

BIRLA INSTITUTE OF TECHNOLOGY OFF-CAMPUS DEOGHAR
DEPARTMENT OF MATHEMATICS
(2nd QUIZ EXAMINATION)

CLASS: BTech
BRANCH: ALL

SEMESTER : 4th

SESSION : SP/25

SUBJECT: MA 203 NUMERICAL METHODS

TIME: 05:00PM to 06:00PM

FULL MARKS: 10

Q1.

Calculate $\int_0^6 \frac{1}{1+x} dx$ using Simpson's 1/3rd rule and space length (h) 1. What are the exact value and error up to 3 decimal places, do you think?

Q2.

A curve is drawn to pass through the points given by the following table:

x	1	1.5	2	2.5	3	3.5	4
y	2	2.4	2.7	2.8	3	2.6	2.1

Estimate the area bounded by the curve, x-axis and the lines $x=1$ and $x=4$ using Simpson's 3/8th rule.

Marks

4+1

5