IN-2023

EE23BTECH1153-R.Rahul*

QUESTION:

61. In the diagram shown, the frequency of the sinusoidal source voltage V_s is 50 Hz.The load voltage is 230 V (RMS), and the load impedance is $\frac{230}{\sqrt{2}}+j\frac{230}{\sqrt{2}}$ Ω. The value of attenuator $A_1=\frac{1}{50\sqrt{2}}$.The multiplier output voltage $V_o = \frac{V_x V_y}{1V}$, where V_x and V_y are the inputs. The magnitude of the average value of the multiplier output V_0 is _____ V