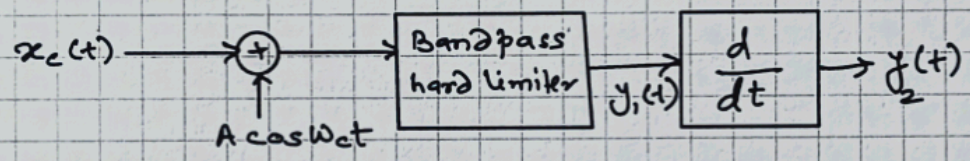
EE341: Communication Systems

Quiz # 2 (10 Marks)

Date: 09/09/2025 Time: 9:35 – 10:25

Q.1 Let a message signal $x(t) = \cos\omega_1 t + \cos\omega_2 t$ is FM modulated with carrier ω_c satisfying $\omega_c >> \max\{\omega_1, \omega_2\}$. Find the frequencies present in the FM signal. **4 Marks**

Q.2 Let $x_c(t) = A\cos(\omega_c t + \phi(t))$ is the FM signal corresponding to message signal $x(t)$. Consider:



Find (a) $y_1(t)$ and (b) $y_2(t)$. **3+3 Marks**
