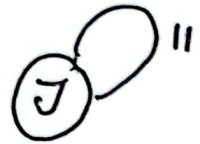
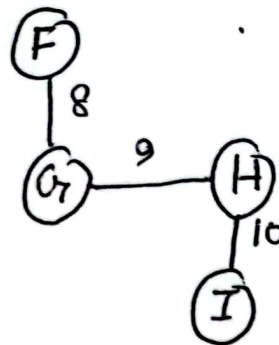
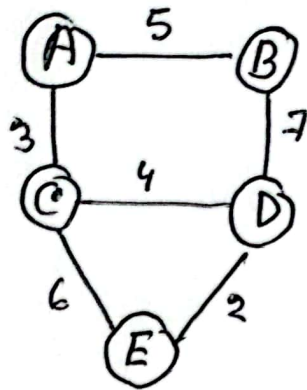


b) It's a directed graph because each edge has been represented once. In undirected graph, each edge is represented twice.

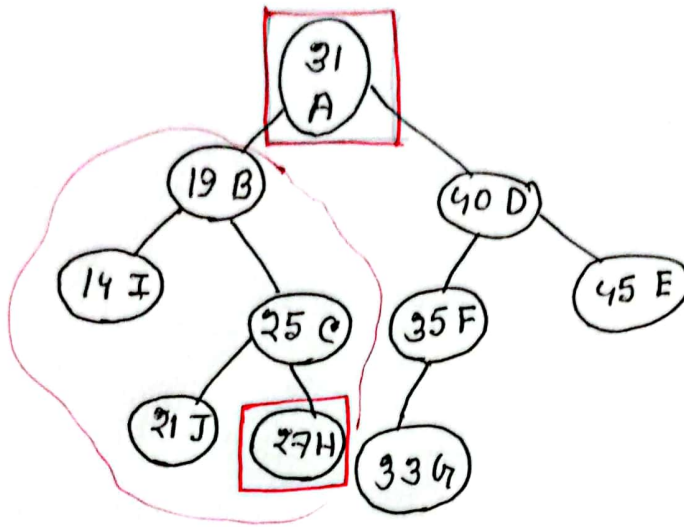
Convert Directed to undirected graph!



	0 A	1 B	2 C	3 D	4 E	5 F	6 G	7 H	8 I	9 J
0 A		5	3							
1 B	5			7						
2 C	3			4	6					
3 D		7	4		2					
4 E			6	2						
5 F							8			
6 G						8		9		
7 H							9		10	
8 I								10		
9 J										11

©

A	B	C	D	E	F	G	H	I	J
31	19	25	40	45	35	33	27	14	21



Shortcut to verify:

In-order traversal: left Root right

14 I, 19 B, 21 J, 25 C, 27 H, 31 A, 33 G, 35 F, 40 D, 45 E

Pred Succ
↖ ↗

Pred of 31: left sub-tree exists.

∴ pred is right most node of left sub-tree.

∴ pred of 31 is 27 H

After Deletion of 31 A:

