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Day

Time :

Date :

UNIVERSITY OF ASIA PACIFIC

DEPT OF CSE

18101009
HASAN TAHSIN RAFSAN
CSE-A - 4TH YEAR-1STSEMESTER

CLASS TEST-2

07 SEPT-2021

CSE403 || AI&ES

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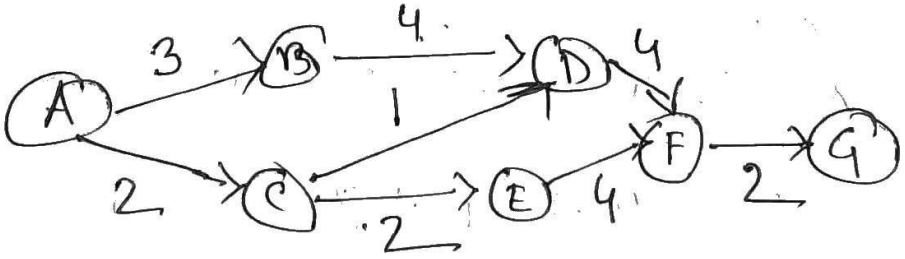
Ans: 1

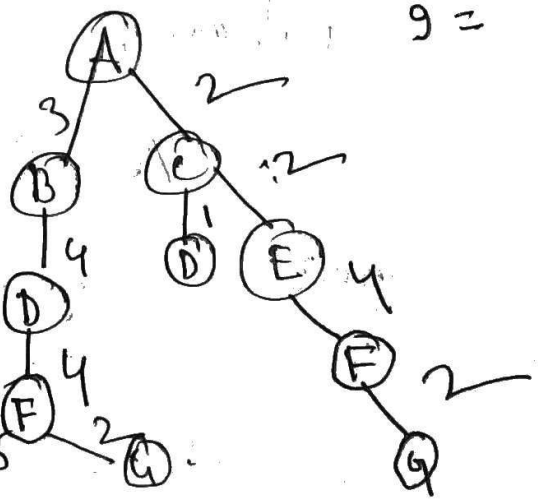
Id = 1810009 last 2 dig = 09

$h(A) = 9\%3+3 = 3$
$h(B) = 9\%4+4 = 5$
$h(C) = 9\%5+5 = 9$
$h(D) = 9\%6+6 = 9$
$h(E) = 9\%3+2 = 2$
$h(F) = 9\%4+3 = 4$
$h(G) = 0$

$A \to B = 3$
$A \to C = 2$
$B \to D = 4$
$C \to D = 1$
$C \to E = 2$
$D \to F = 4$
$E \to F = 4$
$F \to G = 2$



$F(A) = g(A) + h(A) = 0+3 = 3$
$F(B) = g(B) + h(B) = 3+5 = 8$
$F(C) = g(C) + h(C) = 2+9 = 11$
$F(D) = g(D) + h(D) = 1+9 = 10$
$F(E) = g(E) + h(E) = 2+2 = 4$
$F(F) = g(F) + h(F) = 4+4 = 8$
$F(G) = g(G) + h(G) = 2+0 = 2$



13
10
9 =

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F(D) when B → D

g(D) + h(D) = 4 + 9 = 13

For F(G), the both values are same.

now, initialization taken.

~~(A, 3)~~

~~(A, 3), (B, 8), (B, 8), (B, 8)~~

when.

A → B → D → F → G then.

path 3 + 4 + 4 + 2 = 13

when,

A → C → E → F → G then

path 2 + 2 + 4 + 2 = 10

So, our selective path is A → C → E → F → G

3

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~~Heuristic solve~~

Here. $A \to B = 3$ $3 > 2$, So, $A \to C$ taken.

$A \to C = 2$

$A \to B \to D = 3 + 4 = 7$

$A \to C \to E = 2 + 2 = 4$

$7 > 4$.

So, $A \to C \to E$ taken.

then.

$A \to B \to D \to F = 3 + 4 + 4. = 11$

$A \to C \to E \to F = 2 + 4 + 4 = 10$

$11 > 10$

So, $A \to C \to E \to F$ taken.

$\therefore$ selected path $A \to C \to E \to F \to G$.