

Chapter 02

POLYNOMIALS

Division Principle:

$$\text{Dividend} = (\text{Divisor} \times \text{Quotient}) + \text{Remainder}$$

Where remainder is '0' or a polynomial of degree less than that of divisor.

Some Notations:

- i) Dividend is $P(x), F(x), p(x)$ (or) $f(x)$ etc;
- ii) Divisor is $g(x)$
- iii) Quotient is $q(x)$
- iv) Remainder is R or $r(x)$
- v) If divisor is first degree then remainder is of '0' degree i.e., a constant.

Hence 'R' is the remainder if $(x-a)(x-b), (ax+b)$ or $(ax-b)$ are the divisors.