A → B → C

g(n) = 3

h(n) = 4

f(n) = 3 + 4 = 7

A → B → D

g(n) = 4

h(n) = 3

f(n) = 4 + 3 = 7

A → B → D → F

g(n) = 6

h(n) = 1

f(n) = 7

A → B → C → E

g(n) = 8

h(n) = 3

f(n) = 8 + 3 = 11

A → B → D → G

g(n) = 8

h(n) = 0

f(n) = 8

A → B → C → E → G

g(n) = 11

h(n) = 0

f(n) = 11

A → B → D → F → G

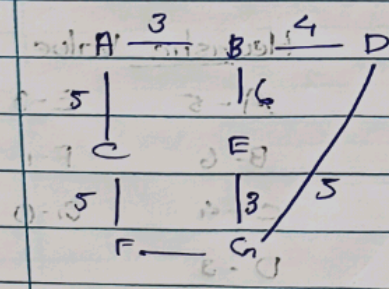
g(n) = 7

h(n) = 0

f(n) = 7

path = A → B → D → F → G

1)



A = 10 F = 3

B = 8 G = 0

C = 7

D = 4

E = 2

A → B

g(n) = 3 + 8 = 11

A → C

g(n) = 5 + 7 = 12

A → B → E → G

g(n) = 3 + 6 + 3 = 12

A → B → E

g(n) = 9 + 2 = 11

A → B → D

g(n) = 7 + 4 = 11

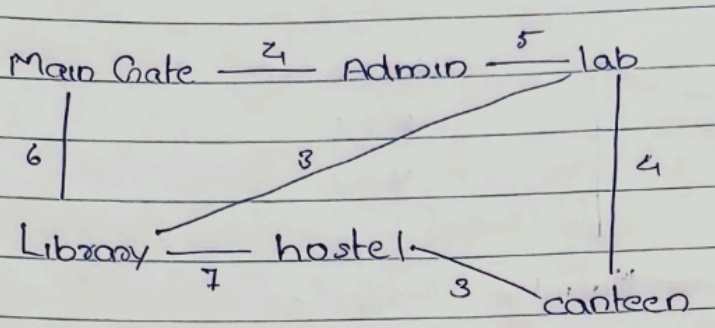
A → B → D → G

g(n) = 3 + 4 + 5 = 12

apsara

Date: ___ . ___ . ___

2)



Main - 12
Admin - 9
Library - 8
Lab - 5
Hostel -

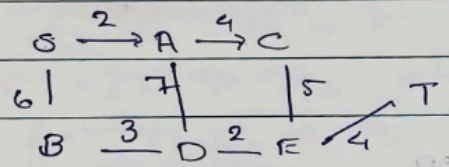
Main → Admin
$g(n) = 4 + 9 = 13$

Main → Library
$g(n) = 6 + 8 = 14$

Main → Admin → lab
$g(n) = 4 + 5 + 5 = 14$

Main → Admin → lab → canteen
$g(n) = 4 + 5 + 4 + 0 = 13$

3)



S → A
$g(n) = 2 + 10 = 12$

S → B
$g(n) = 6 + 8 = 14$

S → A → C
$g(n) = 2 + 4 + 6 = 12$

S → A → D
$g(n) = 2 + 7 + 5 = 14$

S → A → C → E
$g(n) = 2 + 4 + 5 + 0 = 11$

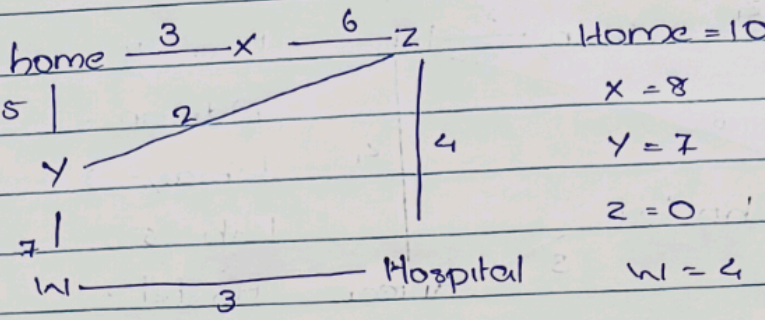
S → A → C → E → T
$f(n) = 2 + 4 + 5 + 4 + 0 = 15$

Path = S → A → C → E → T

Cost = 15

Date: __/__/____

5)



Home = 10
X = 8
Y = 7
Z = 0
W = 4

Home → X
f(n) = 3 + 8 = 11

Home → Y
f(n) = 5 + 7 = 12

Home → X → Z
f(n) = 3 + 6 + 0 = 9

Home → X → Z → Hospital
f(n) = 3 + 6 + 4 + 0 = 13

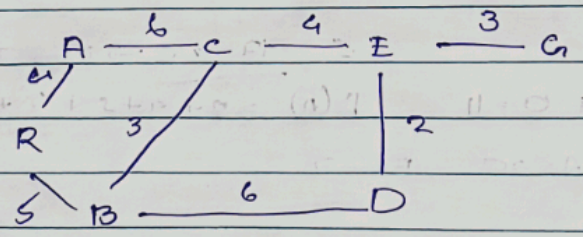
∴ Path = Home → X → Z → Hospital

Cost = 13

**)

closed	Open
1)	Home
2) Home	Home → {X, Y}
3) Home, X	X → {Home, Z}
4) Home, X, Z	Z → {X, Y, Hospital}
5) Home, X, Z, Hospital	Goal Reached.

4)



R → A
f(n) = 4 + 9 = 13

R → B
f(n) = 5 + 8 = 13

R → A → C
f(n) = 10 + 6 = 16

R → B → C
f(n) = 8 + 6 = 14

R → B → D
f(n) = 11 + 5 = 16

Date:

R → B → C → F

f(n) = 12 + 0 = 12

R → B → C → E → G

f(n) = 15 + 0 = 15