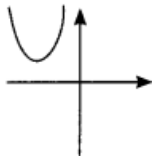
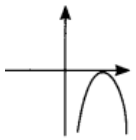
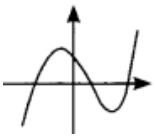
INDIAN SCHOOL AL WADI AL KABIR

Department of Mathematics, 2020-2021

CLASS: X | Chapter -2 Polynomials | 13-09-2020

Q.1.	If $\propto$ and β are the zeroes of the polynomial $p(x) = x^2 + x + 1$, then $\frac{1}{\propto} + \frac{1}{\beta}$ is equal to							
	A	1	**B**	-1	**C**	0	**D**	None of these
Q.2.	If one zero of the polynomial $P(x) = (k^2 + 4)x^2 + 13x + 4k$ is the reciprocal of the other, then k is							
	A	2	**B**	-2	**C**	1	**D**	-1
Q.3.	If $\propto$ and β are the zeroes of the polynomial $p(x) = x^2 - p(x + 1) - c$, then $(\propto + 1)(\beta + 1)$ is equal to							
	A	c-1	**B**	1-c	**C**	C	**D**	c+1
Q.4.	A quadratic polynomial in which the sum of whose zeroes is zero and one of its zero is 3 is							
	A	$x^2 + 3$	**B**	$x^2 - 3$	**C**	$x^2 - 9$	**D**	$x^2 + 9$
Q.5.	If $x + 2$ is a factor of $x^2 + ax + 2b$ and $a + b = 4$, then							
	A	a = 1, b = 3	**B**	a = 5, b = -1	**C**	a = -1, b = 5	**D**	a = 3, b = 1
Q.6.	If one zero of the quadratic polynomial $x^2 + 3x + k$ is 2, then the value of k is							
	A	5	**B**	-5	**C**	10	**D**	-10
Q.7.	The zeroes of the quadratic polynomial $x^2 + 99x + 127$ are							
	A	both positive	**B**	both negative	**C**	one positive and one negative	**D**	both equal
Q.8.	Which of the following is not the graph of a quadratic polynomial?							
	A		**B**		**C**		**D**	
Q.9.	If graph of a polynomial does not intersect the x-axis but intersects y-axis in one point, then no. of zeroes of the polynomial is equal to							
	A	0	**B**	1	**C**	0 or 1	**D**	None of these
Q.10	A polynomial of degree n has							
	A	only 1 zero	**B**	at least n zeroes	**C**	at most n zeroes	**D**	more than n zeroes

Q11.	Zeroes of $p(z) = z^2 - 27$ are _____ and _____ .
Q12.	If a and b are the zeroes of the polynomial, x^2-11x +30, then the value of $a^3 + b^3$ = …….
Q13.	If one of the zeroes of the quadratic polynomial $(k - 1)x^2 + kx + 1$ is –3, then the value of k is …….
Q14.	If sum of the squares of zeroes of the quadratic polynomial $6x^2 + x + k$ is 25/36, the value of k is -----
Q15.	If (x + 1) is a factor of $x^2 - 3ax + 3a - 7$, then the value of a is --------
Q16.	If α and β are the zeros of the quadratic polynomial $f(x) = 2x^2 - 5x + 7$, find a polynomial whose zeros are 2α+ 3β and 3α+ 2β?
Q17.	If one root of the polynomial $p(y) = 5y^2 + 13y + m$ is reciprocal of other, then find the value of 'm'?
Q18.	If the graph of a polynomial intersects the x – axis at only one point, can it be a quadratic polynomial?
Q19.	If α, β are the two zeros of the polynomial $f(y) = y^2 - 8y + a$ and $\alpha^2 + \beta^2 = 40$, find the value of 'a'?
Q20.	Find the zeroes of the quadratic polynomial $5x^2 - 4 - 8x$ and verify the relationship between the zeroes and the coefficient of the polynomial.
Q21.	If α and β are zeroes of the quadratic polynomial $x^2 - 6x + a$; find the value of 'a' if $3\alpha + 2\beta = 20$.
Q22.	Find a quadratic polynomial whose zeroes are –4 and 3 and verify the relationship between the zeroes and the coefficients.
Q23.	If the product of zeroes of the polynomial $ax^2 - 6x - 6$ is 4, find the value of 'a'.
Q24.	Find the quadratic polynomial, the sum of whose zeroes is 8 and their product is 12. Hence, find the zeroes of the polynomial.
Q25.	If a and b are zeroes of the polynomial $x^2+7x+ 7$, find the value of $a^{-1} + b^{-1} - 2ab$

Answers	**1**	B	**2**	A	**3.**	B	**4**	C
	5	D	**6**	D	**7**	B	**8**	D
	9	A	**10**	C	**11**	$3\sqrt{3}, -3\sqrt{3}$	**12**	341
	13	4/3	**14**	-2	**15**	1	**16**	$k(x^2 - 25/2\ x + 41)$
	17	5	**18**	yes	**19**	12	**20**	X=2, x = -2/5
	21	-16	**22**	$x^2 + x - 12$	**23**	-3/2	**24**	$x^2 - 8x + 12$
	25	-15						