**AMERICAN INTERNATIONALA close up of a sign

Description automatically generated**

**UNIVERSITY-BANGLADESH**

Choose an item.

**Lab Report**

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| Assignment Title: | Lab Report | | | |
| Assignment No: | 2 | | Date of Submission: | 9 February 2021 |
| Course Title: | Data Communication | | | |
| Course Code: | 00068 | | Section: | J |
| Semester: | Spring | 2020-21 | Course Teacher: | Md Mehedi Hasan |

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| **No** | **Name** | **ID** | | **Program** | | **Signature** | |
| 1 | Md.Yousuf Afendi | 19-39887-1 | | BSc [CSE] | |  | |
| ***Faculty use only*** | | | | | | |
| FACULTYCOMMENTS | | | **Marks Obtained** | |  | |
|  | | |  | |  | |
|  | | |  | |  | |
|  | | | **Total Marks** | |  | |
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Id:19-39887-1

x1(t) = A1 cos(2π(C\*100)t )

x2(t) = A2 cos(2π(F\*100)t)

x3(t) = x1(t) + x2(t)

AB-CDEFG-H

A=1, B=9, C=3, D=9, E=8, F=8, G=7, H=1

1. A1 = GD=79,

A2 = AF=18

b) fs = 10000;

t = -0.1:1/fs:0.01;

C=3;

F=8;

A1 = 79;

A2 = 18;

x1 = A1\*cos(2\*pi\*(C\*100)\*t); % First Signal

x2 = A2\*cos(2\*pi\*(F\*100)\*t); % Second Signal

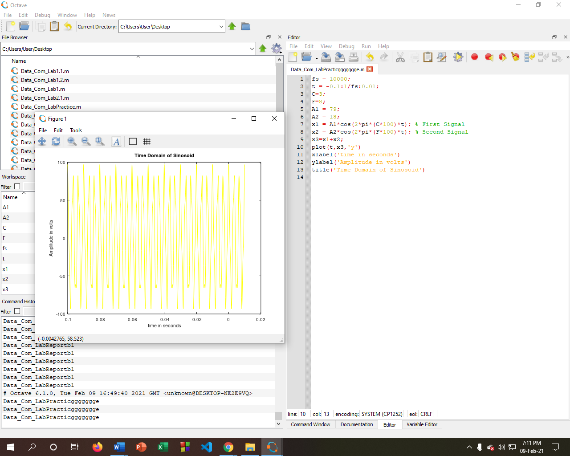
x3=x1+x2;

plot(t,x3,'y')

xlabel('time in seconds')

ylabel('Amplitude in volts')

title('Time Domain of Sinosoid')



c) fs = 1000;

t = 0:1/fs:1-1/fs;

C=3;

F=8;

A1 = 79;

A2 = 18;

x1 = A1\*cos(2\*pi\*(C\*100)\*t); % First Signal

x2 = A2\*cos(2\*pi\*(F\*100)\*t); % Second Signal

x3=x1+x2;

fx1=fft(x3);

fx1=fftshift(fx1)/(fs/2);

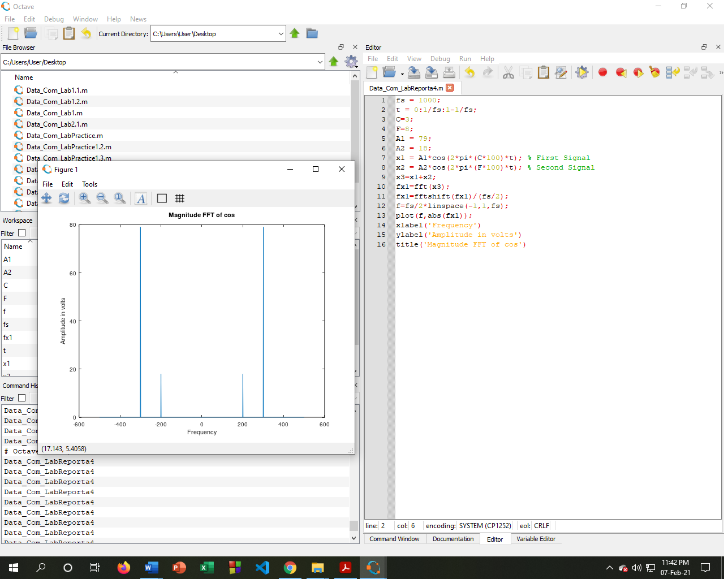
f=fs/2\*linspace(-1,1,fs);

plot(f,abs(fx1));

xlabel('Frequency')

ylabel('Amplitude in volts')

title('Magnitude FFT of cos')



fs = 1000;t = 0:1/fs:1-1/fs; C=3;F=8;A1 = 79;A2 = 18;x1 = A1\*cos(2\*pi\*(3\*100)\*t); % First Signalx2 = A2\*cos(2\*pi\*(8\*100)\*t); % Second Signalx3=x1+x2;bandwidth=800-300

