NAME : PRATHAPANI SATWIKA

REG.NO : 20BCD7160

EXPERIMENT NO. 3 -APPLICATIONS TO INTEGRAL CALCULUS

1.

```
1 -   clc
2 -   clear all
3 -   syms x y
4 -   fprintf('20BCD7160 Prathapani Satwika')
5 -   int(int(3-x-y,x,y,1),y,0,1)
```

Command Window

```
20BCD7160 Prathapani Satwika
ans =

    1

fx >>
```

2.

```
clc
clear all
syms x y z
fprintf('20BCD7160 Prathapani Satwika')
int(int(int(1,z,(x^2)+3*(y^2),8-(x^2)-(y^2)),...
    x,-sqrt(4-2*(y^2)),sqrt(4-2*(y^2))),y,-sqrt(2),sqrt(2))
```

Command Window

```
20BCD7160 Prathapani Satwika
ans =

8*pi*2^(1/2)

fx >>
```

3.

```
clc
clear all
syms x y z xyz
fprintf('20BCD7160 Prathapani Satwika')
vol=int(int(int(1,z,0,2),y,0,2),x,0,2)
avg=(1/vol)*int(int(int(x*y*z,z,0,2),y,0,2),x,0,2)
```

Command Window

```
20BCD7160 Prathapani Satwika
vol =

8


avg =

1

fx >>
```