

# Course: Basic Calculus - 1

**Course Code:** noc21-ma16

**Session:** 2020-21

**Duration:** 12 Week

**Assessment procedures:** Weekly Assignment (25%) + proctored certification Exam (75%)

## Curriculum of the Course:

Week 1:

- Real numbers
- Functions
- their graphs

Week 2:

- Limits of functions
- Left and Right hand limits

Week 3:

- Continuity
- Intermediate value property

Week 4:

- Differentiation
- Chain rule
- Implicit differentiation

Week 5:

- Extreme values
- Rolle's theorem
- Mean value theorems

Week 6:

- Local extrema

Week 7:

- Limits at infinity
- Infinite limits
- Asymptotes
- Differentials

Week 8:

- Definite integrals
- Area
- Mean value theorem

Week 9:

- The fundamental theorem
- Indefinite integral

Week 10:

- Integration by substitution
- Area between curves

Week 11:

- Volume by slicing
- Volume of revolution
- Cylindrical shells

Week 12:

- Lengths of plane curves
- Area of surface of revolution
- Antenna Fundamentals I – II

### List of students enrolled

S. No	Name of Student
1	Navya Sharma
2	Vishnu Gupta
3	Eklavya Joshi
4	Jayesh Singh Sagar
5	Karan Chawda
6	Prashu Jain
7	Shruti Chauhan
8	Suryapratapsingh
9	Tanish Khandal
10	Vikas Kumar Tank
11	Yayati