SEM-6-PRACTICALS-DIGITAL IMAGE PROCESSING

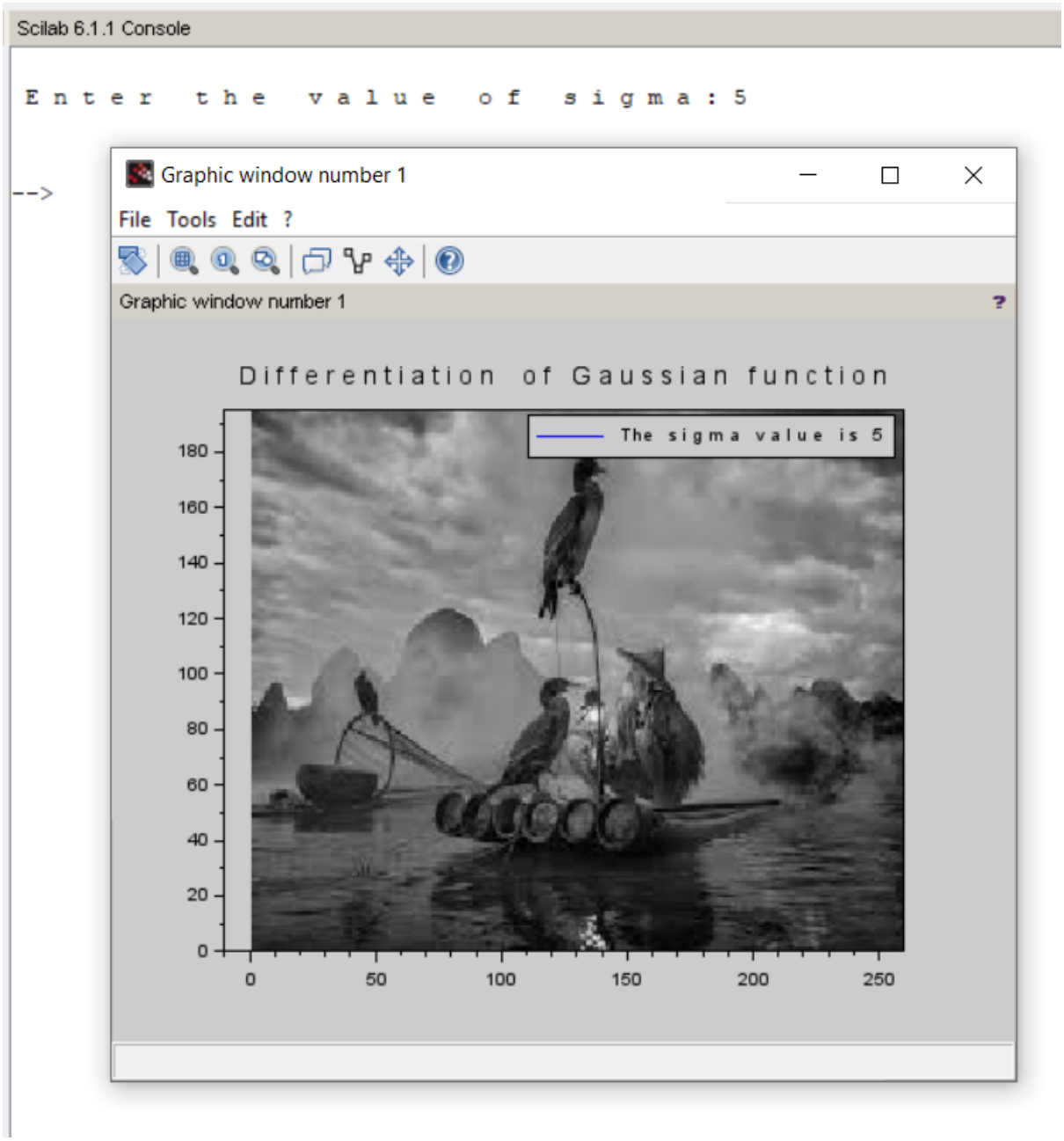
Image Segmentation

A. Differentiation of Gaussian function.

Code:-

```
//Differentiation of Gaussian function
clc;
close;
sigma=input(' E n t e r  t h e  v a l u e  o f  s i g m a : ')
i= -10:.1:10;
j= -10:.1:10;
r=sqrt(i.*i+j.*j);
y=(1/( sigma ^2))*(((r.*r)/sigma ^2) -1).*exp(-r.*r/2*sigma ^2);
plot(i,y)
legend(sprintf(' The  s i g m a  v a l u e  i s  %g ',sigma))
xtitle(' D i f f e r e n t i a t i o n  o f  G a u s s i a n  f u n
```

Output:-



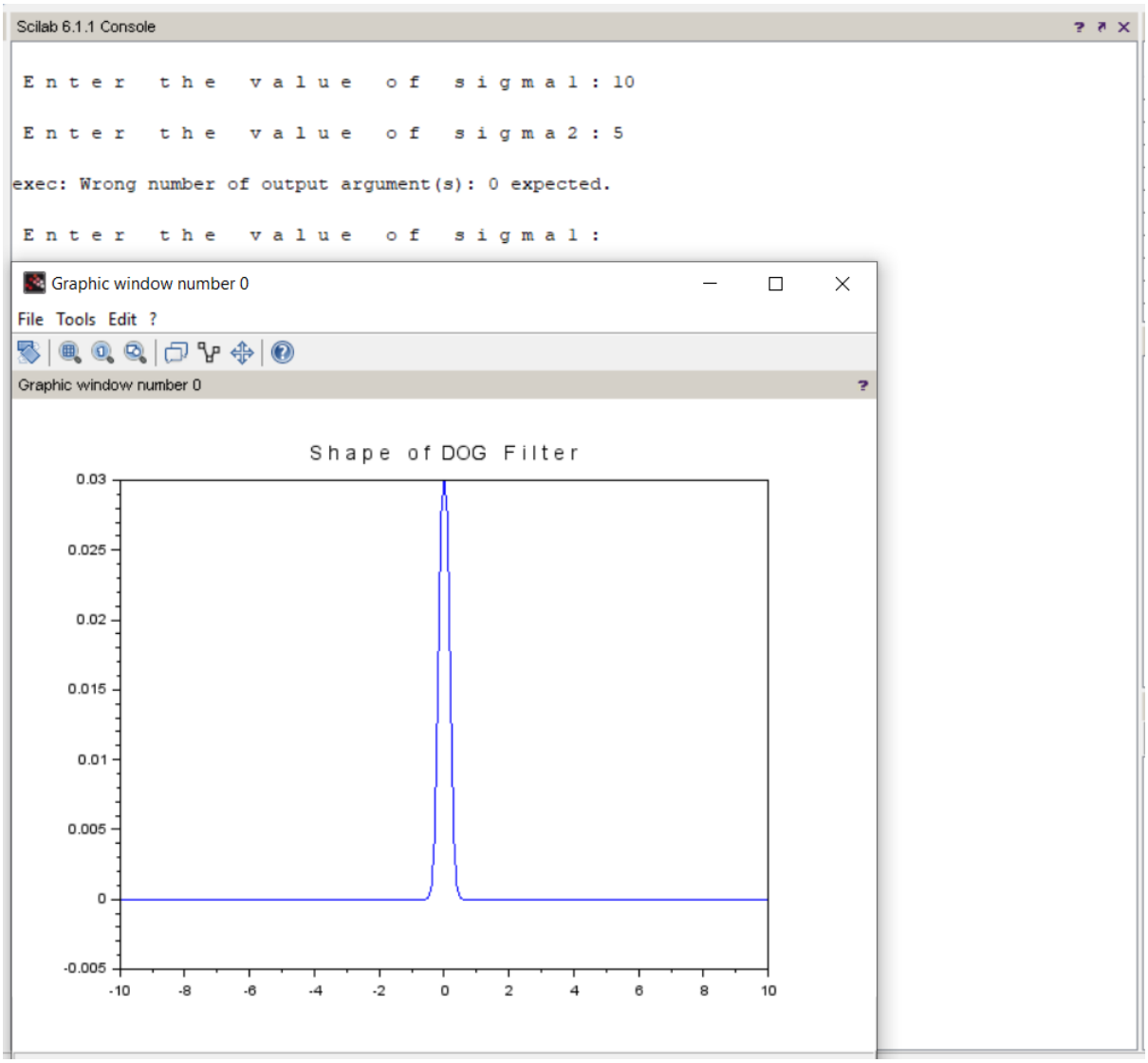
B. Shape of Dog Filter.

Code:-

```
/// Shape Of DOG Filter
clc;
close;
sigma1 =input(' E n t e r  t h e  v a l u e  o f  s i g m a 1 : ')
sigma2 =input(' E n t e r  t h e  v a l u e  o f  s i g m a 2 : ')
i= -10:.1:10;
j= -10:.1:10;
r=sqrt(i.*i+j.*j);
y1 = (1/( sigma1 ^2))*(((r.*r)/sigma1 ^2) -1).*exp(-r.*r/2* sigma1 ^2);
y2 = (1/( sigma2 ^2))*(((r.*r)/sigma2 ^2) -1).*exp(-r.*r/2* sigma2 ^2);
y = y1 -y2;
```

```
plot(i,y)
xtitle(' S h a p e   o f  DOG   F i l t e r  ')
```

Output:-



← PREVIOUS

Practical 7

NEXT →

Practical 9

Practical 1

About Us

Welcome to Pyhill Education we will offer interactive python courses. Learn from a team of Pyhill with videos lessons and fun

Great Quotes

-> "The best way to predict the future is to create it."

-> To err is human, but to really foul things up you need a computer.

->

Quick links

Home

BLOG

MUMBAI-UNIVERSITY

AMAZON OFFERS

ABOUT US

Search

Follow us

coding challenges and projects. we will also provide Mumbai university computer science BSc-Cs and MSc-Cs Notes and Practicals. Pyhill Education.

"Imagination is more important than knowledge."