GATE

1. For the given digital circuit, $A = B = 1$. Assume that AND, OR, and NOT gates have propagation delays of 10 ns,10 ns, and 5 ns respectively. All lines have zero propagation delay. Given that $C = 1$ when the circuit is turned on, the frequency of steady-state oscillation of the output Y is _____.

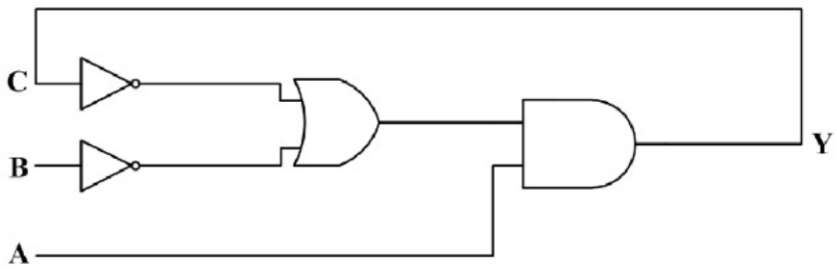

Figure 1: Image

(a) 20 MHz

(b) 15 MHz

(c) 40 MHz

(d) 50 MHz