Subject : .....

Task 1

Date: / /

$2 + \log N(3+2)$

$c \cdot g(n) = 6 \log(N) + 2$

$2 + 5\log(n) \leq 6\log(n) + 2$ for $N_0 \geq 1$

$\Theta(\log(n))$ $c = 6$

(Ω)

$\log(n) \leq 2 + 5\log(n)$ for $N_0 \geq 1$

$c \cdot g(n)$ $c = 1$

$\log(n) \leq 2 + 5\log(n) \leq 6\log(n) + 2$

$c_1 = 1$ $N_0 \geq 1$ $c_2 = 6$

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$3 + N(N(N(1)))$

$3 + 6N^3 \leq 7N^3$

$O(N^3)$

$N_0 \geq 2$

$C_1 = 7$

(~)

$N^3 \leq 3 + 6N^3$

$\Omega(N^3)$

$C = 1$

$N_0 \geq 1$

(θ)

$N^3 \leq 3 + 6N^3 \leq 7N^3$

$C_1 = 1$

$C_2 = 7$

$N_0 \geq 2$