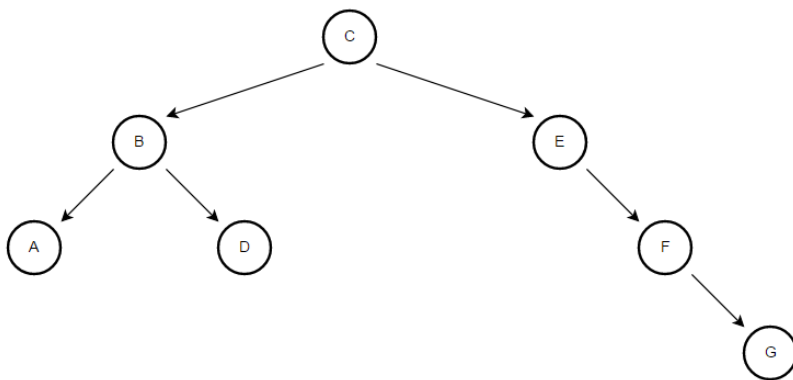
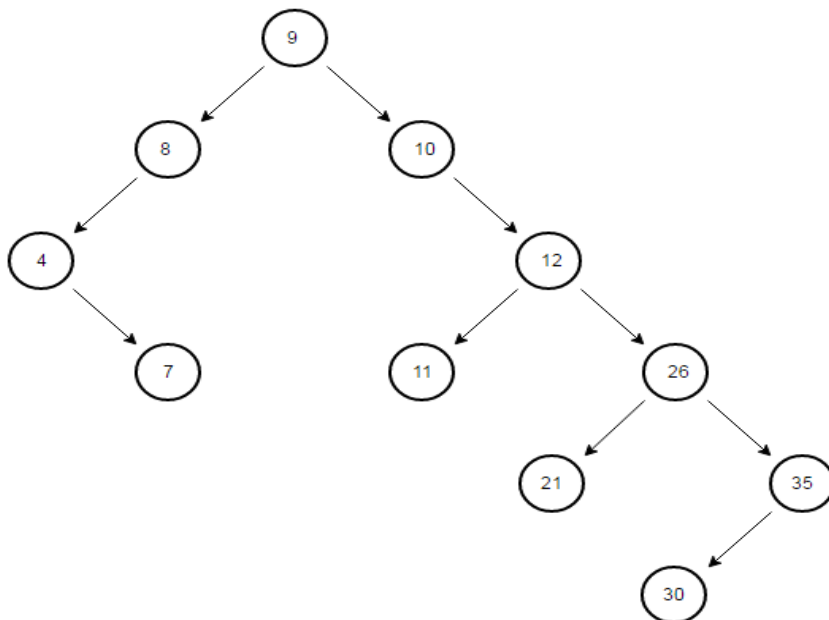


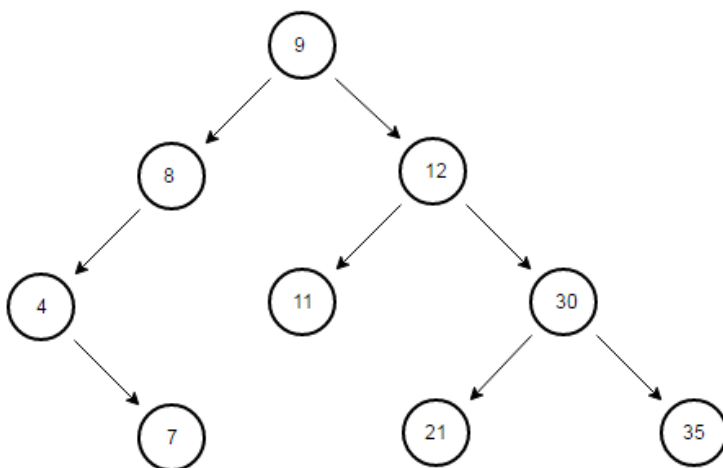
1-a)



1-b)



1-c)



2-a)

	1	2	3	4	5	6	7	8	9
1	0	0	1	0	0	0	1	0	0
2	0	0	0	0	1	0	0	1	0
3	0	1	0	0	0	1	0	0	0
4	1	0	0	0	0	1	1	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	1	0	0	0	0
7	0	1	0	0	0	0	0	0	0
8	0	0	0	0	0	0	1	0	1
9	0	0	0	1	0	0	0	0	0

2-b) 1-3-7-2-6-5-8-9-4

2-c) 5-7-6-4-9-8-2-3-1

2-d)

int count = 0;

for(int i=0;i<A.size();i++) cout << A[i] << " ";

return count;

2-e) $O(n^2)$

2-f) $O(n)$

3-a)

Index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Value	4	10	7	18	11	19	14	41	25	28	12	67	37	52	22

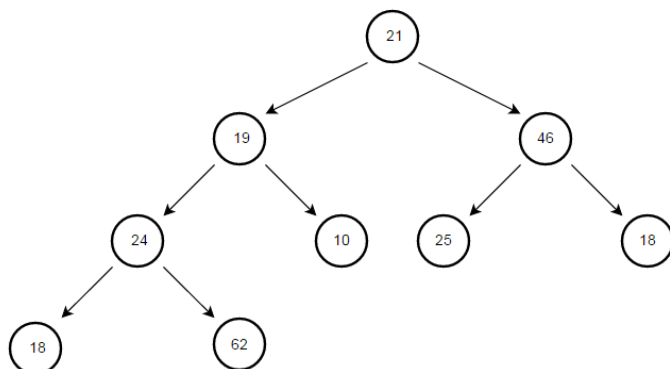
3-b)

Index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Value	7	10	14	18	11	19	22	41	25	28	12	67	37	52	

3-c)

Index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Value	7	10	14	18	11	19	19	41	25	28	12	67	37	52	22

3-d)



4-a)

```
int count(node *n)
{
    if (t == 0) return 0;
    return 1 + count(n->left) + count(n->right);
}
```

4-b)

```
int func(tree & t)
{
    node * n = t.root;
    while(n->right!=null) n=n->right;
    int max= n->info;
    n=t.root;
    while(n->left!=null) n=n->left;
    int min= n->info;
    return min+max;
}
```