

Q 1A)

The MATLAB R2020a interface is shown with the Editor, Workspace, and Command Window. The Editor displays a script for Q1A, and the Command Window shows the output of the script.

Editor:

```

1 - clear all
2 - clc
3 - syms t
4 - f=input('Enter the function in terms of t: ');
5 - F=laplace(f);
6 - disp('Laplace transform of f(t) = ');
7 - disp(F);
8

```

Workspace:

Name	Value	Size	Class
F	1×1 sym	1×1	sym
f	1×1 sym	1×1	sym
t	1×1 sym	1×1	sym

Command Window:

```

New to MATLAB? See resources for Getting Started.

Enter the function in terms of t:
exp(-t)*t*cos(5*t)
Laplace transform of f(t) =
((2*s + 2)*(s + 1))/((s + 1)^2 + 25)^2 - 1/((s + 1)^2 + 25)

>>

```

Q 1B)

The MATLAB R2020a interface is shown with the Editor, Workspace, and Command Window. The Editor displays a script for Q1B, and the Command Window shows the output of the script.

Editor:

```

1 - clear all
2 - clc
3 - syms s
4 - F=input('Enter the function in terms of s: ');
5 - f=ilaplace(F);
6 - disp('Inverse Laplace transform of F(s) = ');
7 - disp(f);
8

```

Workspace:

Name	Value	Size	Class
F	1×1 sym	1×1	sym
f	1×1 sym	1×1	sym
s	1×1 sym	1×1	sym

Command Window:

```

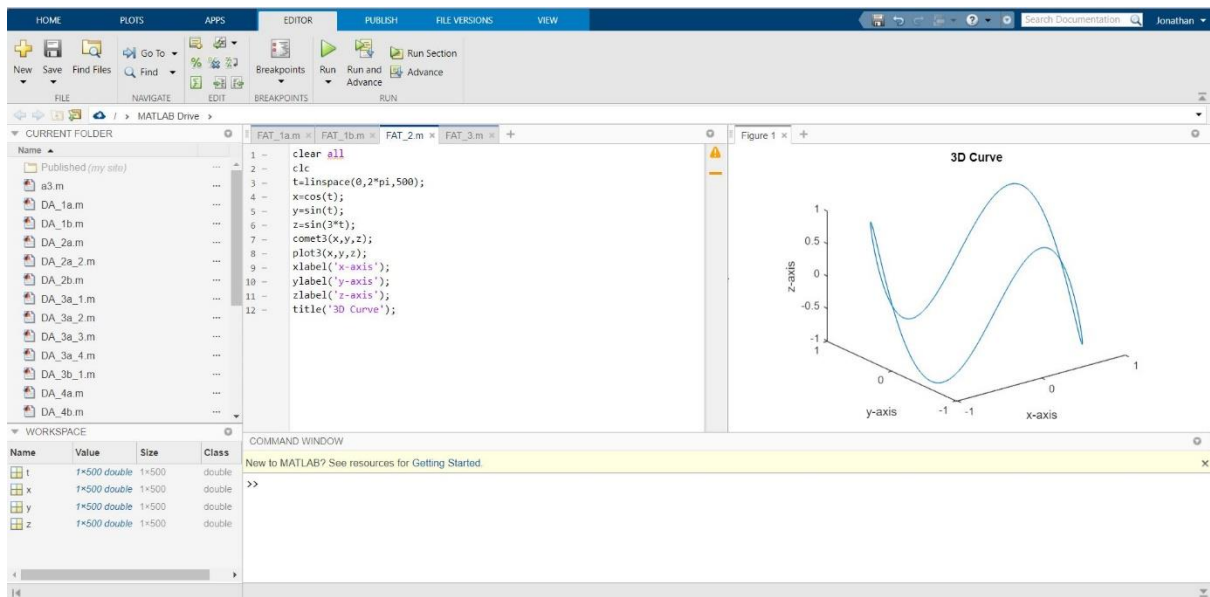
New to MATLAB? See resources for Getting Started.

Enter the function in terms of s:
1/((s^3)*((s-1)^2)*((s^2)+4))
Inverse Laplace transform of F(s) =
t/2 - (3*cos(2*t))/400 - sin(2*t)/100 - (17*exp(t))/25 + (t*exp(t))/5 + t^2/8 + 11/16

>>

```

Q2)



Q3 Viva)

