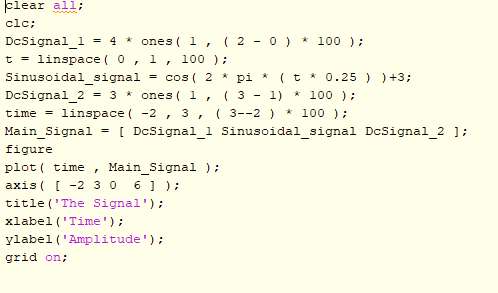
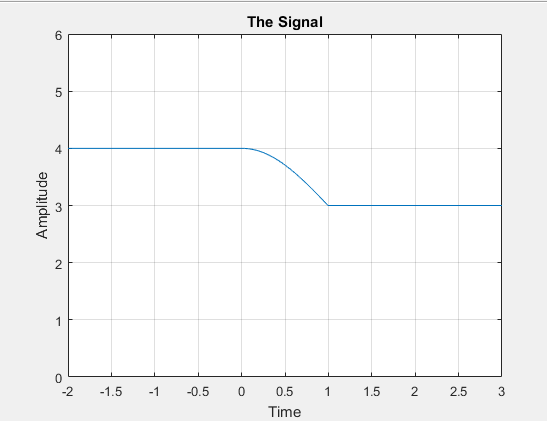
|  |  |
| --- | --- |
| **العربية** | Electrical Engineering Department (EEC 271) Signals&Systems  Spring 2022 - 2023 |

Lab(2) report

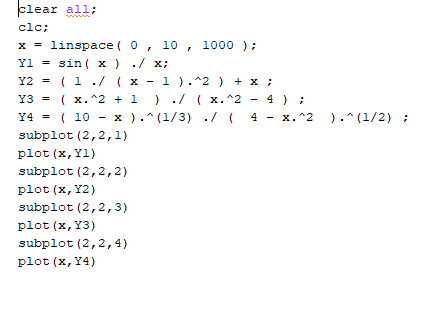
|  |  |
| --- | --- |
| **Name** | **ID** |
| Mostafa Mohamed Abdel-Azeem Hassanen  Ahmed Abdel-Hakem Abdel-Salam Ali | 20011950  20010124 |
|  |  |
| **Section:** | 4 |
|  |  |
| **Department:** | **Electronics and Communication** |

Task1

**Code**  **Result**



Task2

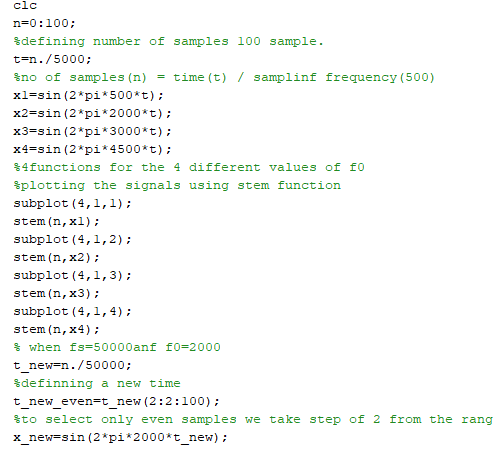
**Code Result**

A picture containing text, diagram, line, plot

Description automatically generated

Task3

A picture containing text, font, number, parallel

Description automatically generated**Code** **Result**

A screen shot of a computer

Description automatically generated with low confidence

A picture containing text, diagram, line, parallel

Description automatically generated

# **First comment**

# Similarities Differences

They have the same amplitude. Different number of samples.

They are all periodic Different accuracy due to samples .number.

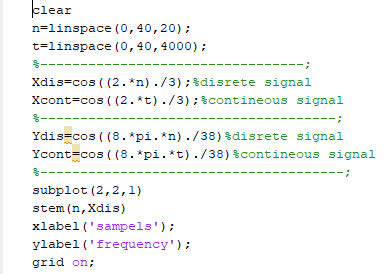
# **Second comment**

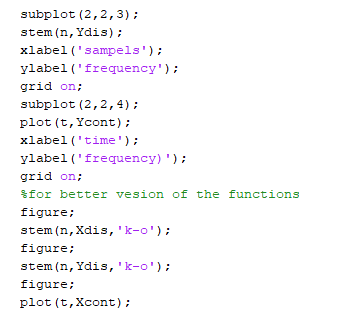
1-frequency of x(n)= 1/25 =0.04

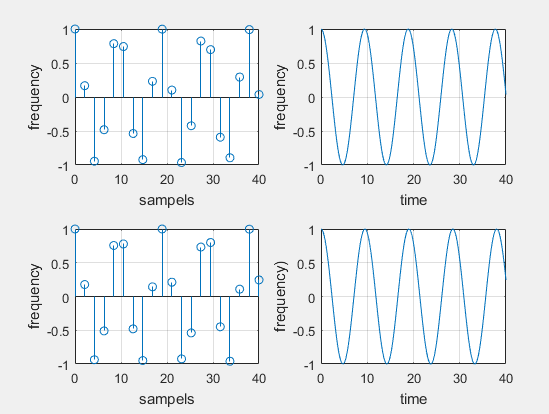
2-y(n) is periodic with frequency =2/25 =0.08

Task4

**Code**

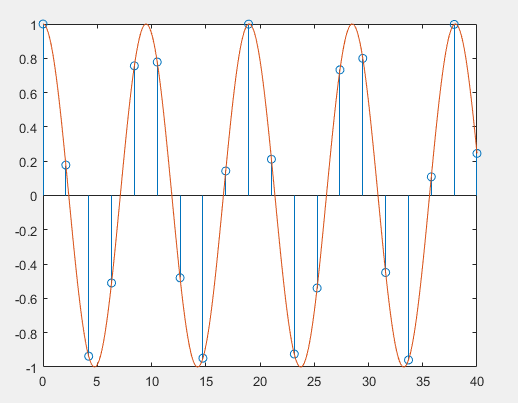
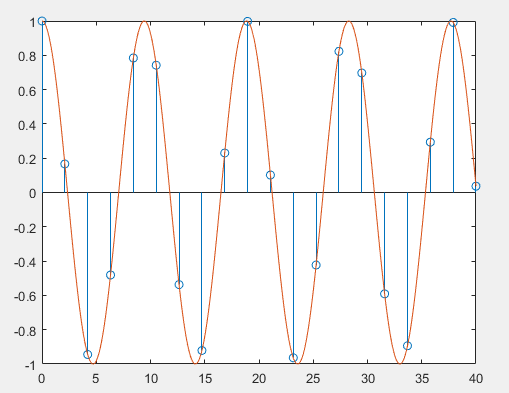




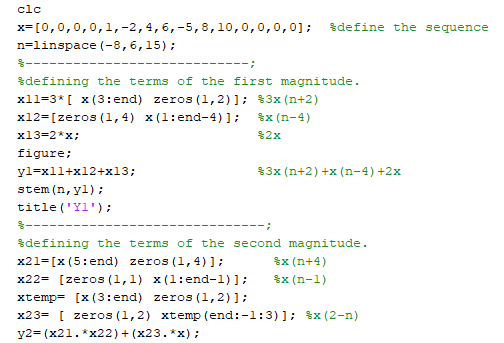
**Result**

# **Comment:**

* The sequences are **periodic**
* In one period for the continuous signals it
* Makes 1cycle every 10 seconds

****

Task5

Code Result

A picture containing text, diagram, line, plot

Description automatically generated

A picture containing text, diagram, line, plot

Description automatically generated

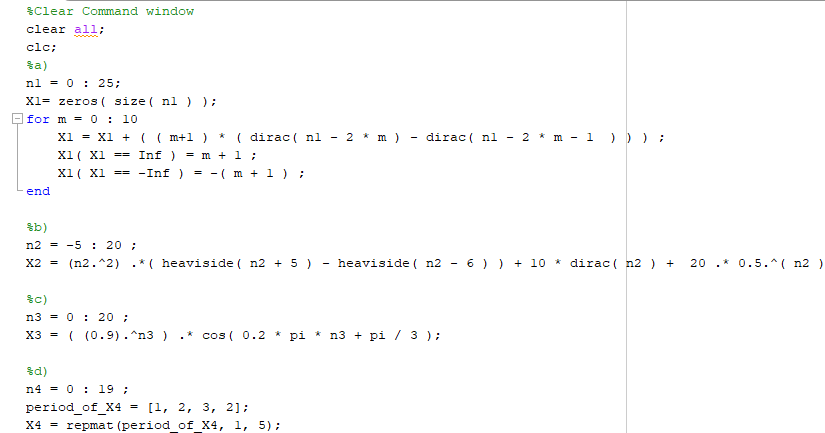
A picture containing text, screenshot, font

Description automatically generated

A picture containing text, line, diagram, plot

Description automatically generated

Task6

**Code** **Result**

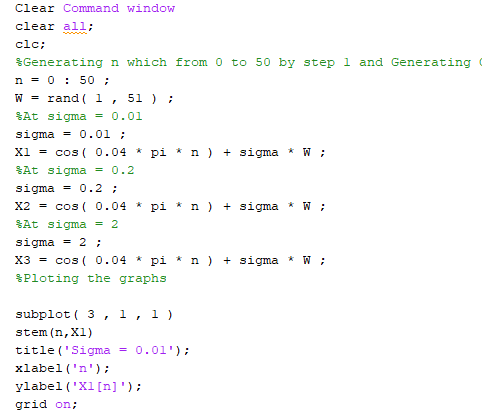
A picture containing text, diagram, line, parallel

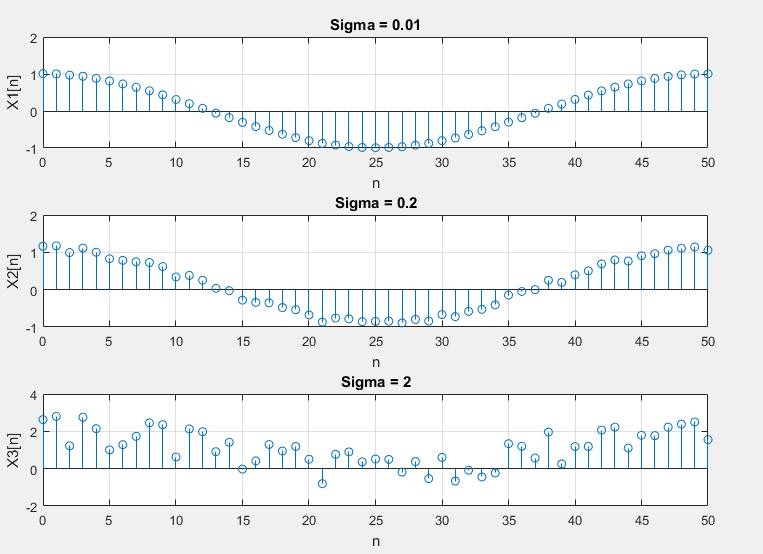
Description automatically generated

A screenshot of a computer code

Description automatically generated with medium confidence

Task7

**Code**  **Result**



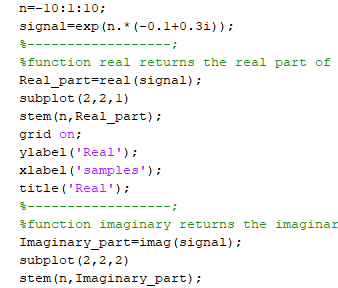
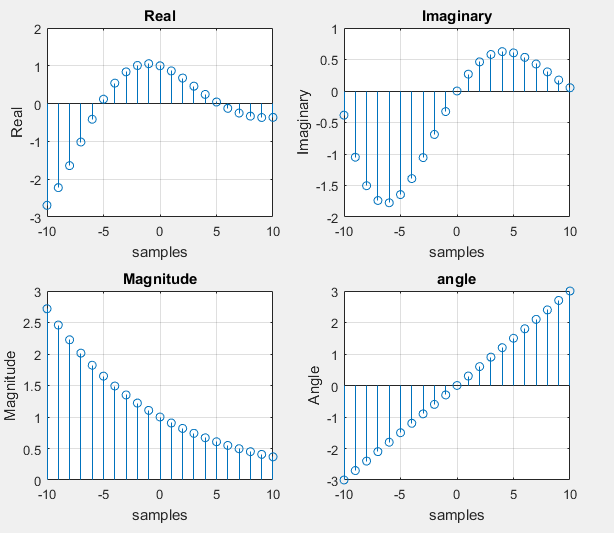
A picture containing text, screenshot, font

Description automatically generated

# **comment**

Here w[n] represent a noise is introduced to our main signal which is the cosine function We use randn command to generate an array of random numbers to represent our noise and at every trail these random numbers are changed. we multiply this array by a sigma , first when sigma was a small value ( ) the noise was having little effect on the main function as in the first graph when sigma increased ( ) the effect of distorting the signal starts to appear as in the second graph, but the signal is not totally changed as in case three when sigma is greater than 1 ( ) in this case our original signal is totally affected and changed by the noise as in the third graph.

Task8

**Code** **Result**

