GATE 2023 EC

EE23BTECH11023-ABHIGNYA GOGULA

Question28:

The Fourier transform $X(\omega)$ of $x(t) = e^{-t^2}$ is

Note: $\int_{-\infty}^{\infty} e^{-y^2}\, dy = \sqrt{\pi}$

A) $\sqrt{\pi}e^{\frac{\omega^2}{2}}$

B) $\frac{e^{\frac{-\omega^2}{4}}}{2\sqrt{\pi}}$

C) $\sqrt{\pi}e^{\frac{-\omega^2}{4}}$

D) $\sqrt{\pi}e^{\frac{-\omega^2}{2}}$

Gate 2023 EC Question 28