Rafay Aamir

SnS

Q.4

Q:-1

① To convert continuous time signal into descrete-time signal to process a discrete time signal using descrete time system and convert back to continuous time -

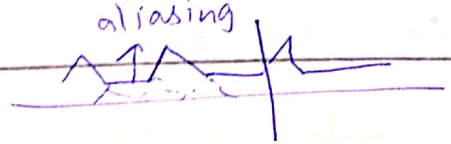
② Sampling rate should be ~~slow/lower~~ high

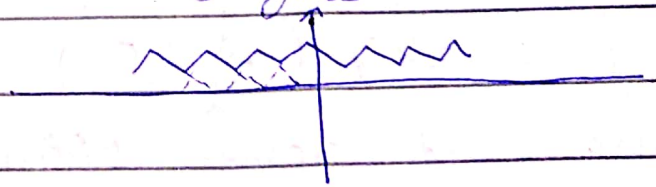
② $\omega_s > 2\omega_M$

$\frac{2\pi}{T} > 2\omega_M$

(c) The overlaping of the reconstruded signal when the following conditions becomes false.

$\omega_s > 2\omega_M$





Q2 $\omega_s = 10000\pi$

as

$$\omega_s > 2\omega_m$$

$$\frac{10000\pi}{2} > \omega_m$$

$$5000\pi > \omega_m$$

when $\omega_m > 5000\pi$ for $X(j\omega)$ will be zero