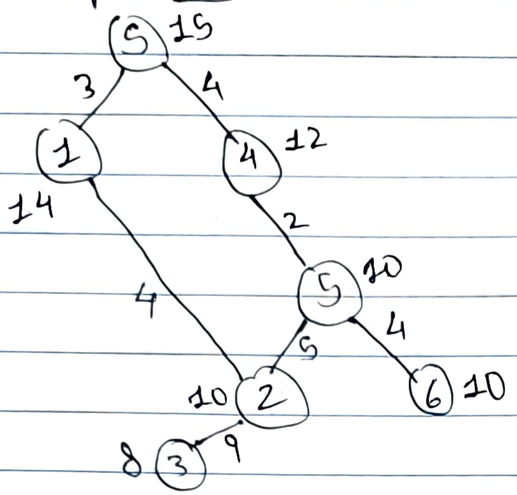
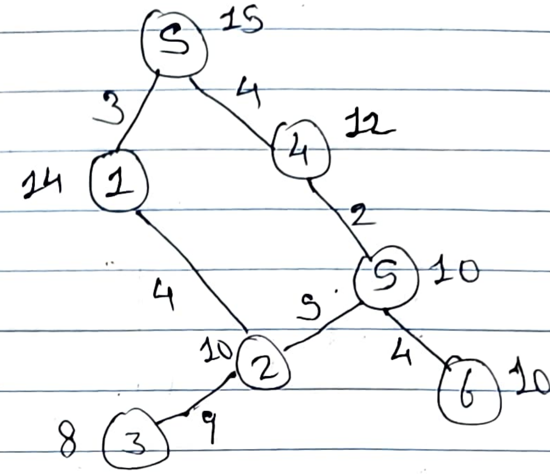
Step - V



Open : 3(8+11), 6(10+10)
Closed : S(15), 4(12+4), 5(10+6),
1(14+3), 2(10+7)

Step - VI

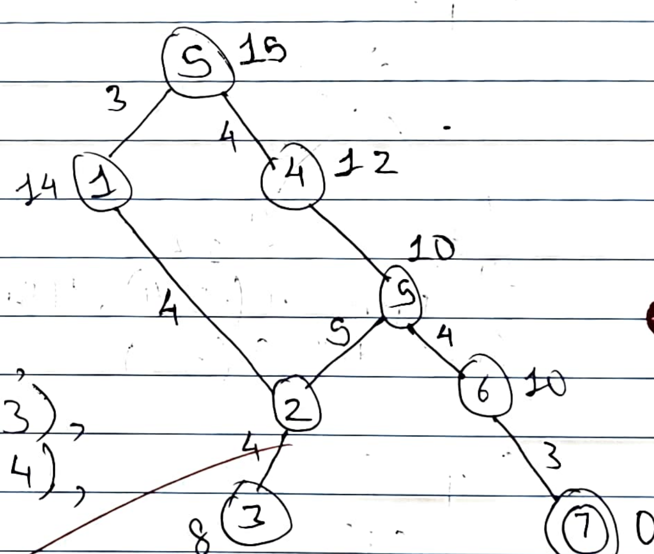


Open : 6 (10+10)
Closed : S(15), 4(12+4), ...,
2(10+7), 3(8+11)

Step - VII

Open : 7(0+13)

Closed : S(15), 4(12+4),
5(10+6), 1(14+3),
2(10+7), 5(8+4),
6 (10+10)



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