**Solution to PART 1 Questions**

1. T (n) = 3T (n/2) + n **🡪 Θ(n^1.585)**
2. T (n) = 64T (n/8) - n^2(log n) **🡪 Not Applicable**
3. T (n) = 2nT (n/2) + n^n 🡪 **Θ(n^n) for( n>2) or Θ(n^n log n) for (n<=2)**
4. T (n) = 3T (n/3) + n/2 **🡪**  **Θ(n log n)**
5. T (n) = 7T (n/3) + n^2 **🡪**  **Θ(n^2)**