# F.Y.B.TECH. / SEM - I / ENGINEERING MATHEMATICS - I / SCILAB PRACTICAL / AY: 2020-21

NAME OF EXERCISE: Newton Raphson Method

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**BRANCH**: Computer Science **DIV**: J **DATE**: 05-04-2021

### **QUESTION:**

Find the root of the equation  $f(x) = x \cdot 5 - x \cdot 2 - 3 = 0$  by using Newton Raphson Method

### **CODE:**

```
deff("[y] = f(x)", "y = x^5 - x^2 - 3")
deff("[y] = fd(x)", "y = 5*x^4 - 2*x")
x = 1
xx = 0
i = 0
eps = 0.001
while(abs(x-xx)>eps)
r = x - (f(x)/fd(x))
disp(r)
xx = x
x = r
i = i + 1
end
disp("No. of iteration = ", i)
disp("Root of the equation = ", x)
```

#### **OUTPUT:**

2. 1.6

1.6710526

1.4680060

1.3860401

1.3736504

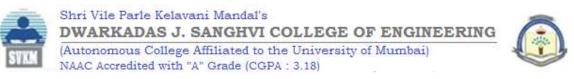
1.3733915

"No. of iteration = "

6

"Root of the equation = "

1.3733915



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