

Practical 3

The screenshot shows a MATLAB/Simulink workspace with a script named `pract3.sce` and a console window displaying the output of the script.

Script Content:

```
1 clc;
2 disp('Neeraj Appari T073');
3 M=[22,27,3,62];
4 b=[15,67,2,0];
5
6 X = fft(M);
7 B = fft(b);
8 Y=X.*B;
9
10 g = conv2(X,b);
11 Y = ifft(Y);
12
13 disp('linear conversion :');
14 disp('circular conversion :',Y);
15
```

Console Output:

```
"Neeraj Appari T073"
"linear conversion : "
330.    162.    12.
1629.   968.   268.
216.    3048.   336.
"circualr conversion : "
894.    3210.
1897.   968.
-->
```

Variable Browser:

Na...	Va...	Type	Vis...	M...
H	[10...]	Dou...	local	240 B
X	[69...]	Dou...	local	240 B
Y	[6.9...]	Dou...	local	240 B
ans	1x1 Gra...	local		216 B
g	3x3 Dou...	local		280 B
h	[15...]	Dou...	local	240 B
i	1x201 Dou...	local		1.6 KB

Command History:

Command	Time
--	28/03/2022 14:44:17
--	28/03/2022 14:44:17
--	29/03/2022 09:30:56
--	30/03/2022 11:36:34
--	30/03/2022 22:24:26
--	02/04/2022 18:27:37
--	05/04/2022 12:09:23
--	05/04/2022 20:22:00
--	05/04/2022 20:51:36
--	06/04/2022 01:06:49

News feed:

News feed unavailable.

Practical 4

The screenshot shows a MATLAB/Simulink workspace with a script named 'pract4.sce' and a console window displaying the results of the execution. The script performs various operations on a 2D matrix 'x' and a 2D matrix 'y'.

Script Content (pract4.sce):

```
1 clc;
2 disp('Meeraj Appari T0732')
3
4 x=[12,5,25,0];
5
6 h1=[16,1,1,6];
7 h2=h1([5,-1:1,1]);
8 h=h2([5,-1:1,1]);
9 y=conv2(x,h)
10
11 disp('linear cross relation of a 2d matrix :',y)
12
13
14 b=h([5,-1:1,1]);
15 h=h([5,-1:1,1]);
16 X=fft2(x);
17 B=fft2(h);
18 Y=X.*B;
19 y = ifft2(Y);
20
21 disp('Circular correlation between two signal:',y)
22
23
24 x2=x([5,-1:1,1]);
25 x2=x2([5,-1:1,1]);
26 C=conv2(x,x2)
27 disp('Linear auto correlation -of a 2d matrix :',C)
28
29
30 h2=h([5,-1:1,1]);
31 h3=h2([5,-1:1,1]);
32 y=conv2(x,h3)
33 disp('linear cross correlation of a 2d matrix :',y)
34
```

Console Output:

```
"Meeraj Appari T0732"

"linear cross relation of a 2d matrix :"
```

72.	196.	65.
186.	556.	174.
75.	374.	112.

```
"Circular correlation between two signal:"
```

556.	360.
560.	324.

```
"Linear auto correlation of a 2d matrix :"
```

96.	340.	125.
260.	858.	260.
125.	340.	96.

```
"linear cross correlation of a 2d matrix "
```

72.	196.	65.
186.	556.	174.
75.	374.	112.

Variable Browser:

Na...	Val...	Type	Vis...	M...
C	3x3 Dou...	local		280 B
H	36...	Dou...	local	240 B
X	36...	Dou...	local	240 B
Y	1.8...	Dou...	local	240 B
ans	1 Dou...	local		216 B
g	3x3 Dou...	local		280 B
h	14...	Dou...	local	240 B

Command History:

Command	Time
-- 28/03/2022 14:44:17 --	
-- 28/03/2022 14:44:17 --	
-- 29/03/2022 09:30:56 --	
-- 30/03/2022 11:36:34 --	
-- 30/03/2022 22:24:26 --	
-- 02/04/2022 18:27:37 --	
-- 05/04/2022 12:05:23 --	
-- 05/04/2022 20:22:00 --	
-- 05/04/2022 20:51:36 --	
-- 06/04/2022 01:06:49 --	

News feed:

News feed unavailable.

Practical 5

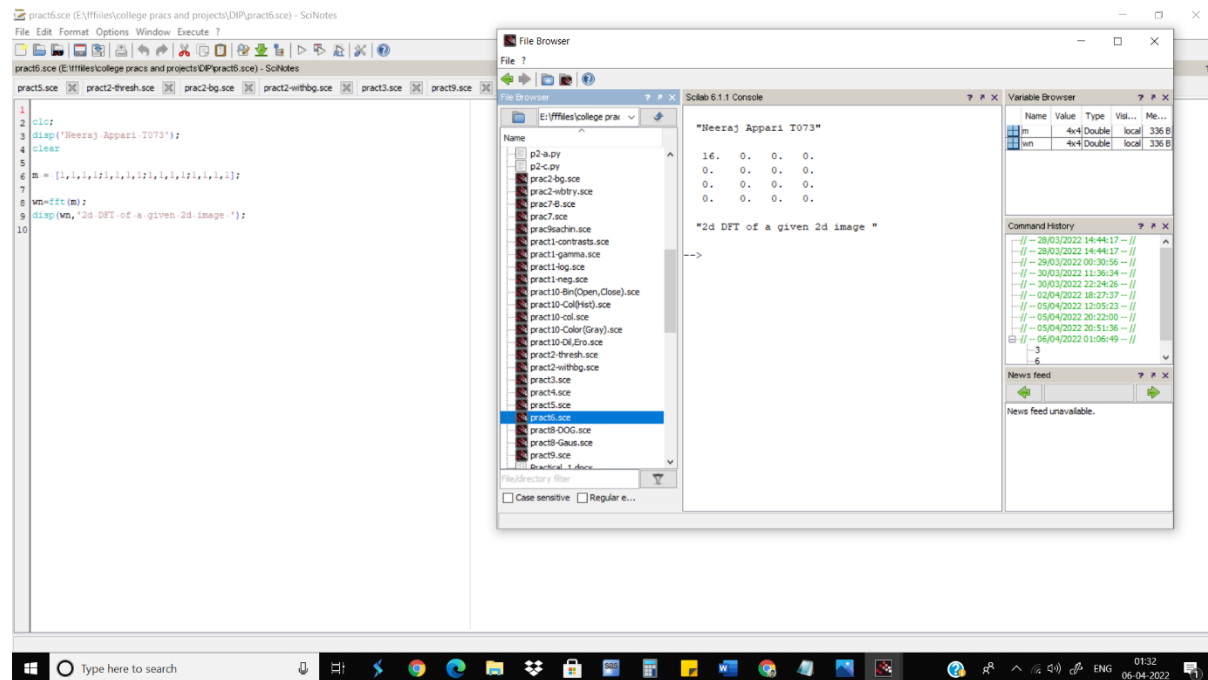
The screenshot displays the MATLAB environment with the following components:

- Script Editor:** Contains a MATLAB script for image processing. The script defines a function `pract5` that takes an input image `h` and processes it using various filters and convolutions. The script includes comments and display statements for the results.
- File Browser:** Shows the file structure of the project, including subfolders like `p2-a.py`, `p2-c.py`, and `p2-d.py`. The file `pract5.sce` is selected.
- Console:** Displays the output of the script, showing the results of the linear and circular convolutions. The output is formatted as a table with columns for the input image, the filter, and the resulting image.
- Variable Browser:** Shows the variables defined in the script, including `h`, `ans`, `g`, and `h`. The variables are listed with their names, values, types, and sizes.

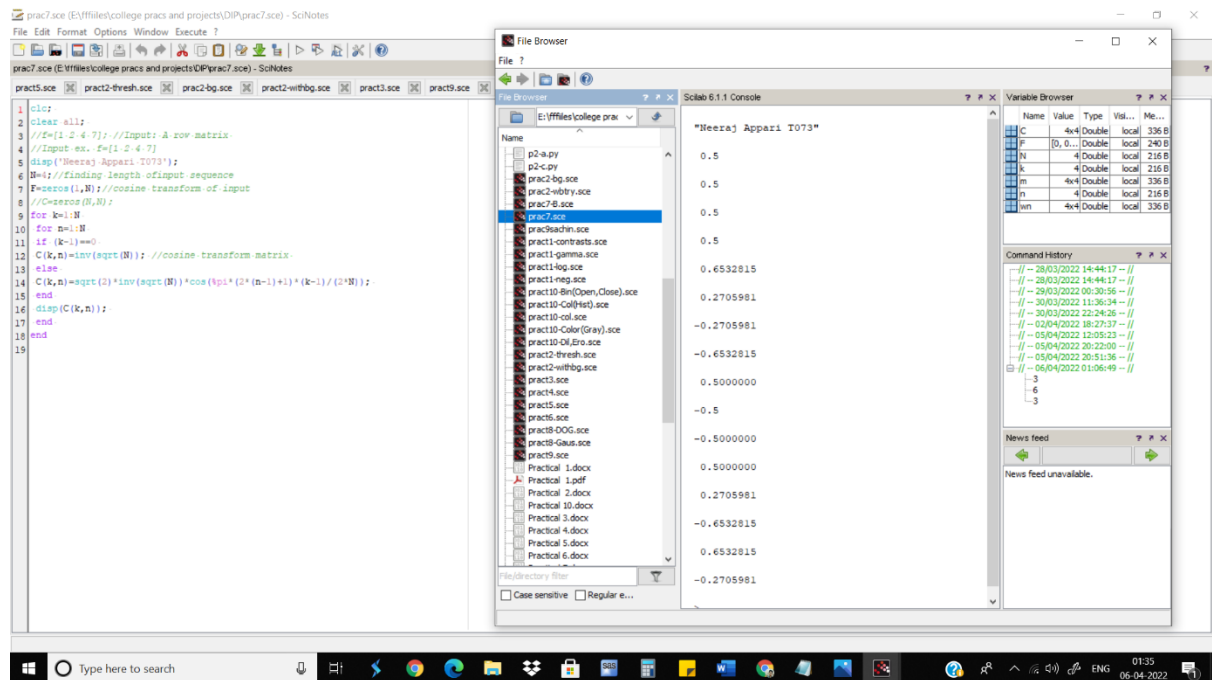
The script in the editor is as follows:

```
1 clc;
2 disp('Meeraj Appari T073');
3 h=[1,2,3,4];
4 b=[5,6,7,8];
5
6 g = conv2(h,b);
7 y1=[y1(i,:),y1(i,:),y1(i,:),y1(i,:)];
8 y2=[y1(i,:),y1(i,:),y1(i,:),y1(i,:)];
9
10 disp('linear convolution :',y1);
11 disp('circular convolution expressed as linear convuasion plus alias :',y2);
12
```

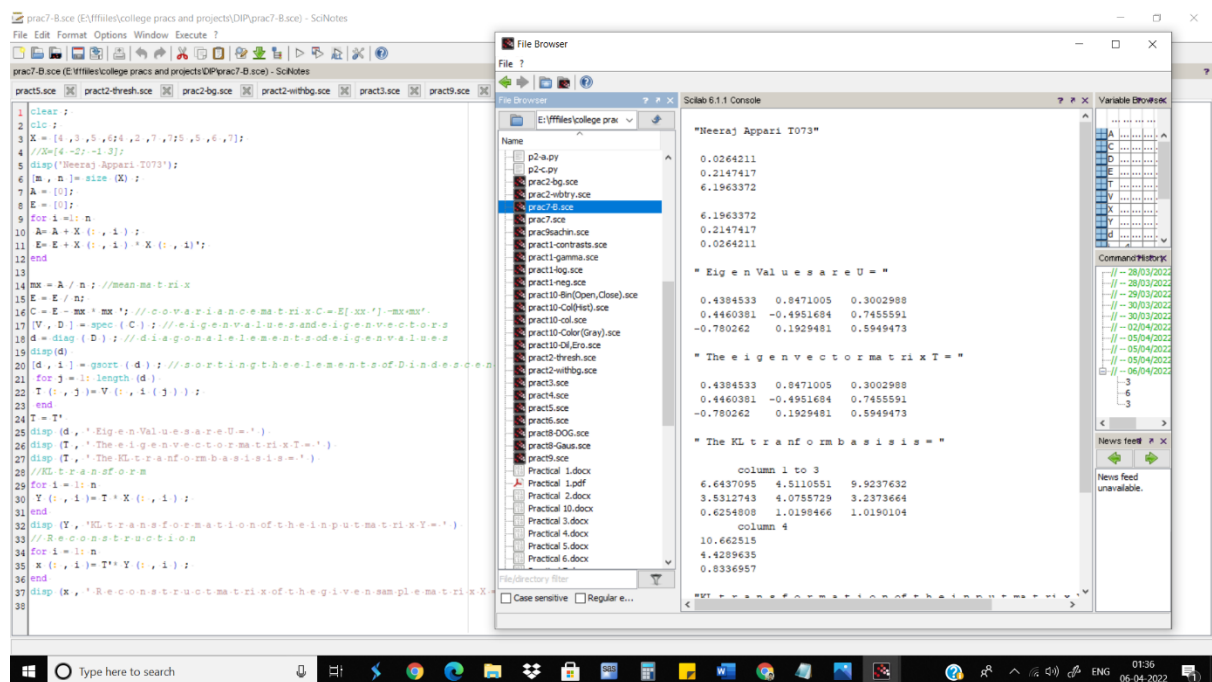
Practical 6



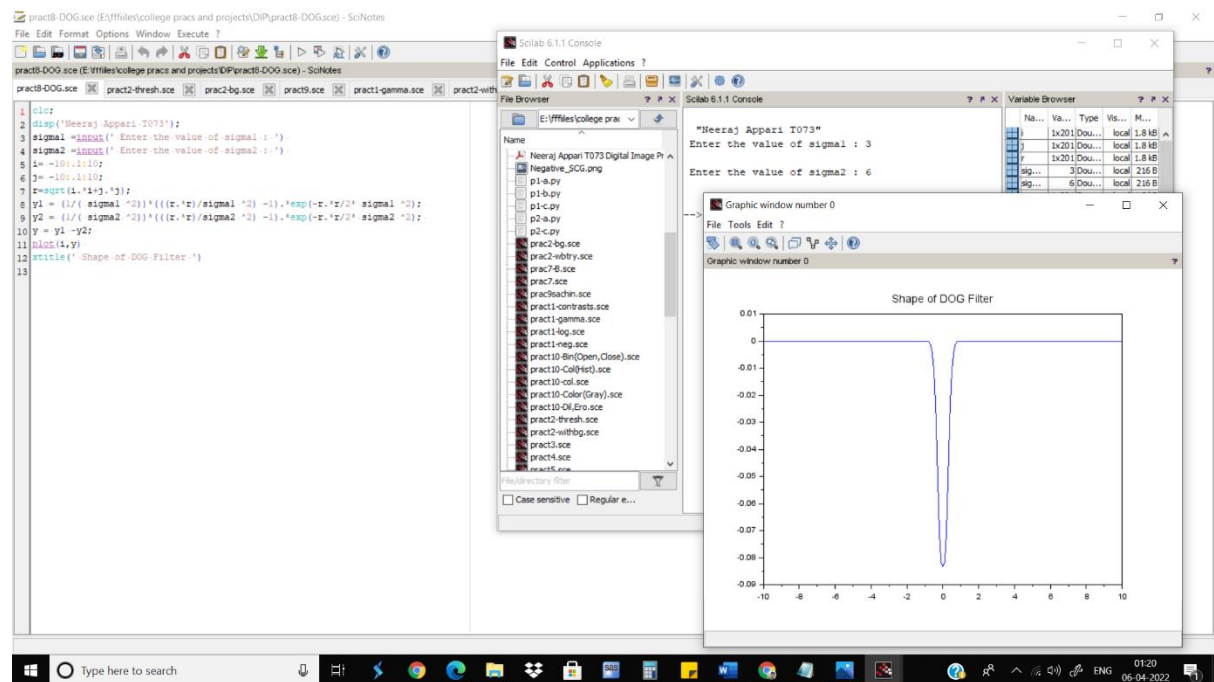
Practical 7-A



Practical 7-B



Practical 8-A



Practical 8-B

