



Shri Vile Parle Kelavani Mandal's

DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING

(Autonomous College Affiliated to the University of Mumbai)

NAAC Accredited with "A" Grade (CGPA : 3.18)



ENGINEERING MATHEMATICS-II SCILAB PRACTICAL

ACADEMIC YEAR: 2020-21

NAME of EXERCISE: Numerical Integration (Trapezoidal Rule)

NAME: Ayush Jain

SAP ID:60004200132

BRANCH: Computer Engineering

DIV: J1

DATE: 19/07/2021

QUESTION: Evaluate $\int_{0.2}^{1.4} \cos x - \log x + e^x dx$ using scilab function & using trapezoidal rule.

CODE:

```
deff('y=f(x)', 'y=(cos(x)-log(x)+exp(x))')
I1=intg(0.2,1.4,f)
disp('Exact value of integration using scilab inbuilt function is',I1)
x=0.2:0.0001:1.4
g=(cos(x)-log(x)+exp(x))
n=length(x)
s=0
for i=2:n-1
    s=s+g(i)
end
I2=(0.0001/2)*(g(1)+g(n)+2*s)
disp('Value of integral using trapazoidal rule is',I2)
```

OUTPUT:

"Exact value of integration using scilab inbuilt function is"

4.0276289

"Value of integral using trapazoidal rule is"

4.0276289

Scilab 6.1.0 Console

File Edit Control Applications ?



Scilab 6.1.0 Console

Startup execution:

loading initial environment

--> exec('C:\Users\AYUSH JAIN\OneDrive\Desktop\scilab21.sce', -1)

"Exact value of integration using scilab inbuilt function is"

4.0276289

"Value of integral using trapazoidal rule is"

4.0276289

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