PART 1

1. T(n) = 3T(n/2) + n

Solution: **Ɵ(n ^ loga b)**

a > bd

Case 3 is applicable

T(n) = **Ɵ(n)**

1. T(n) = 64T(n/8) – n^2(log n)

Solution: **NA**

1. T(n) = 2nT(n/2) + n^n

Solution: **NA**

1. T(n) = 3T(n/3) + n/2

Solution: **Ɵ(n log n)**

a= bd

Case 2 is applicable

T(n) = Ɵ(nd log n) = Ɵ(n log n)

1. T(n) = 7T(n/3) + n^2

Solution: **Ɵ(n2)**

a < bd

Case 1 is applicable

T(n) = Ɵ(nd) = Ɵ(n2)