MA322 Scientific Computing lab: 05

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- To execute my .py file
  Run **$python3 180123029_NamanGoyal.py** on the terminal. The snapshot is given below questions wise:

Ques.1

```
neo@Neo:~/Desktop/sci_lab/lab05$ python3 180123029_NamanGoyal.py
------------------Q1------------------

Part I -------->
Actual Integral    : 0.192259357
Calculated Integral: 0.192268706
Error              : 0.000009349
Percent Error      : 0.004862895%

Part II -------->
Actual Integral    : -0.176820020
Calculated Integral: -0.176818989
Error              : 0.000001031
Percent Error      : 0.000582821%

Part III -------->
Actual Integral    : 0.088755283
Calculated Integral: 0.089263016
Error              : 0.000507733
Percent Error      : 0.572059082%
------------------------------------------------------
```

Ques.3

```
------------------Q3------------------

Actual Integral      : 1.098612289
Gaussian Integral    : 1.090909091
Trapezoidal Integral: 1.333333333
Simpson Integral     : 1.111111111
------------------------------------------------------
```

Ques.4

```
-------------------Q4-------------------

Actual Integral       : 0.693147180
Gaussian Integral     : 0.693121693
CompSimpson Integral: 0.693154531
-----------------------------------------------------
```

Ques.6

```
-------------------Q6-------------------

Actual Integral: -0.915966000
Gaussian Integral for N = 1 : -0.26
Gaussian Integral for N = 2 : -0.76
Gaussian Integral for N = 3 : -0.84
Gaussian Integral for N = 4 : -0.87
Gaussian Integral for N = 5 : -0.88
-----------------------------------------------------
```

** Ques.2 and Ques.5 will be submitted via written along with this assignment with files named 180123029_NamanGoyal_q2.pdf and 180123029_NamanGoyal_q5.pdf..