**Assignment No. 2**

Solve the Following Recurrence Equations. Show all steps as was done in the class. State any assumption where necessary.

Explicitly state the **basis case** for each question also.

1. T(n) = T(n/3) + 3
2. T(n) = T(n-3) + 3
3. T(n) = 3T(n/3) + 2
4. T(n) = T(n/2) + n2
5. T(n) = 4T(n/2) + n2
6. T(n) = T(n/2) + n3
7. T(n) = 27T(n/3) + n3
8. T(n) = 2T(n/4) + n1/2
9. T(n) = 3T(n/3) + 2n
10. T(n) = T(n-1) + n2