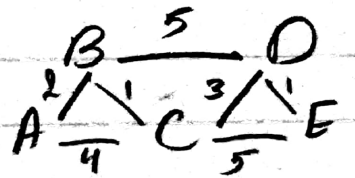


Sh 6



Q:1

	A	B	C	D	E
A → 0	0	-	-	-	-
B → (∞, -)	(2, A)	-	-	-	-
C → (∞, -)	(4, A)	(3, B)	-	-	-
D → (∞, -)	-	(7, B)	(6, C)	-	-
E → (∞, -)	-	-	(8, C)	(7, D)	-

update the shortest path, when u visit a new Node

Path  $\Rightarrow A \xrightarrow{1} B \xrightarrow{3} C \xrightarrow{1} D \xrightarrow{1} E$ , Cost = 7

Q:2 use Flood, with max Hop Count = 3, list routes from A → D

i=1: A sends to neighbours [B, G]

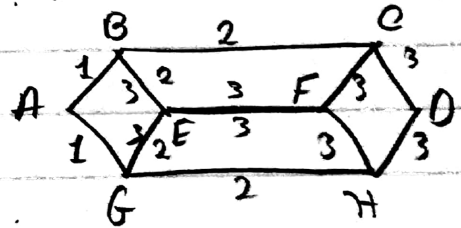
i=2: B sends to neighbours [E, C] No A

G sends to neighbours [E, H] No A

i=3: C sends to neighbours [F, D] No B

H sends to neighbours [F, D] No G

E sends to neighbours [B, F] then msg from G & [G, F] then msg from B.



Since, max Hop Count = 3, we can't send any more messages, even if more Nodes are available in the Graph!

\* Routes (A → D)  $\Rightarrow$  ABCD & AGHD

\* No used hops  $\Rightarrow$  Count all the msg's (nos) on the graph = 14

(11)  $\rightarrow$  msg for every link + (1)  $\rightarrow$  one more msg on E → F + (2)  $\rightarrow$  From B → G through E + From G → B through E