Data Structure HW5

1.

output: 8、10、11、15
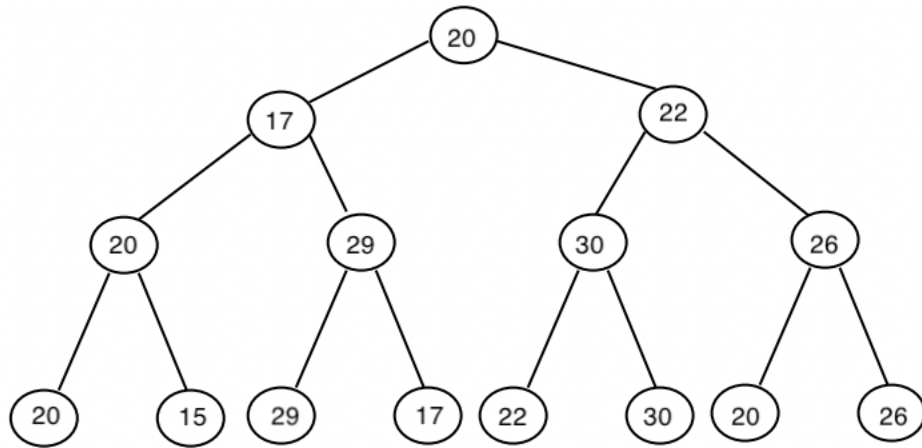
2.

(a)

preorder: ABCFEGIJHKLMND
postorder: FCBJILKHGDNMEA

(b)
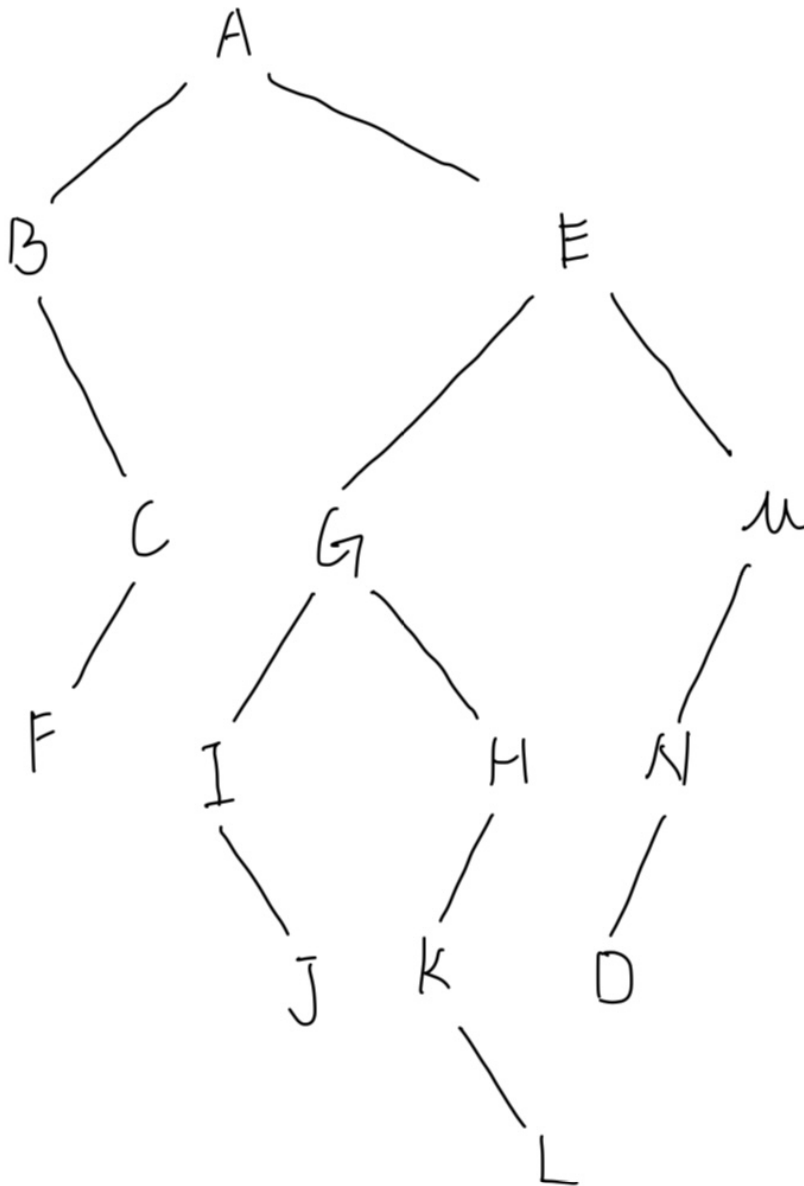
(c)

Yes

3.

(a)

0	1	0	0	1	0	0	0	0	0
1	0	1	0	0	0	0	1	0	1
0	1	0	0	0	0	0	1	0	0
0	0	0	0	0	1	0	0	0	0
1	0	0	0	0	0	0	0	1	1
0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	0
0	1	1	0	0	0	0	0	0	0
0	0	0	0	1	0	1	0	0	0
0	1	0	0	1	1	0	0	0	0

(b)

index	data
0	->1->4
1	->0->2->7->9
2	->1->7
3	->5
4	->0->8->9
5	->3->9
6	->8
7	->1->2
8	->4->6
9	->1->4->5

(c)
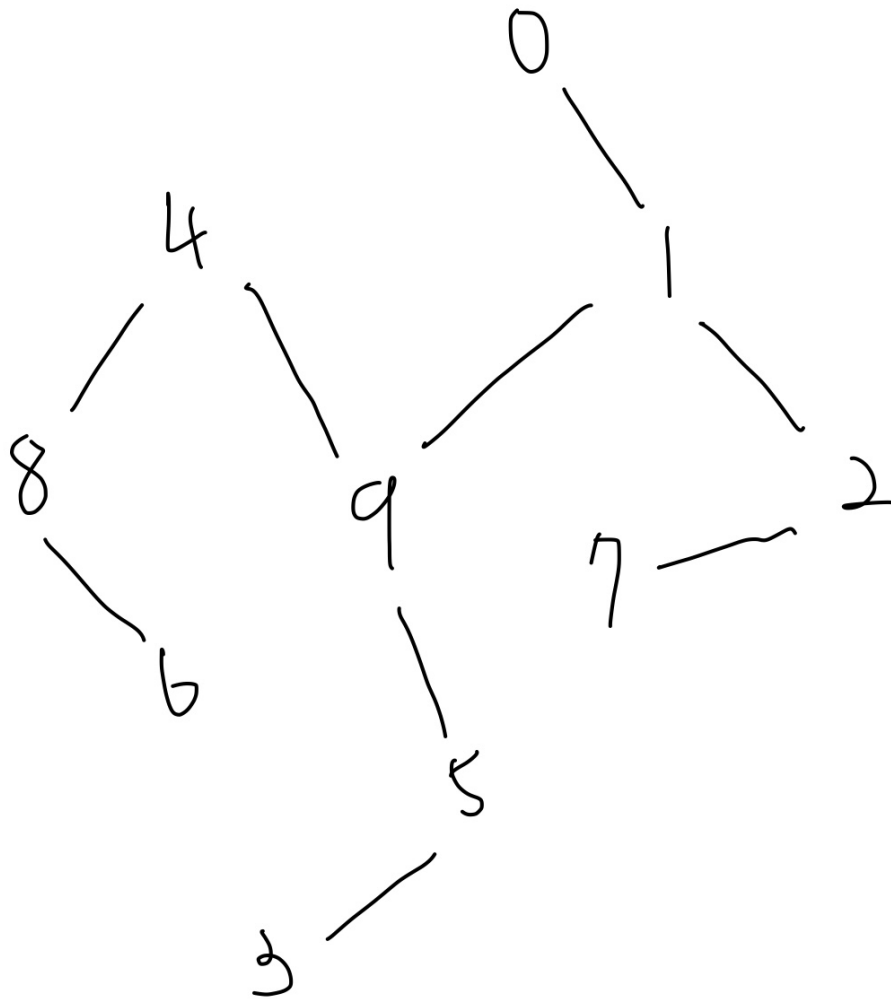
(d)
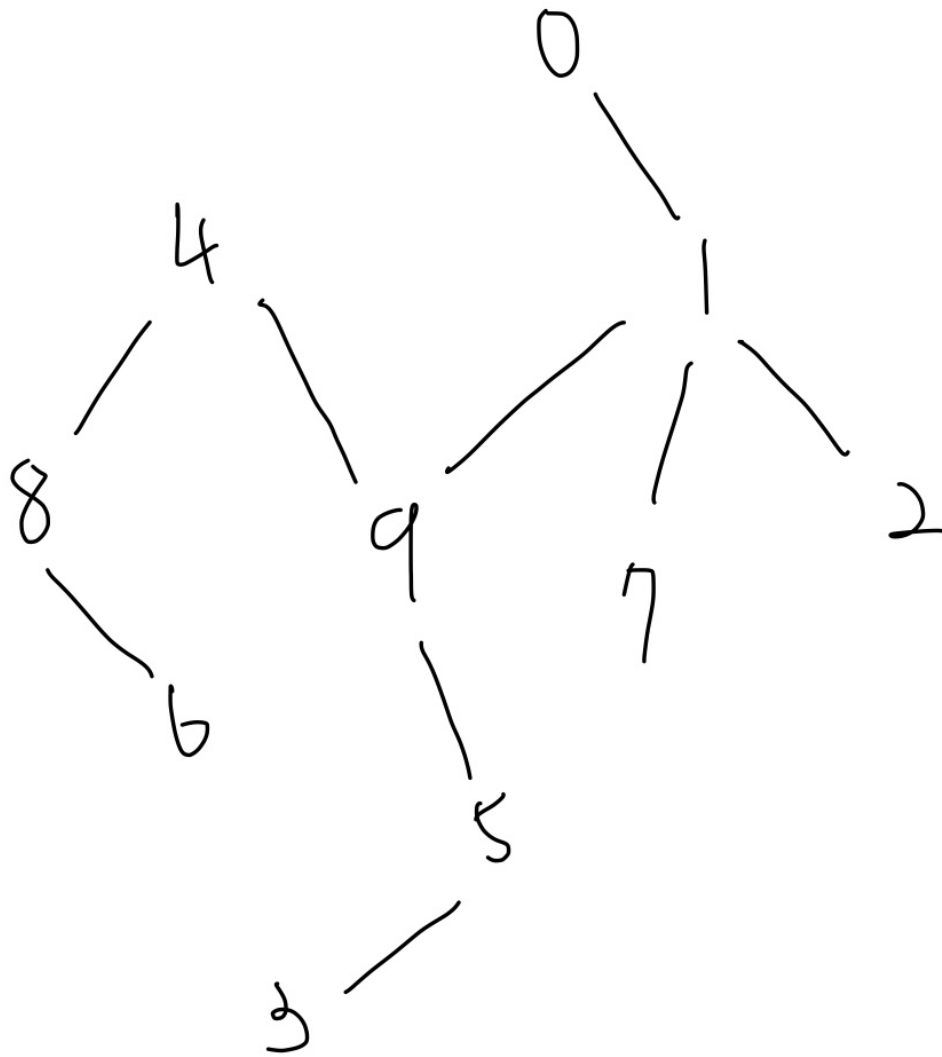
(e)

start from node 0

node #	dfn(i)	low(i)
0	0	0
1	1	0
2	2	1
3	9	9
4	5	0
5	8	8
6	7	7
7	3	1
8	6	6
9	4	0

start from node 9

node #	dfn(i)	low(i)
0	2	0
1	1	0
2	6	1
3	9	9
4	3	0
5	8	8
6	5	5
7	7	1
8	4	4
9	0	0

articulation points: 1、4、5、8、9

(f)