EduSahara™ Assignment

Name : Factorisation Miscellaneous

Chapter : Factorisation

Grade : SSC Grade VIII

1. Find the prime factorization of 38

   (i) 2×21 (ii) 2×19 (iii) $2^{-2}\times19$ (iv) 2×19^{2} (v) 1×19

2. Find the prime factorization of 95

   (i) 5×18 (ii) 5×19^{2} (iii) 5×19 (iv) 3×19 (v) 7×19

3. Which of the following is a factor of $3xy^{4}z$?

   (i) $xy^{2}z^{2}$ (ii) $y^{5}z$ (iii) $y^{2}z$ (iv) $y^{2}z^{2}$ (v) $x^{2}y^{2}z$

4. Which of the following is not a factor of $9x^{5}y^{3}z$?

   (i) $9x^{5}y^{2}z$ (ii) $9x^{4}y^{3}z$ (iii) $9x^{5}y^{3}$ (iv) $9x^{3}y^{2}z$ (v) $9x^{5}y^{4}z$

5. Which of the following is a factor of $(2x+y^{2}z^{3})$?

   (i) $y^{2}z^{3}$ (ii) $2x$ (iii) no factors (iv) y (v) xz^{3}

6. Which of the following is an irreducible factor of $7x^{4}y^{5}z^{3}$?

   (i) xz^{3} (ii) $x^{2}y$ (iii) x (iv) $y^{3}z$ (v) $x^{2}y^{3}z^{3}$

7. Which of the following is not an irreducible factor of $(x^{2}y+xy^{2}+xy)$?

   (i) xy (ii) x (iii) $(x+y+1)$ (iv) y

8. Which of the following are true ?

   a) Division of a polynomial with another polynomial stops when the degree of the remainder equals the degree of the divisor
   b) If p(a) = 0, then (x + a) perfectly divides p(x)
   c) If the degree of p(x) is less then the degree of d(x), we should not divide p(x) with d(x)
   d) If p(x) is divided by (x - a), the remainder is p(a)

   (i) {c,d} (ii) {a,c} (iii) {a,d,c} (iv) {a,b,c} (v) {b,d}

9. In which of the cases, $g(x)$ is a factor of $f(x)$?

   (i) $f(x)=(-x^{3}-5x^{2}+8x+12), g(x)=(x+2)$ (ii) $f(x)=(x^{3}+9x^{2}+20x+12), g(x)=(-x+4)$

   (iii) $f(x)=(3x^{3}+5x^{2}-74x+24), g(x)=(x+1)$ (iv) $f(x)=(3x^{3}-7x^{2}-22x+8), g(x)=(-3x+1)$

   (v) $f(x)=(-x^{3}-3x^{2}+22x+24), g(x)=(-x+2)$

10. $(20x^4+8x^3)\div 4x^2$

(i) $(5x^2+3x)$ (ii) $(-5x^2+2x)$ (iii) $(5x^2+2x)$ (iv) $(5x^2-2x)$ (v) $(4x^2+2x)$

11. $(20x^4+23x^3+6x^2)\div(5x^2+2x)$

(i) $(4x^2+3x)$ (ii) $(4x^2+4x)$ (iii) $(3x^2+3x)$ (iv) $(4x^2-3x)$ (v) $(-4x^2+3x)$

12. $(2x^4+2x^3-8x^2-8x)\div(2x^2-2x-4)$

(i) $(-x^2+2x)$ (ii) (x^2+2x) (iii) (x^2-2x) (iv) (x^2+3x) (v) (x^2+x)

Assignment Key

1) (ii)	2) (iii)	3) (iii)	4) (v)	5) (iii)	6) (iii)
7) (i)	8) (i)	9) (iv)	10) (iii)	11) (i)	12) (ii)