

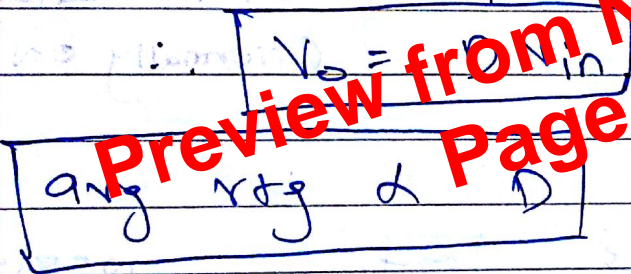
filter i/p $v_{tg} = v_{in}$ → switch is on.
 $= 0$ → switch is off.

$$\text{Duty cycle (D)} = \frac{t_{on}}{t_{on} + t_{off}} = \frac{t_{on}}{T}$$

$$\therefore T = t_{on} + t_{off} = \frac{1}{f}$$

Typically $f = 10$ to 50 KHz
 $\therefore T = 100\mu s$ to $20\mu s$.

$$V_o = \frac{t_{on}}{T} \times V_{in}$$



Preview from Notesale.co.uk
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① if we get square rectangular wave
 avg value can be adjusted using pulse
 generator.

filter can convert it to smooth DC
 removing ripples.