POLYNOMIALS

DEGREE OF POLYNOMIAL

EXERCISE

Q.1 Find the degree of the polynomial $P(x) = 6s^4 + 3x^2 + 5x + 19$

Q.2 Find the degree of a monomial:

(i) $7xyz$ (ii) $-5abc^4$

Q.3 Find the degree of a binomial:

(i) $-11x^2 + 3xyz$ (ii) $5p^2q + 3pq^3r$

Q.4 Find the degree of a trinomial:

(i) $a + b + c$ (ii) $-yz^2 - y^3z^2 + 5x^2y^2z^2$

Q.5 For each of the following polynomials write down its degree:

(i) $1 + 3z$ (ii) $1 + 3m + 5m^2$

(iii) $4u + 5u^3 + 17u^5 + 7$ (iv) $a^9 + 4a^3 + 7a^2 + 10$

(v) $-11p + 7$ (vi) $m^6 + m^9$

Q.6 State the degree of the polynomials:

(i) $2a^2 + 3a^2 + 4a$ (ii) $5a^3b - 7a^2 + 11b^2$

(iii) $(2/7)xy^2 - (7/2)x^2y + y$ (iv) $(5m^2n)/6 - 9m^2$

(v) $4a^3 - 4a^2 + 5a - 6$ (vi) $10^2n + 5mn^2 + 1$

Q.7 Find the degree of the polynomials:

(i) $a + a^2$ (ii) $2b^2 - 5b + 2$

(iii) $-9ab + 11b$ (iv) $p^3 + p^8 - p^{10}$

(v) $1 - 100c^{20}$ (vi) $10 + 17k - 23k^3$

Q.8 Form a binomial, trinomial or polynomial for the following descriptions:

(i) write a binomial in 'm' with a degree of 7

(ii) write a trinomial in 'a' with a degree of 11

(iii) write a polynomial in 'z' with a degree of 5

(iv) write a binomial in 'x' with a degree of 1

(v) write a trinomial in 'p' with a degree of 3

Q.9 Find the degree of the polynomials

(i) $5x - 6x^3 + 8x^7 + 6x^2$

(ii) $2y^{12} + 3y^{10} - y^{15} + y + 3$

(iii) x

(iv) 8

ANSWER KEY

1. The degree of the polynomial is 4 as the highest power of the variable 4.

2. (i) 3 (ii) 6

3. (i) 3 (ii) 5

4. (i) 1 (ii) 6

5. (i) 1 (ii) 2

(iii) 5 (iv) 9

(v) 1 (vi) 9

6. (i) 2 (ii) 4

(iii) 3 (iv) 3

(v) 3 (vi) 3

7. (i) 2 (ii) 2

(iii) 2 (iv) 10

(v) 20 (vi) 3

8. (i) $-5m^7 + 11$

(ii) $2a^{11} - a^2 + 9a$

(iii) $13 + 5z + 10z^2 - 17z^3 + z^4 - 5z^5$

(iv) $-x - 1$

(v) $-3p^3 - 3p^2 + 5$

9. (i) degree = 7

(ii) degree = 15.

(iii) degree is 1.

(iv) degree = 0