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Sec: 13

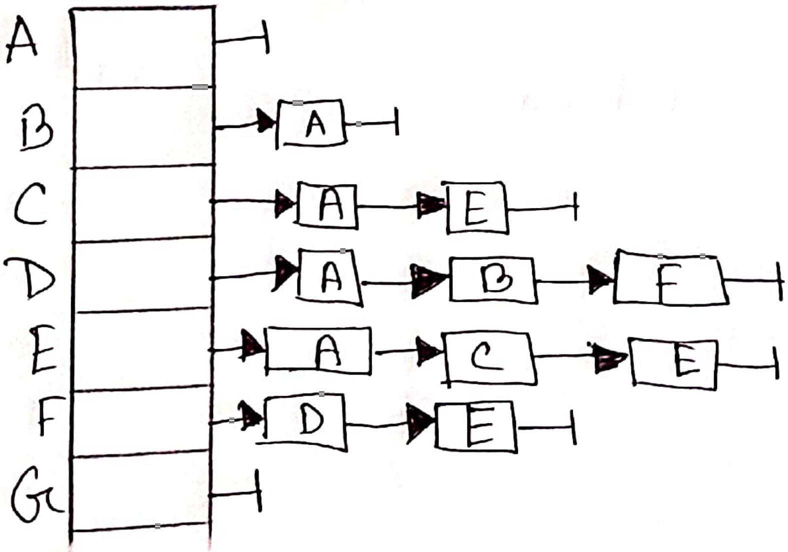
Course Code: CSE220

Answer to Question No 3:

	A	B	C	D	E	F	G
A	0	0	0	0	0	0	0
B	1	0	0	0	0	0	0
C	1	0	0	0	1	0	0
D	1	1	0	0	0	1	0
E	1	0	1	0	0	1	0
F	0	0	0	0	1	0	0
G	0	0	0	0	0	0	0

Adjancy Matrix (Outgoing)

~~A~~ Adjancy List (Outgoing):



Answer to Question No 1:

```
def ~~reverseEncrypt(message, key, 0)~~
    ~~l = me len(message)~~

def reverseEncrypt (message, key, startIndex = 0):
        l = ~~a~~message[startIndex]
        ~~if ord(l) ≤ 90:~~
            ~~key~~
            ~~val = ord(l) +~~
        val = ord(l) + key
        if val ≤ 90:
            ~~temp = reverseEncrypt(message, key, startIndex + 1)~~
            temp = char(val)
        else:
            ~~temp = val~~
            i = {(val - 90) + 65} - 1
            temp = ~~char(val~~ char(i)
        reverseEncrypt(message, key, startIndex + 1)
        print(temp, end = '')
```

string = 'ABC'

reverseEncrypt(string, 8, 0)

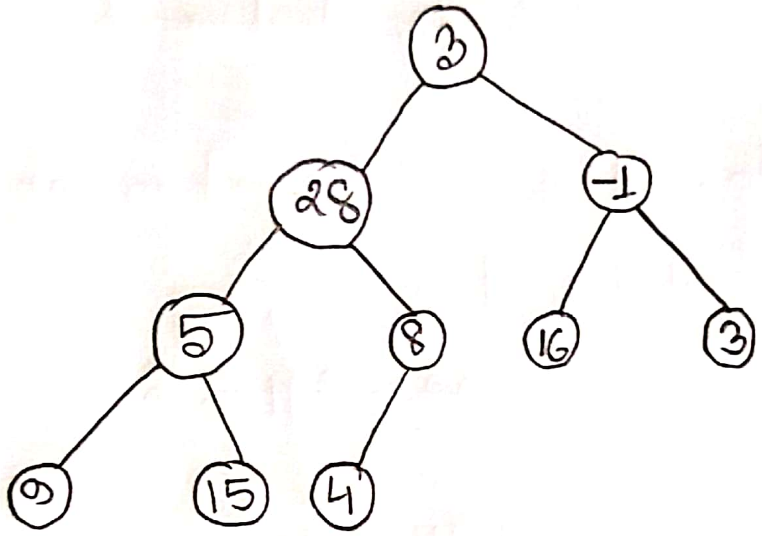
Answer to Question No 2(b)

~~Diff~~

A tree is a connected acyclic graph. This means that there cannot be any cycle present in a graph to be a tree. On the other hand, a graph can be cyclic and also acyclic. That's the difference between a graph and a tree.

Answer to Question No 2(a):

Complete binary tree:



In-order traversal:

Firstly ~~it~~ 3 will be visited and then ~~tes~~ left subtree will be visited and lastly right subtree will be visited. Showing the order of nodes according to their visits:

3 → 28 → 5 → 9 → 15 → 8 → 4 → -1 → 16 → 3
↓
root node

Post order traversal:

Firstly the leftmost grandchild will be visited. Then the rightmost will be visited. Lastly, the root node 3 will be visited. Showing the sequence below.

9 → 15 → 5 → 4 → 8 → 28 → 16 → 3 → → 1 → 3

↓

This is the root node