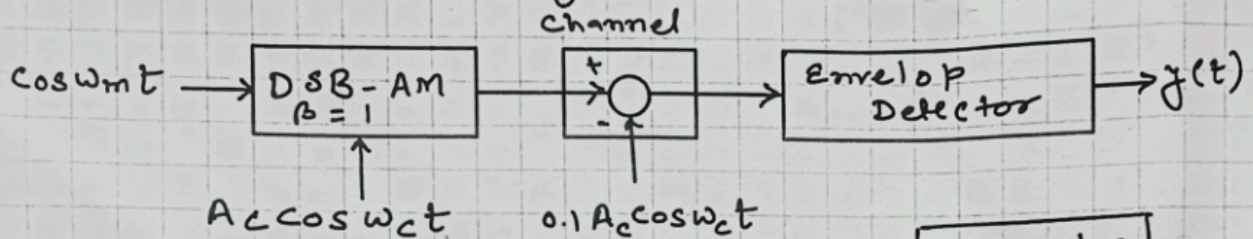


EE 341 : Communication Systems
Quiz #1 (10 Marks)

Date: 26/10/2025 Time: 9:30-10:20

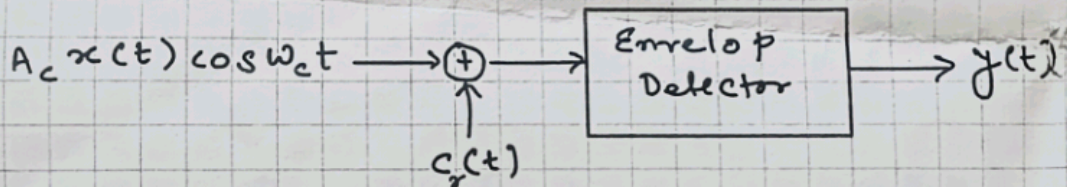
Q.1 Consider the following communication system.



Plot signal $y(t)$.

3 Marks

Q.2 Consider a demodulator shown below:



Find $y(t)$ for the following two cases:

(a) $c_r(t) = A_c \cos[(\omega_c + \Delta\omega)t]$

4 Marks

(b) $c_r(t) = A_c \cos[\omega_c t + \theta]$

3 Marks

$$x^2(t) + \cos^2 \theta + 2x(t) \cos \theta - \sin^2 \theta$$

- Lab

$$\cos t - \cos \theta - j \sin \theta$$

$$x(t) - \cos \theta - j \sin \theta$$