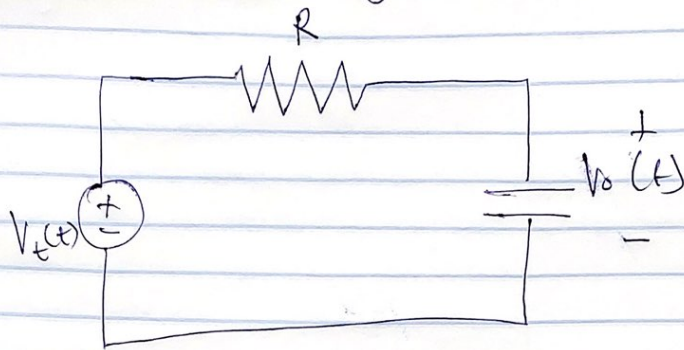


Idara Inibong Ede

17/Eng02/025

Computer Engineering

EEE 322 Circuit theory II



Answers

1. This is a low-pass filter

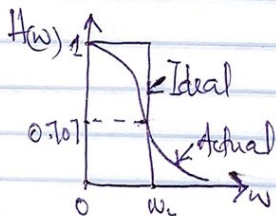
~~It is a low-pass filter~~

2. The cut off frequency ω_c , is obtained by setting the magnitude of $H(\omega)$ equal to $\frac{1}{\sqrt{2}}$ thus:

The cut off frequency is also known as the treble-cut filter.

$$H(\omega_c) = \frac{1}{\sqrt{1 + \omega_c^2 R^2 C^2}} = \frac{1}{\sqrt{2}}$$

$$\omega_c = \frac{1}{RC}$$



Ideal and the actual frequency
Response of low pass filter