**USMAN MARUF**

**3041120**

**COMPUTER ENGINEERING 4**

**3.0**

**a.** T = 1/4000;

tt = -T:0.000014:T;

tm1 = (37.2/10)\*T; tm2 = -(41.3/14)\*T;

**b.** A1 = 23; A2 = 1.2\*A1;

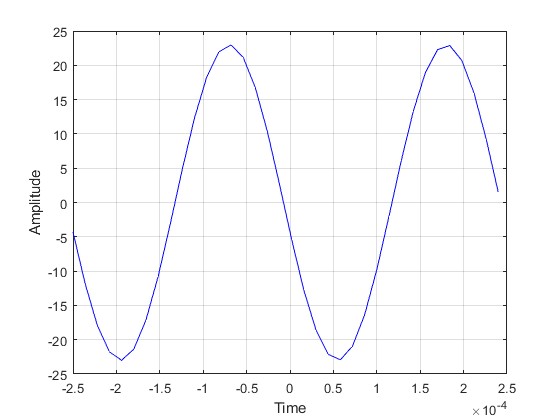
x1 = A1\*cos(2\*pi\*4000\*(tt-tm1));

x2 = A2\*cos(2\*pi\*4000\*(tt-tm2));

plot(tt, x1, 'b-'), grid on

xlabel("Time");

ylabel("Amplitude");

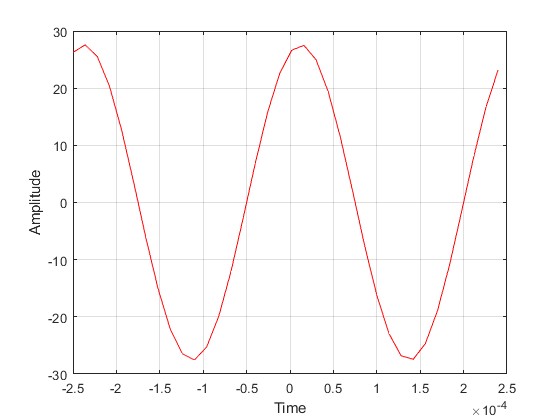


plot(tt, x2, 'r-'), grid on

xlabel("Time");

ylabel("Amplitude");

title('Second plot')



**c.** x3 = x1+x2;

plot(tt, x3, 'b-'), grid on

xlabel("Time");

ylabel("Amplitude");

title('Combined signal')

**d.** subplot(3,1,1);

plot(tt, x1, 'b-'), grid on

xlabel("Time");

ylabel("Amplitude");

title("First Plot");

subplot(3,1,2);

plot(tt, x1, 'b-'), grid on

xlabel("Time");

ylabel("Amplitude");

title("Second Plot");

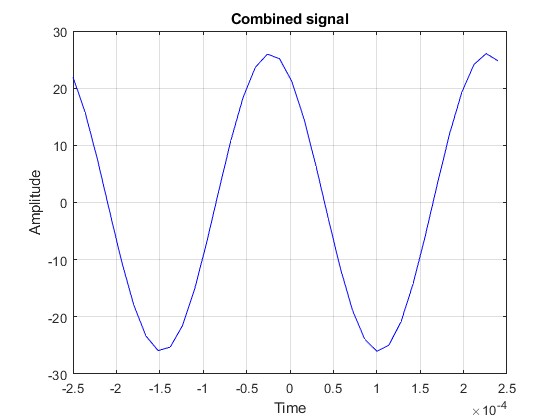
subplot(3,1,3);

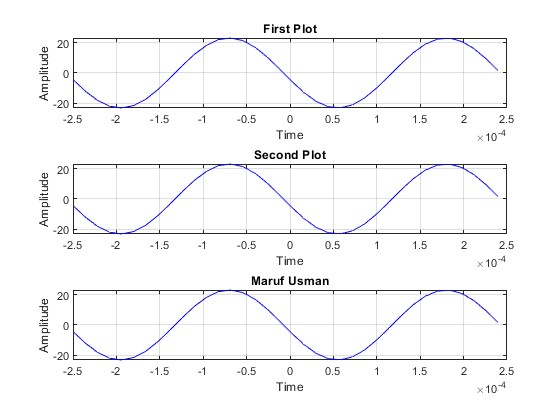
plot(tt, x1, 'b-'), grid on

xlabel("Time");

ylabel("Amplitude");

title("Maruf Usman");

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**3.1.** A1=21.9,A2=26.36,tm1=0.0093,tm2=0.00258,A3=5.796

**3.2.** temp = real(A1\*exp(j\*2\*pi\*4000\*-tm1)\*exp(j\*2\*pi\*4000\*tt));