



1. The quotient when  $(-8s)$  is divided by 5 is

- (i)  $(-2s)$  (ii)  $(-\frac{6}{5}s)$  (iii)  $(-\frac{10}{7}s)$  (iv)  $(-\frac{8}{5}s)$

2. The quotient when  $(-4k^2)$  is divided by  $(k+4)$  is

- (i)  $(-3k+16)$  (ii)  $(-4k+16)$  (iii)  $(-5k+16)$  (iv)  $(-7k+16)$  (v)  $(-2k+16)$

3. The quotient when  $(-3k-4)$  is divided by  $(k+3)$  is

- (i)  $(-4)$  (ii)  $(-2)$  (iii)  $(-3)$  (iv)  $(-5)$  (v) 0

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

- (i)  $(6k+11)$  (ii)  $(4k+11)$  (iii)  $(8k+11)$  (iv)  $(5k+11)$  (v)  $(2k+11)$

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

- (i)  $(6p+24)$  (ii)  $(5p+24)$  (iii)  $(p+24)$  (iv)  $(3p+24)$  (v)  $(4p+24)$

6. The quotient when  $(2q^2-5q+1)$  is divided by  $(q+4)$  is

- (i)  $(3q-13)$  (ii)  $(2q-13)$  (iii)  $(q-13)$  (iv)  $(-q-13)$  (v)  $(5q-13)$

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

- (i)  $(5b^2-31b+116)$  (ii)  $(9b^2-31b+116)$  (iii)  $(10b^2-31b+116)$  (iv)  $(8b^2-31b+116)$   
(v)  $(7b^2-31b+116)$

8. The quotient when  $(w^5+8w^4+9w^3-2w^2-7w+4)$  is divided by  $(w-1)$  is

- (i)  $(9w^3+18w^2+16w+9)$  (ii)  $(-2w^4+9w^3+18w^2+16w+9)$  (iii)  $(2w^4+9w^3+18w^2+16w+9)$   
(iv)  $(3w^4+9w^3+18w^2+16w+9)$  (v)  $(w^4+9w^3+18w^2+16w+9)$

9. The remainder when  $4h$  is divided by  $(-7)$  is

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

10. The remainder when  $(-7u^4-8u^3+9u^2-u)$  is divided by  $(u+2)$  is

- (i)  $(-11)$  (ii)  $(-9)$  (iii)  $(-13)$  (iv)  $(-10)$  (v)  $(-8)$

11.  $(6x^3-22x^2+10x+6) \div (-6x^2+4x+2) =$

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

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

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

13.  $(18x^5 - 21x^4 - 45x^3 + 15x^2 + 27x + 6)$  divided by  $(-6x^3 + 7x^2 + 9x + 2) =$

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

14.  $(16x^3y^2 + 128x^2y^2) \div 4xy =$

- (i)  $(4x^2y + 32y^2)$  (ii)  $(4x^3y^3 + 32xy)$  (iii)  $(4x^2y + 32xy^2z)$  (iv)  $(4x^3y^2 + 32xy)$  (v)  $(4x^2y + 32xy)$

15.  $(1440x^3y^2z^3 + 180x^3y^2z^2 + 36x^2y^3z^2) \div 6xyz =$

- (i)  $(240x^3y^3z^2 + 30x^2yz + 6xy^2z)$  (ii)  $(240x^2yz^2 + 30xy^2z)$  (iii)  $(240x^3y^2z^2 + 30x^2yz + 6xy^2z)$   
(iv)  $(30x^2y^2z^2 + 240x^2yz^2 + 6xy^2z)$  (v)  $(240x^2yz^2 + 30x^2yz + 6xy^2z)$

16. Factorize and divide  $(324x^4 - 360x^2 + 36) \div (18x^2 - 12x - 6)$

- (i)  $(21x^2 + 12x - 6)$  (ii)  $(18x^2 + 12x - 6)$  (iii)  $(17x^2 + 12x - 6)$  (iv)  $(19x^2 + 12x - 6)$  (v)  $(15x^2 + 12x - 6)$

17. Factorize and divide  $(3x^4 - 48x^3 + 267x^2 - 582x + 360) \div (-x^2 + 10x - 24)$

- (i)  $(x^2 - 9x + 20)$  (ii)  $(-3x^2 + 18x - 15)$  (iii)  $(-3x^2 - 12x + 15)$  (iv)  $(-3x^2 - 18x - 15)$   
(v)  $(-3x^2 + 12x + 15)$

18. 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  $p(x)$  is divided by  $(x - a)$ , the remainder is  $p(a)$   
c) If  $p(a) = 0$ , then  $(x + a)$  perfectly divides  $p(x)$   
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)  $\{c,d\}$  (ii)  $\{a,d,b\}$  (iii)  $\{a,b\}$  (iv)  $\{a,c,b\}$  (v)  $\{b,d\}$

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

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

20.  $(8x^4 + 16x^3 + 8x^2) \div (2x^2 + 2x)$

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

21.  $(24x^4 + 66x^3 - 63x^2 - 135x) \div (6x^2 + 9x - 27)$

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

## Assignment Key

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