

## Factorization and Algebraic Manipulation

Sr	Questions	Answers Choice
1	Factors of $3x^2 - x - 2$ are	A. $(x+1)(3x-2)$ B. $(x+1)(3x+2)$ C. $((x-1)(3x-2)$ D. $(x-1)(3x+2)$
2	L.C.M.of $a^2-b^2$ and $a^4 - b^4$ is	A. $a^2+b^2$ B. $a^2-b^2$ C. $a^4 - b^4$ D. $a-b$
3	What will be added to complete the square of $9a^2 - 12 ab$ ?	A. $-16 b^2$ B. $16 b^2$ C. $4 b^2$ D. $-4b^2$
4	Factorization of $x^3 + 3x^2 + 3x + 1$ is	A. $(x + 1)^3$ B. $(x-1)^3$ C. $(x+1)(x^2+x+1)$ D. $(x-1)(x^2-x+1)$
5	The factors of $4x^2 - 12 xy + 9 y^2$ are	A. $(2x + 3)^2$ B. $(2x - 3)^2$ C. $(2+3x)(2-3x)^2$ D. $(2x-3)(2x+3)$
6	The factorization of $12 x + 36$ is	A. $12(x+3)$ B. $12(3x)$ C. $12(3x+1)$ D. $x(12+36x)$
7	What should be added to complete the square of $y^4 + 81$	A. $18 y^2$ B. $-18y^2$ C. $9 y^2$ D. $18y$
8	Factors of $8x^3 - y^3$ are	A. $(2x + y)(4x^2 + 2xy - y^2)$ B. $(2x+y)(4x^2 - 2y + y^2)$ C. $(2x-y)(4x^2 - 2xy + y^2)$ D. $(2x-y)(4x^2 + 2xy + y^2)$
9	The LCM of $(a-b)^2$ and $(a-b)^4$	A. $(a-b)^2$ B. $(a-b)^3$ C. $(a-b)^4$ D. $(a-b)^6$
10	Let $5x^2 - 17xy - 12y^2 = A \times B$ if $A = (x - 4y)$ then B is.	A. $(5x+3y)$ B. $(5x-3y)$ C. $(5x+3y)$ D. $(5x-4y)$
11	Product of LCM and HCF = ..... of two polynomial	A. Sum B. Difference C. Product D. Quotient
12	$(x+y)(x^2-xy+y^2)=$	A. $x^3-y^3$ B. $x^3+y^3$ C. $(x+y)^3$ D. $(x-y)^3$
13	H.C.F of $a^3 + b^3$ and $a^2-ab+b^2$	A. $a+b$ B. $a^2-ab-b^2$ C. $(a-b)^2$ D. $a^2 + b^2$
14	The factors of $x^2 - 5x + 6$ are	A. $x+1, x-6$ B. $x-2, x-3$ C. $x+6, x-1$ D. $x+2, x+3$
15	H.C.F. of $m-2$ and $m^2+m-6$ is	A. $m+2$ B. $m+3$ C. $m^2+m-6$ D. $m-2$

16	H.C.F. of $a^2 - b^2$ and $a^3 - b^3$ is	<p>A. <math>a - b</math>  B. <math>a + b</math>  C. <math>a^2 + ab + b^2</math>  D. <math>a^2 - ab + b^2</math></p>
17	The square root of $x^2 - 6x + 9$ is	<p>C. <math>x - 3</math>  D. <math>x + 3</math></p>
18	One of factors of $x^3 - 27$ is	<p>A. <math>x - 3</math>  B. <math>x + 3</math>  C. <math>x^2 - 3x + 9</math>  D. Both a and c</p>
19	L.C.M of $15x^2z$ , $45xy^2$ and $30yz^2$ is	<p>A. <math>90xyz</math>  B. <math>90x^2y^2z^2</math>  C. <math>90x^3y^3z^3</math>  D. <math>15x^2yz</math></p>
20	The HCF of $a^3b^3$ and $ab^2$ is	<p>A. <math>a^3b^3</math>  B. <math>ab^2</math>  C. <math>a^2b^2</math>  D. <math>a^2b</math></p>