THE WISDOM ACADEMY

Sabina Town Sheihkupura Road Faisalabad. Ph# 0305-6491072

Class: 9th	Test#04:Math	TotalMarks:40	Chap#4
Student Name: _____		Roll No: _____	

Q: 01 Encircle the correct option: (1x10)

1	. Factorization of $x^2 - 5x + 4$ is:	a) $(x - 1)(x - 4)$	b) $(x + 1)(x + 4)$	c) $(x + 1)(x - 4)$	d) $(x - 1)(x + 4)$
2	$3x(x + y) - 2y(x + y) =$	a) $3x(x + y)^2$	b) $(x + y)(3x - 2y)^2$	c) $(x + y)(3x - 2y)$	d) $(x - y)(3x + y)$
3	An expression that divides two or more expressions exactly is called:	a) common factor	b) mutual factor	c) co-factor	d) Non of these
4	Factors of $(x^2 + 5x + 4)(x^2 + 5x + 6) - 3$ is:	a) $(x^2 + 5x + 7)(x^2 + 5x + 3)$	b) $(x^2 - 5x - 7)(x^2 - 5x - 3)$	c) $(x^2 + 5x + 7)(x^2 - 5x - 3)$	d) $(x^2 - 5x - 7)(x^2 + 5x + 3)$
5	$(a \pm b)^2 = $ _____:	a) $a^2 + b^2 \pm 2ab$	b) $a^2 - b^2 - 2ab$	c) $a^2 + b^2 \mp 2ab$	d) None of above
6	HCF of $x^2 - 4$ and $x^2 + 4x + 4$ is:	a) $(x - 2)$	b) $x^2 - 4$	c) $(x + 2)$	d) $x^2 + 4x + 4$
7	The product of two polynomials is equal to the _____ of their HCF and LCM.	a) Sum	b) Difference	c) Product	d) quotient
8	The LCM of $16x^2$, $4x$ and $30xy$ is:	a) $480x^3y$	b) $240xy$	c) $240x^2y$	d) $120x^4y$
9	One of the factors of $x^3 - 27$ is:	a) $x - 3$	b) $x + 3$	c) $x^2 - 3x + 9$	d) Both a and c
10	The LCM of $(a - b)^2$ and $(a - b)^4$ is:	a) $(a - b)^2$	b) $(a - b)^3$	c) $(a - b)^4$	d) $(a - b)^6$

Q: 02 Write the Answers of these Short Questions:(2x10)

1) Factorize: $512m^6 + 27m^3$
2) Factorize $(x + 2)(x + 3)(x + 4)(x + 5) - 15$
3) Find LCM by factorization: $x^2 - x - 20$, $x^2 - 25x + 100$.
4) Factorize: $x^6 - 27$
5) Find the LCM of $x^2 - 3x + 2$, $x^2 - 1$ and $x^2 - 5x + 4$.
6) The LCM of $x^2y + xy^2$ and $x^2 + xy$ is $xy(x + y)$. Find the HCF.
7) Factorize: $x^3 + 18x^2y + 108xy^2 + 216y^3$
8) Find LCM by using prime factorization method: $x^4 - 16$, $x^3 - 4x$.
9) Dine LCM. What is the formula to find the LCM?
10) Define trinomial factoring?

Q: 03 Solve these Long Questions:

A. If LCM $= x^3 - 10x^2 + 11x + 70$ HCF $= x - 7$ p (x) $= x^2 - 12x + 35$ find value of q (x) ?
B. Find HCF by using division method: $2x^3 + 2x^2 + 2x + 2$, $6x^3 + 12x^2 + 6x + 12$?