21 Lecture - CS301

Important Mcqs

1. **What is the first node added to the AVL Tree in the building example?**
   a) 1
   b) 2
   c) 5
   d) 8

Answer: c) 5

2. **What is the second node added to the AVL Tree in the building example?**
   a) 1
   b) 2
   c) 3
   d) 8

Answer: b) 2

3. **How many rotations are performed to maintain balance after inserting node 1 in the AVL Tree?**
   a) 0
   b) 1
   c) 2
   d) 3

Answer: b) 1

4. **What is the height of the AVL Tree after inserting node 3?**
   a) 1
   b) 2
   c) 3
   d) 4

Answer: b) 2

5. **Which rotation is performed after inserting node 6 to maintain balance in the AVL Tree?**
   a) Left rotation
   b) Right rotation
   c) Left-right rotation
   d) Right-left rotation

Answer: a) Left rotation

6. **What is the height of the AVL Tree after inserting node 9?**
   a) 3

b) 4
c) 5
d) 6

Answer: b) 4

7. **What is the root node of the AVL Tree after inserting all the nodes?**
   a) 1
   b) 2
   c) 5
   d) 8

Answer: c) 5

8. **Which is the last node added to the AVL Tree in the building example?**
   a) 6
   b) 8
   c) 9
   d) 3

Answer: c) 9

9. **What is the maximum height of an AVL Tree with 7 nodes?**
   a) 2
   b) 3
   c) 4
   d) 5

Answer: b) 3

10. **How many rotations are performed in total to maintain balance while building the AVL Tree in the example?**
    a) 2
    b) 3
    c) 4
    d) 5

Answer: c) 4