## 2. NUMBERS AND SEQUENCES

## Learning Outcomes:

**#** To study the concept of Euclid's Division Lemma.

**#** To understand Euclid's Division Algorithm.

**#** To find the LCM and HCF using Euclid's Division Algorithm.

**#** To understand the Fundamental Theorem of Arithmetic.

**H** To understand the congruence modulo 'n', addition modulo 'n' and multiplication modulo 'n'.

**#** To define sequence and to understand sequence as a function.

**H** To define an Arithmetic Progression (A.P.) and Geometric Progression (G.P.).

**H** To find the  $n_{th}$  term of an A.P. and its sum to n terms.

**H** To find the *n*th term of a G.P. and its sum to *n* terms.

**#** To determine the sum of some finite series such as  $\sum n$ ,  $\sum n^2$ ,  $\sum n^3$ .