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| **CLASS 9** |  **MATHEMATICS 041** |  |
| **QUESTION BANK** |  **CHAPTER::POLYNOMIALS** |  |

 1 MARK QUESTIONS

1. If x – 2 is a factor of 5x² – kx – 18, then find the value of k.

(a) -1
(b) 1
(c) 0
(d) 5

2. Find the coefficient of x² in (3x² – 5) (4 + 4x²).
(a) 12
(b) 5
(c) -8
(d) 8

3. Find the value of p for which x + p is a factor of x² + px + 3 – p.
(a) 1
(b) -1
(c) 3
(d) -3

4. Zero of the polynomial p(x) = cx + d is
(a) -d
(b) -c
(c) dc
(d) –dc

5. Find the remainder on dividing 5y³ – 2y² – 7y + 1 by y.
(a) -1
(b) 1
(c) 0
(d) 2

6. One of the factors of (16y² – 1) + (1 – 4y)²
(a) (4 + a)
(b) (4 – y)
(c) (4y + 1)
(d) 8y

7. What is remainder when x³ – 2x² + x + 1 is divided by x – 1?
(a) 0
(b) -1
(c) 1
(d) 2

8. Find the degree of polynomial √2 .
(a) 2
(b) 0
(c) 1
(d) 12

9. Find the value of 525² – 475².
(a) 100
(b) 10000
(c) 50000
(d) 100000

10. Find the value of k if x² + kx + 6 = (x + 2) (x + 3) for all k.
(a) 1
(b) -1
(c) 5
(d) 3

 2 MARKS QUESTIONS

11. **Find the value of the polynomial 5x – 4x2 + 3 at x = 2 and x = –1.**

**12.** Find the value of m, if x + 4 is a factor of the polynomial x2 + 3x + m.

13. Show that p – 1 is a factor of p10 + p8 + p6 – p4 – p2 – 1.

14. If p(x) = x3 + 3x2 – 2x + 4, then find the value of p(2) + p(-2) – P(0).

15. If one zero of the polynomial x2 – √3x + 40 is 5, which is the other zero ?

 3 MARKS QUESTIONS

16. If x – 3 is a factor of x2 – 6x + 12, then find the value of k. Also, find the other factor of the –

 polynomial for this value of k

17.Find a and b so that the polynomial x3– 10x2 + ax + b is exactly divisible by the polynomials

 (x – 1) and (x – 2).

18. Evaluate the following products without multiplying directly: 103x107

19. Factorize using appropriate identity:$9x^{2}-6xy-y^{2}$

20. **Verify:** $x^{3}+y^{3}=(x+y)(x^{2}-xy+y^{2})$**.**

**21. Find the value of K if x – 2 is factor of**$4x^{3}+3x^{2}-4x+k$

 4 MARKS QUESTIONS

22. Factorise : x2 – 6x2 + 11x – 6.

23. Show that 1/3and 4/3 are zeroes of the polynomial 9x3 – 6x2 – 11x + 4. Also, find the third

 zero of the polynomial.