



1. The quotient when  $4p$  is divided by 3 is

- (i)  $2p$  (ii)  $\frac{2}{3}p$  (iii)  $\frac{6}{5}p$  (iv)  $\frac{4}{3}p$

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

- (i)  $(-7v+56)$  (ii)  $(-5v+56)$  (iii)  $(-8v+56)$  (iv)  $(-6v+56)$  (v)  $(-9v+56)$

3. The quotient when  $(5s-2)$  is divided by  $(s+6)$  is

- (i) 6 (ii) 5 (iii) 2 (iv) 4 (v) 8

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

- (i)  $(-11q+64)$  (ii)  $(-8q+64)$  (iii)  $(-9q+64)$  (iv)  $(-7q+64)$  (v)  $(-5q+64)$

5. The quotient when  $(-9d^2-7d)$  is divided by  $(d+4)$  is

- (i)  $(-12d+29)$  (ii)  $(-8d+29)$  (iii)  $(-6d+29)$  (iv)  $(-10d+29)$  (v)  $(-9d+29)$

6. The quotient when  $(-3r^3+6r^2-4r)$  is divided by  $(r^2+12r+32)$  is

- (i)  $(-2r+42)$  (ii)  $(-3r+42)$  (iii)  $(-6r+42)$  (iv) 42 (v)  $(-4r+42)$

7. The quotient when  $(7w^4-7w^3-8w^2+7w-9)$  is divided by  $(w^2+5w-36)$  is

- (i)  $(8w^2-42w+454)$  (ii)  $(5w^2-42w+454)$  (iii)  $(7w^2-42w+454)$  (iv)  $(6w^2-42w+454)$   
(v)  $(9w^2-42w+454)$

8. The quotient when  $(8s^5+7s^4-2s^3-4s^2+s-5)$  is divided by  $(s+3)$  is

- (i)  $(5s^4-17s^3+49s^2-151s+454)$  (ii)  $(10s^4-17s^3+49s^2-151s+454)$   
(iii)  $(9s^4-17s^3+49s^2-151s+454)$  (iv)  $(8s^4-17s^3+49s^2-151s+454)$   
(v)  $(7s^4-17s^3+49s^2-151s+454)$

9. The remainder when  $k$  is divided by  $(-3)$  is

- (i) 2 (ii) 1 (iii) 0 (iv)  $(-3)$  (v)  $(-1)$

10. The remainder when  $(8v^4-7v^3+3v+2)$  is divided by  $(v^2+4v+3)$  is

- (i)  $(-411v-394)$  (ii)  $(-408v-394)$  (iii)  $(-409v-394)$  (iv)  $(-407v-394)$  (v)  $(-405v-394)$

11.  $(-x^3 + 2x^2 + x - 2) \div (x^2 - 1) =$

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

12.  $(12x^4 + 32x^3 + 21x^2 - 2x - 3) \div (-12x^3 - 20x^2 - x + 3) =$

- (i)  $(x - 1)$  (ii)  $(-x - 1)$  (iii)  $(-1)$  (iv)  $(-x + 1)$  (v)  $(-2x - 1)$

13.  $(-81x^5 + 135x^4 + 369x^3 - 27x^2 - 288x - 108)$  divided by  $(27x^3 + 63x^2 + 48x + 12) =$

- (i)  $(-3x^2 + 11x - 9)$  (ii)  $(-3x^2 + 12x - 9)$  (iii)  $(-3x^2 - 12x - 9)$  (iv)  $(-3x^2 + 12x + 9)$   
(v)  $(-3x^2 + 13x - 9)$

14.  $(16x^3y^2 + 112x^2y^3) \div 4xy =$

- (i)  $(4x^3y^3 + 28xy^2)$  (ii)  $(4x^3y^2 + 28xy^2)$  (iii)  $(4x^2y + 28xy^3z)$  (iv)  $(4x^2y + 28y^3)$  (v)  $(4x^2y + 28xy^2)$

15.  $(140x^3y^2z^4 + 20x^2y^3z^4 + 4x^2y^2z^3) \div 2xyz^2 =$

- (i)  $(70x^2yz^2 + 2xyz + 10y^3z^2)$  (ii)  $(70x^3y^2z^2 + 10xy^2z^2 + 2xyz)$  (iii)  $(70x^2yz^2 + 10xy^2z^2 + 2xyz)$   
(iv)  $(70x^2yz^2 + 10xy^3z^3 + 2xyz)$  (v)  $(70x^3y^3z^2 + 10xy^2z^2 + 2xyz)$

16. Factorize and divide  $(144x^4 - 424x^2 + 225) \div (12x^2 + 8x - 15)$

- (i)  $(14x^2 - 8x - 15)$  (ii)  $(12x^2 - 8x - 15)$  (iii)  $(11x^2 - 8x - 15)$  (iv)  $(9x^2 - 8x - 15)$  (v)  $(13x^2 - 8x - 15)$

17. Factorize and divide  $(-5x^4 + 3x^3 + 140x^2 - 324x + 144) \div (-x^2 - 2x + 24)$

- (i)  $(-x^2 - 4x + 12)$  (ii)  $(5x^2 + 7x - 6)$  (iii)  $(5x^2 + 13x + 6)$  (iv)  $(5x^2 - 13x + 6)$  (v)  $(5x^2 - 7x - 6)$

18. Which of the following are true ?

- a) If  $p(a) = 0$ , then  $(x + a)$  perfectly divides  $p(x)$   
b) If  $p(x)$  is divided by  $(x - a)$ , the remainder is  $p(a)$   
c) Division of a polynomial with another polynomial stops when the degree of the remainder equals the degree of the divisor  
d) If the degree of  $p(x)$  is less than the degree of  $d(x)$ , we should not divide  $p(x)$  with  $d(x)$   
(i)  $\{a, b\}$  (ii)  $\{a, d, b\}$  (iii)  $\{a, c, b\}$  (iv)  $\{b, d\}$  (v)  $\{c, d\}$

19.  $(16x^4 + 20x^3) \div 4x^2$

- (i)  $(-4x^2 + 5x)$  (ii)  $(3x^2 + 5x)$  (iii)  $(4x^2 + 5x)$  (iv)  $(4x^2 + 6x)$  (v)  $(4x^2 - 5x)$

20.  $(8x^4 + 30x^3 + 25x^2) \div (2x^2 + 5x)$

- (i)  $(4x^2 - 5x)$  (ii)  $(4x^2 + 5x)$  (iii)  $(4x^2 + 6x)$  (iv)  $(-4x^2 + 5x)$  (v)  $(3x^2 + 5x)$

21.  $(6x^4 + 42x^3 - 60x^2 - 96x) \div (3x^2 + 18x - 48)$

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

## Assignment Key

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