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Subject: Computer Networks

ASSIGNMENT-1

Draw a sine and cosine wave. Plot the message signal, carrier signal and amplitude modulated wave.

**Solution:**

clc;

clear all;

close all;

t=0:.001:1;

a1=input('Enter the amplitude of signal: ')

f1=input('Enter the frequency of signal: ')

y1=a1\*sin(2\*pi\*f1\*t);

subplot(5,1,1)

plot(y1)

ylabel('Amplitude')

xlabel('Time')

a2=input('Enter the amplitude of signal: ')

f2=input('Enter the frequency of signal: ')

y2=a2\*cos(2\*pi\*f2\*t);

subplot(5,1,2)

plot(y2)

ylabel('Amplitude')

xlabel('Time')

Am=input('Enter the amplitude of message signal: ')

Fm=input('Enter the frequency of message signal: ')

m=Am\*sin(2\*pi\*Fm\*t);

subplot(5,1,3)

plot(m)

ylabel('Amplitude')

xlabel('Time')

Ac=input('Enter the amplitude of carrier signal: ')

Fc=input('Enter the frequency of carrier signal: ')

c=Ac\*sin(2\*pi\*Fc\*t);

subplot(5,1,4)

plot(c)

ylabel('Amplitude')

xlabel('Time')

AM=(Ac+m).\*cos(2\*pi\*Fc\*t);

subplot(5,1,5)

plot(AM)

ylabel('Modified Amplitude')

xlabel('Time')

**Output:**

