SCS2211 - LABORATORY II
Octave Lab Practical Sheet - 06

Instructions

- **Do the tasks given in the practical sheet and take screenshots of the outputs**
- **Create a folder and include the files related to each question inside it.**
- **Convert the folder into a compressed file.**
- **Rename the compressed file with your index number (Eg: 2000000.pdf)**
- **Any form of plagiarism or collusion is not allowed**
- **upload the document to the submission link.**

1. Type the following 2 programs as separate .m files, correct any errors you can find in them and run them.

```
x=linspace( -10 ,10 ,50) ;

y=linspace( -10 ,10 ,50) ;

[xx, yy]=meshgrid(x , y) ;

meshc( xx , yy ,2 - (xx.^2+yy . ^ 2 ) )
```

Program 01

```
a = b = linspace (-8 , 8 , 10)';

[ xx , yy ] = meshgrid (a , b) ;

c = sqrt (xx . ^ 2 + yy . ^ 2) + eps ;

d = sin (c) . / c ;

surf ( c , d) ;
```

Program 02

Save the outputs of both the above programs as .png files **named as <<01_IndexNumber>>**.

(Use either the Octave Command line **or** the IDE as applicable for the following.)

2. Write a program to print your Full Name and Index number 70 times, using a while loop. Save (copy-paste) that program into a text/notepad file **named as <<02_IndexNumber>>.txt**

3. Write a program to print the Full Name of the school where you did you're A-Levels 100 times, using a do-until loop. Save (copy-paste) that program into a text/notepad file **named as <<yourFullName&IndexNumber>>.txt**

4. Write a program to print the square of the 1st 7 even numbers using a for loop and save (copy-paste) that program into a text/notepad file **named as <<yourFullName&IndexNumber>>.txt** and upload to the LMS.

5. Write a program to find out whether the number 133 is divisible by 7. If not divisible, then the program should be able to print '133 is NOT divisible by 7'. If divisible, then the program should print '133 IS divisible by 7'. Use can use the if-elseif-else control structure for this program. Finally, copy-paste that program into a text/notepad file **named as <<yourFullName&IndexNumber>>.txt** and upload to the LMS.

6. Design a **sign curve**, save it as a .png file, and name that file as **<<yourFullName&IndexNumber>>.png**. Now upload this graphic file to the LMS.

7. Design a **perfect circle**, of any radius you like ("as long as it is contained within the screen") save it as a .png file, and name that file as **<<yourFullName&IndexNumber>>.png**. Now upload this graphic file to the LMS.