GATE 2022 EC

EE:1205 Signals and System
Indian Institute of Technology, Hyderabad

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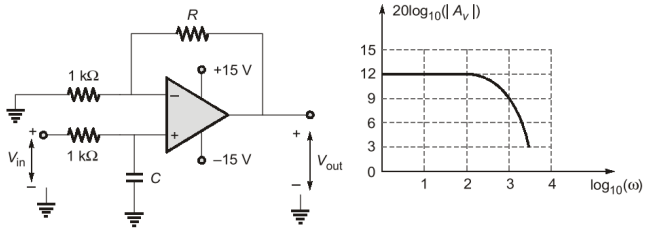
Question 42: A circuit with an ideal OPAMP is shown. The Bode plot for the magnitude (in dB) of the gain transfer function $(A(j\omega)) = \dfrac{V_{out}(j\omega)}{V_{in}(j\omega)}$ of the circuit is also provided (here, ω is the angular frequency in rad/s). The values of R and C are



(A) $R = 3k\Omega$, $C = 1\mu F$

(B) $R = 1k\Omega$, $C = 3\mu F$

(C) $R = 4k\Omega$, $C = 1\mu F$

(D) $R = 3k\Omega$, $C = 2\mu F$

Solution