Master’s Theorem => T(n) = aT(n/b) +f(n) where a>=1, b>=2, c>0, d>=0

Case1 => T(n) = Θ(n^d) if a < b^d

Case2 => T(n) = Θ(n^d logn) if a = b^d

Case3 => T(n) = Θ(n loga[base b]) if a > b^d

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

Ans. Θ (

1. T (n) = 64T (n/8) − n^2(log n)

Ans. Here f(n) is negative, so the equation solution cannot be determined

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

Ans. Here ‘a’ i.e. ‘a’ = 2n, is not constant, so it does not fall in any of the 3 scennarios of master’s theorem. Hence it cannot be calculated

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

Ans. Θ (

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

Ans.   Θ ()