PT-1 (2024-25)
CLASS IX.
TIME: 90 minute. Sub. Maths. M.M: 40

Section -A. 1×10=10

Q.1. Which of the following is an irrational:

(a) 0.090909….

(c) 22/7

(b) 0.25

(d) √0.4

Q2. A rational number between √2 and √3 is:

(a) √2+√3/2

(b) √2+√3

(C) 1.5

(d) 1.8

Q3. The value of 1.999 in the form p/q where p and q are integers and q not equal 0, is:

(a) 19/10

(b) 1999/1000

(c) 2

(d) 1/9

Q4. Degree of the polynomial 27 + y 2 - 3y3 + 5y5 is:

(a) 5

(b) 3

(c) 2

(d) 0

Q5. Zero of the polynomial p(x) = 2x + 5 is:

(a) - 2/5

(b) - 5/2

©. 2/5

(d) 5/2

Q6. If (x - 2) is a factor of x3 - 6x 2 + 12x - k then value of kis:

(a) 4

(b) 8

(c) 6

(d) 10

Q7 . Abscissa of a point is negative in:

(a) only IIIrd quadrant

(b) only IInd quadrant

(c) IInd and IIIrd quadrants

(d) IInd and IVth quadrants

Q8. Ordinate of a point is positive in :

(a) Ist and IInd quadrants

(b) only Ist quadrant

(c) only IInd quadrant

(d) IInd and IV quadrants

Q9. y = 0 is the equation of:

(a) x-axis

(b) y-axis

(c) both x-axis and y-axis

(d) a line parallel to y-axis

Q10. x = 0 is the equation of:

(a) x-axis

(b) y-axis

(c) both x-axis and y-axis

(d) a line parallel to x-axis

Section -B 2×5=10

Q11. Find the value of k, if x = 2 y = 1 is a solution of the equation 2x + 3y = k.

Q12. Factorise the following using appropriate identities:
(i) 9x 2 + 6xy + y2

Q13. Factorise the following quadratic polynomials by splitting the middle term :
(i) x2 - 25x + 144

Q14. Prove that 3 + √5 is an irrational number.

Q15. Express the following in the form p/q where pand qare integers and q ne0 :
(i) 0 .overline 001

Section -c 2×5=10

Q(16-17) Assertion-Reason Questions:

■Directions: In the following questions, a statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice as:

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true and R is NOT the correct explanation of A.

(c) A is true but R is false.

(d) A is false and R is true.

Q 16. **Assertion (A):** The points (-3, 8) and (8, - 3) are at different positions in the coordinate plane.
Reason (R): If x≠ y, then position of (x, y) in the cartesian plane is different from the position of (x)

Q17. **Assertion (A):** The point (-6, 0) lies on y-axis and point (0, 7) lies on X-axis.

Reason (R): Every point on the X-axis has zero distance from X-axis and every point on the Y-axis has zero distance from y-axis.

Q(18-20)Case Based Questions:

. Radha distributed chocolates in an orphange, on her birthday, she gave 5 chocolates to each child and 20 chocolates to adults. Taking number of children as x and total chocolates distributed as y.

Q18. Write a linear equation, according to given question :

Q19. If she distributed 145 chocolates, then how many children are there in the orphange?

Q20. If she distributed 205 chocolates, then how many children are there in the orphange?

Section-D. 5×2=10

Q.21 Factorise x3 - 23x2 + 142x - 120

Q22. Verify that:
x3 + y3 + z3 - 3xyz = 1/2(x+y+z) [(x - y)2 + (y - z)2 + (z - x)2].