|  |  |
| --- | --- |
| **Part 1** |  |
| **Question** | **Solution** |
| a) T (n) = 3T (n/2) + n | Θ(n^log3) - As per case 1 |
| b) T (n) = 64T (n/8) − n^2(log n) | NA – Since f(n) is not positive |
| c) T (n) = 2nT (n/2) + n^n | NA – Since “a” is not a constant |
| d) T (n) = 3T (n/3) + n/2 | Θ(nlogn) - As per case 2 |
| e) .T (n) = 7T (n/3) + n^2 | Θ(n^2) – As per case 3 |