**SCILAB ASSIGNMENT NO.1**

**REGULAR FALSI**

**ANIKET BOTE D2C ROLL NO.09**

**Program:**

1) x3-2x+0.5 = 0 lying between 0 and 1

**PROGRAM**

clc;

deff('[y]=f(x)','y = x^3-2\*x+0.5');

x0=0;

x=1;

i=1;

error = 0.000001;

disp('x0=')

disp(x0)

disp('x=')

disp(x)

disp('By Regular Falsi Method')

while(abs(x-x0) >=error)

y=[(x0\*f(x)-x\*f(x0))/f(x)-f(x0)];

disp([i,y])

if(f(y)\*f(x0)<0)

x0 = y;

else

x=y;

end

i = i+1;

end;

disp ('no of iterations')

disp(i)

**OUTPUT**

x0 =

1

x =

0

By Regular Falsi Method

1. 0.5

2. 0

3. 0.33333333

4. 0.2857143

5. 0.2941176

6. 0.2926829

7. 0.2929293

8. 0.2928870

9. 0.2928943

10. 0.2928930

11. 0.2928933

12. 0.2928932

no of iterations=12