**Practical : 6**

**Code :**

#include<stdio.h>

#include<math.h>

#include<stdlib.h>

float x;

float func1(float x)

{

return(5\*x+pow(x,2));

}

float func2(float x)

{

return(6\*pow(x,4)-2\*pow(x,3)+x-1);

}

float func3(float x)

{

return(x\*exp(pow(x,2)));

}

main()

{

float h=0.00001;

float d1,d2,d3;

float x1=2,x2=3,x3=1;

d1=(func1(x1+h)-func1(x1))/h;

d2=(func2(x2+h)-func2(x2))/h;

d3=(func3(x3+h)-func3(x3))/h;

printf("Derivatives will be as follows : \n d1 = %f\n d2 = %f\n d3 = %f",d1,d2,d3);

}

**OUTPUT :**

