Choose the correct option. (2X1=2)

1.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

2.Dividing $x^2 + 3x + k$ by $(x + 2)$ leaves the remainder zero, then the quotient is:.

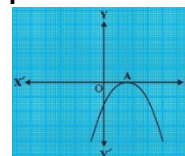(a)$(x + 3)$ (b)$(x – 3)$ (c)$(x + 1)$ (d)$(x + k)$

Fill in the blanks: (2X1=2)

3: If zeroes of $p(x)= 2x^2 - 7x + k$ are reciprocal of each other, then value of k is-----.

4: If 2 is a zero of the polynomial x^3-3x^2+x+a then the value of a is--------.

Answer the following: (2X1=2)

5: Write the number of zeroes from the graph of the polynomial .

6:Write the condition for which the graph of the quadratic polynomial is facing upwards?

Short Answer Type Questions-I: (2X2=4)

7: Using division algorithm, find the dividend, if divisor, quotient and remainder are $(x – 3)$, $(x – 2)$ and 2 respectively..

8: If one of the zero of the polynomial $f(x) = (k^2 + 4)x^2 + 13x + 4k$ is reciprocal of the other then find the value of k.

Short Answer Type Questions-II: (2X3=6)

9: On dividing x^3-3x^2+x+2 by a polynomial $g(x)$ the quotient and the remainder were (x-2) and $– 2x + 4$ respectively. find $g(x)$

10: If one of the zero of the polynomial x^2-4x+1 is $2+\sqrt{3}$, then find the other zero using Division Algorithm.

Long Answer Type Question(1X4=4)

11: Obtain all the zeros of the polynomial $f(x) = 2x^4 + x^3 - 14x^2 - 19x - 6$, if two of its zeros are -2 and -1.

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