

AMERICAN INTERNATIONAL UNIVERSITY BANGLADESH

Assignment Title:	Lab Report					
Assignment No:	1		Date of Submission:	03-02- 2022		
Course Title:	Data Comm	unication				
Course Code:	00408		Section: E			
Semester:	Spring	2021-22	Course Teacher:	Tanjil Amin		

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Figure List

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Figure 3: Problem-c	

Answer to the question no-(a)

```
Id: 19-41037-2
AB-CDEFG-H
t=0:0.001:2;
                                                                                                                                    k1=10;
                                                                  🛚 🖈 词 💹 📘 🕨 D: 🕨 MAtlab Nasim Reza 🕨 bin 🕨
k2=11;
                                                                                             No_1.m × No_2.m × No_3.m × No_4.m × Problem_1.m × +
i1=28*(pi/180);
                                                                                                 t=0.0 001.2:
                                                                                            1- t=0:0.001:2;

2- kl=10;

3- k2=11;

4- j1=28*(pi/180);

5- j2=30*(pi/180);

6- x1=kl*cos(2*pi*8

7- figure
j2=30*(pi/180);
x1=k1*cos(2*pi*8*t+j1);
                                                                   crash_analyzer.cfg
                                                                                                 x1=k1*cos(2*pi*8*t+i1);
figure
                                                                                             8 - plot(t,x1,'linewidth', 1);
9 - xlabel('Time (s)');
                                                                   Icdataxsd
plot(t,x1,'linewidth', 1);
                                                                                                vlabel('Amplitude');
xlabel('Time (s)');
                                                                                                 title('x1=k1*cos(2*pi*8*t+j1)');
                                                                  matlab ienv.bat
                                                                                                                                    File Edit View Insert Tools Desktop Window Help
ylabel('Amplitude');
                                                                                                 x2=k2*cos(2*pi*10*t+j2);
                                                                                           v 13 -
                                                                                                                                    title('x1=k1*cos(2*pi*8*t+j1)');
                                                                                                                                                    x2=k2*cos(2*pi*10*t+j2);
                                                                                                plot(t,x2,'linewidth', 1);
                                                                                                 xlabel('Time (s)');
                                                                                                 vlabel('Amplitude');
                                                                         Select a file to view details
x2=k2*cos(2*pi*10*t+j2);
figure
plot(t,x2,'linewidth', 1);
                                                                  >> Problem 1
xlabel('Time (s)');
                                                                  Problem_1
                                                                  >> Problem_1
ylabel('Amplitude');
title('x2=k2*cos(2*pi*10*t+j2);');
```

Figure 1: Problrm-a

Answer to the question no-(b)

```
t=0:0.001:2;
k1=10;
                                                                 Q Find ▼ Indent [] • [
k2=11;
j1=28*(pi/180);
j2=30*(pi/180);
                                                                                 t=0:0.001:2;
k1=10;
k2=11;
j1=28*(pi/180);
x1=k1*cos(2*pi*8*t+j1);
                                                                                                           j2=30*(pi/180);
x1=k1*cos(2*pi*8*t+j1);
x2=k2*cos(2*pi*10*t+j2);
x3=x1+x2;
                                                                                x2=k2*cos(2*pi*10*t+j2);
plot(t,x3,'linewidth',1);
                                                                                 plot(t,x3,'linewidth',1);
xlabel('Time (s)');
                                                                                 ylabel('Amplitude');
ylabel('Amplitude');
title('x1+x2');
                                                   >> Problem 1
                                                   Problem_1
>> Problem_1
>> Problem_2
                                                                                                                                    1.2 1.4 1.6 1.8
```

Figure 2: Problem-b

Answer to the question no-(c)

t=0:0.001:2; k1=10;k2=11;

i1=28*(pi/180);j2=30*(pi/180);

subplot(3,1,1);

x1=k1*cos(2*pi*8*t+j1);

plot(t,x1,'linewidth',1);

```
xlabel('Time (s)');
ylabel('Amplitude');
title('x1=k1*cos(2*pi*8*t+j1)');
x2=k2*cos(2*pi*10*t+j2);
subplot(3,1,2);
plot(t,x2,'linewidth',1);
xlabel('Time (s)');
ylabel('Amplitude');
title('x2=k2*cos(2*pi*10*t+j2);');
x3=k1*cos(2*pi*8*t+j1) + k2*cos(2*pi*10*t+j2);
subplot(3,1,3);
plot(t,x3,'linewidth',1);
xlabel('Time (s)');
ylabel('Amplitude');
plot(t,x3,'linewidth',1);
xlabel('Time (s)');
ylabel('Amplitude');
title('x1+x2');
       0 11
                                                                           Run Section

    Compare ▼

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  Current Folder
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    Name A
Capture-1.PNG
Capture-2.PNG
Capture-4.PNG
No_1.m
No_2.m
No_3.m
No_4.m
                                                 t=0:0.001:2;
                                                k1=10;
                                                                                              File Edit View Insert Tools Desktop Window Help
                                                j1=28*(pi/180);
j2=30*(pi/180);
                                                                                              🖺 🖨 🔚 🗳 😓 🖺 🖺
                                                subplot(3,1,1);
plot(t,x1,'linewidth',1);
                                                xlabel('Time (s)');
ylabel('Amplitude');
                                                title('x1=k1*cos(2*pi*8*t+j1)');
                                                x2=k2*cos(2*pi*10*t+j2);
                                                 subplot(3,1,2);
                                                plot(t,x2,'linewidth',1);
xlabel('Time (s)');
                                          15 -
                                          16 -
                                         17 -
18 -
                                                 ylabel('Amplitude');
                                                title('x2=k2*cos(2*pi*10*t+j2);');
                                          19
                                                x3=k1*cos(2*pi*8*t+j1) + k2*cos(2*pi*10*t+j2);
                                          20 -
                                                subplot(3,1,3);
  Details
                                          22 -
                                                plot(t,x3,'linewidth',1);
                                                xlabel('Time (s)');
                                          23 -
                                                ylabel('Amplitude');
                                          25 -
                                                 plot(t,x3,'linewidth',1);
                                                                                                                            Time (s)
             Select a file to view details
                                                xlabel('Time (s)');
                                                ylabel('Amplitude');
                                         28 -
                                                title('x1+x2');
```

Figure 3: Problem-c