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NCERT Math 11.9.2 Q8

EE23BTECH11009 - AROSHISH PRADHAN*

Question: An input voltage in the form of a square wave of frequency $1 \, kHz$ is given to a circuit, which results in the output shown schematically below. Which one of the following options is the CORRECT representation of the circuit?

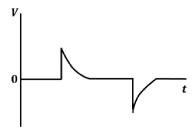


Fig. 1

$$V_{in}$$
 $0.5k\Omega$ V_{out}

(a)

$$V_{in}$$
 $5k\Omega \geqslant V_{ou}$

(b)

$$V_{in}$$
0.5 $k\Omega$
 V_{in}
0.1 μF
 V_{out}

(c)

$$V_{in}$$
 $1\mu F$
 V_{out}

(d)