

Chapter: 10

Q.1 Choose the correct alternative. (4)

- 1) The various parts of an algebraic expression separated by + or – sign are called
a. terms b. factors c. identities d. None of these
- 2) The degree of remainder will be when $12m^3 - 6m^2 + 4m$ is divided by $3m^2$.
a. one b. two c. three d. four
- 3) The operations of addition, subtraction, and multiplication on polynomials are similar to those performed on algebraic expression.
a. True b. False
- 5) Division of a Polynomial by a Polynomial can be verified using following algorithm.
a. Dividend = Divisor \times Quotient + Remainder.
b. Divided = Divisor + Quotient \times Remainder.
c. Dividend = Divisor \times Quotient – Remainder.
d. Dividend = Divisor – Quotient \times Remainder.

Q.2 Answer the following questions (4)

- 1) Division of a monomial by a monomial
 $2x^2yz \div 3xyz^2$
- 2) Division of a monomial by a monomial
 $(-15a^2b c^3) \div (3ab)$
- 3) Write the degree of each of the following polynomials.
 $2x^2 + x^2 - 8$
- 4) Write the degree of each of the following polynomials.
5

Q.3 Attempt the following questions. (Any three) (6)

- 1) Division of a polynomial by a monomial
 $(6x^3 + 8x^2) \div (2x)$
- 2) Division of a monomial by a monomial
 $(25x^3y^2) \div (-15x^2y)$
- 3) Division of a monomial by a monomial

$$= \frac{32m^2n^3p^2}{4mnp}$$

- 4) Division of a monomial by a monomial

$$(16m^3y^2) \div (4m^2y)$$

- 5) Division of a polynomial by a monomial

$$(15y^4 + 10y^3 - 3y^2) \div (5y^2)$$

Q.4 Solve the following questions. (Any two)

(6)

- 1) Divide and write the quotient and the remainder.

$$(3x + 2x^2 + 4x^3) \div (x - 4)$$

- 4) Divide and write the quotient and the remainder.

$$(2m^3 + m^2 + m + 9) \div (2m - 1)$$

- 3)

$$(5y^3 - 6y^2 + 6y - 1) \div (5y - 1)$$

