EduSahara™ Assignment

Name : Polynomial Division

Chapter : Polynomials

Grade : SSC Grade X

1. Which of the following are true?

   a) If (x - a) is a factor of f(x), then f(a) = 0
   b) A linear polynomial in one variable has only one root
   c) Zero of a polynomial and root of the polynomial are synonymous
   d) A polynomial of degree n has atmost n zeros
   e) Zero of a polynomial is the value of the variable for which the polynomial value is zero
   f) Zero of a polynomial and zero polynomial are synonymous
   g) If (x + a) is a factor of f(x), then f(a) = 0

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

2. Which of the following are true ?

   a) If p(a) = 0, then (x + a) perfectly divides p(x)
   b) Division of a polynomial with another polynomial stops when the degree of the remainder equals the degree of the divisor
   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) {a,c} (ii) {a,b,c} (iii) {b,d} (iv) {c,d} (v) {a,d,c}

3. The quotient when $2y$ is divided by (-2) is

   (i) $(-2y)$ (ii) $(-4y)$ (iii) $(-y)$ (iv) $2y$ (v) 0

4. The quotient when $(-9h^2)$ is divided by $(h-4)$ is

   (i) $(-8h-36)$ (ii) $(-11h-36)$ (iii) $(-7h-36)$ (iv) $(-9h-36)$ (v) $(-10h-36)$

5. The quotient when $(4h+2)$ is divided by $(h-8)$ is

   (i) 5 (ii) 1 (iii) 7 (iv) 4 (v) 3

6. The quotient when $(-6p^2+9p+8)$ is divided by $(p+4)$ is

   (i) $(-7p+33)$ (ii) $(-8p+33)$ (iii) $(-5p+33)$ (iv) $(-3p+33)$ (v) $(-6p+33)$

7. The quotient when $(-6z^2+5z)$ is divided by $(z-8)$ is

   (i) $(-7z-43)$ (ii) $(-8z-43)$ (iii) $(-6z-43)$ (iv) $(-3z-43)$ (v) $(-5z-43)$

8. The quotient when $(4x^3-5x^2-2x)$ is divided by $(x^2+17x+72)$ is

   (i) $(5x-73)$ (ii) $(3x-73)$ (iii) $(2x-73)$ (iv) $(4x-73)$ (v) $(7x-73)$

9. The quotient when $(7v^4+6v^3+8v^2-v+3)$ is divided by $(v-6)$ is

(i) $(10v^3+48v^2+296v+1775)$ (ii) $(5v^3+48v^2+296v+1775)$ (iii) $(8v^3+48v^2+296v+1775)$

(iv) $(6v^3+48v^2+296v+1775)$ (v) $(7v^3+48v^2+296v+1775)$

10. The remainder when $3r^2$ is divided by $(r+4)$ is

(i) 50 (ii) 49 (iii) 47 (iv) 45 (v) 48

11. The remainder when $(-2e+6)$ is divided by $(e+8)$ is

(i) 24 (ii) 22 (iii) 21 (iv) 23 (v) 20

12. The remainder when $(2e^2+5e)$ is divided by $(e-4)$ is

(i) 52 (ii) 53 (iii) 51 (iv) 55 (v) 49

13. The remainder when $(-7n^2+n+5)$ is divided by $(n+4)$ is

(i) (-110) (ii) (-111) (iii) (-112) (iv) (-109) (v) (-114)

14. The remainder when $(5u^3-5u^2+2)$ is divided by $(u^2+4u-32)$ is

(i) $(262u-798)$ (ii) $(259u-798)$ (iii) $(261u-798)$ (iv) $(257u-798)$ (v) $(260u-798)$

15. The remainder when $(8k^4-3k^3-6k^2-4k+7)$ is divided by $(k-4)$ is

(i) 1752 (ii) 1751 (iii) 1753 (iv) 1750 (v) 1749

16. The remainder when $(-x^4-5x^3+6x^2+3x)$ is divided by $(x+9)$ is

(i) (-2458) (ii) (-2456) (iii) (-2454) (iv) (-2460) (v) (-2457)

17. $(-8x^3-4x^2+18x+9)\div(-4x^2-8x-3)=$

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

18. $(-12x^4-44x^3-12x^2+44x+24)\div(-6x^3-28x^2-34x-12)=$

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

19. $(-54x^5-45x^4+351x^3-117x^2-297x+162)$ divided by $(18x^3-27x^2-18x+27)=$

(i) $(-3x^2-7x+6)$ (ii) $(-3x^2-7x-6)$ (iii) $(-3x^2-8x+6)$ (iv) $(-3x^2-6x+6)$ (v) $(-3x^2+7x+6)$

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

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

21. $(20x^4+17x^3+3x^2)\div(4x^2+x)$

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

22. $(15x^4+6x^3-135x^2-54x)\div(3x^2-27)$

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

Assignment Key

1) (iii)	2) (iv)	3) (iii)	4) (iv)	5) (iv)	6) (v)
7) (iii)	8) (iv)	9) (v)	10) (v)	11) (ii)	12) (i)
13) (ii)	14) (v)	15) (ii)	16) (v)	17) (v)	18) (v)
19) (i)	20) (v)	21) (iv)	22) (v)		