

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

NAME OF EXERCISE: Regula Falsi Method

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BRANCH: Computer Science **DIV**: J **DATE**: 03-04-2021

QUESTION:

Find the root of the equation f(x) = xe - 3 = 0 by using Regula Falsi Method.

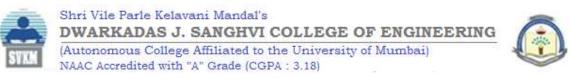
CODE:

```
deff("[y] = f(x)", "y = x*exp(x) - 3")
a = 1
b = 1.5
c = 0
c1 = 1
i = 0
eps = 0.0001
while (abs(c-c1)>eps)
r = (a*f(b)-b*f(a))/(f(b)-f(a))
if (f(a)*f(c)<0)
b = r
end
if (f(b)*f(c)<0)
a = r
end
c1 = c
c = r
i = i + 1
disp(c)
end
disp("No. of iterations = ", i)
disp("Root = ", c)
```

OUTPUT:

1.0351774 1.0455958 1.0486491 1.0495412 1.0498016 1.0498776 no. of iterations 6.

Root = 1.0498776



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