



Class: 8th

Subjects: Mathematics/Test

Time Allowed: 30 Minutes

Name: _____

Admission No: _____

Q :1 Multiple Choice Questions (MCQs)

1. What is the value of the expression $3x^2 - 5x + 2$ when $x = -2$?
 - a) 4
 - b) 12
 - c) 20
 - d) 24
2. Which of the following is the simplified form of $(4x^3y^2) \times (3xy^5)$?
 - a) $12x^3y^{10}$
 - b) $12x^4y^7$
 - c) $7x^4y^7$
 - d) $12x^3y^7$
3. Factorise completely: $x^2 - 9$
 - a) $(x - 3)(x - 3)$
 - b) $(x + 3)(x + 3)$
 - c) $(x - 3)(x + 3)$
 - d) $x(x - 9)$
4. Solve for x: $2(x - 4) = 3x + 1$
 - a) $x = -9$
 - b) $x = -7$
 - c) $x = 9$
 - d) $x = -3$
5. Find the product of $(2x + 3)(x - 5)$.
 - a) $2x^2 - 7x - 15$
 - b) $2x^2 + 7x - 15$
 - c) $2x^2 - 13x - 15$
 - d) $2x^2 - 7x + 15$
6. What is the degree of the polynomial $5x^4 - 3x^2 + 8x - 12$?
 - a) 1
 - b) 2
 - c) 4
 - d) 7
7. If $(3/4)x = 12$, what is the value of x?
 - a) 9
 - b) 16
 - c) 36
 - d) 48
8. Which inequality represents the statement: "Five times a number n subtracted from 18 is at least 3"?
 - a) $5n - 18 \geq 3$
 - b) $18 - 5n > 3$
 - c) $18 - 5n \geq 3$
 - d) $18 - 5n \leq 3$

9. Expand the algebraic identity: $(a - b)^2$

a) $a^2 - b^2$

b) $a^2 - 2ab + b^2$

c) $a^2 + 2ab + b^2$

d) $a^2 - 2ab - b^2$

10. Find the value of k if the point $(2, k)$ lies on the line represented by the equation $3x - 2y = 12$.

a) $k = -3$

b) $k = 3$

c) $k = -6$

d) $k = 0$

Q.2. A rectangular playground has a length that is 5 metres more than twice its width.

a) Write an algebraic expression for the perimeter of the playground in terms of its width, w . (2 marks)

b) If the perimeter of the playground is 70 metres, find its actual length and width. (3 mks)

Q.3.a) Factorise the quadratic expression completely by splitting the middle term: $x^2 - 7x + 12$. (2 marks)

b) Simplify the following rational algebraic expression: $(x^2 - 7x + 12) / (x^2 - 16)$ (3 marks)

Instructions: Show all your working clearly in the space provided.