

1ST TERMINAL EXAM (09.10.2023)

CLASS- IX

SUBJECT - MATHEMATICS

M.M.80

Instructions: *Attempt all the questions.

*Solve all questions carefully.

*Draw graphs wisely.

I. Multiple choice questions .

[25]

1. If x coordinate of a point is zero, then the point lies on:
 - a. First quadrant
 - b. Second quadrant
 - c. X-axis
 - d. Y-axis
2. Signs of the abscissa and ordinate of a point in the second quadrant are respectively:
 - a. +, +
 - b. +, -
 - c. -, +
 - d. -, -
3. If the coordinates of a point are (-3, -4), then it lies in:
 - a. First quadrant
 - b. Second quadrant
 - c. Third quadrant
 - d. Fourth quadrant
4. The linear equation $3x - 11y = 10$ has:
 - a. Unique solutions
 - b. Two solutions
 - c. Infinitely many solutions
 - d. No solutions
5. The solution of equation $x - 2y = 4$ is:
 - a. (0,2)
 - b. (2,0)
 - c. (4,0)
 - d. (1,1)
6. A linear equation in two variables is of the form $ax + by + c = 0$, where
 - (a) $A = 0, c = 0$
 - (b) $A \neq 0, b = 0$
 - (c) $a = 0, b \neq 0$
 - (d) $A \neq 0, b \neq 0$
6. Area of a triangle is equal to:
 - a. Base x Height
 - b. 2(Base x Height)
 - c. $\frac{1}{2}$ (Base x Height)
 - d. $\frac{1}{2}$ (Base + Height)
7. The base of a right triangle is 8 cm and the hypotenuse is 10 cm. Its area will be
 - (a) 24 cm²
 - (b) 40 cm²
 - (c) 13 cm²
 - (d) 80 cm²
8. The collection of information, collected for a purpose is called:
 - a. Mean
 - b. Median
 - c. Mode
 - d. Data
9. What is the class mark of the class interval 90-120?
 - a. 90
 - b. 105
 - c. 115
 - d. 120
10. The difference between the maximum and minimum values of the given observation is called
 - a. Class
 - b. Class interval
 - c. Class mark
 - d. Range
11. The point at which the two coordinate axes meet is called the:
 - a. abscissa
 - b. Ordinate
 - c. Origin
 - d. quadrant
12. A point both of whose coordinates are negative will lie in -
 - a. I quadrant
 - b. II quadrant
 - c. III quadrant
 - d. IV quadrant
13. If y coordinate of a point is zero, then this point always lies:
 - a. In I quadrant
 - b. In II quadrant
 - c. On x-axis
 - d. On y-axis
14. Point (0, -7) lies:
 - a. on the x-axis
 - b. In the second quadrant
 - c. On the y-axis
 - d. in the fourth quadrant
15. In the class intervals 10-20, 20-30, 20 is included in which interval?
 - a. 10-20
 - b. 20-30
 - c. Both the intervals
 - d. None of the intervals
16. Find the maximum value if the range is 38 and the minimum value is 82.
 - a. 60
 - b. 76
 - c. 120
 - d. 82
17. Point (3, 4) lies on the graph of the equation $3y = kx + 7$. The value of k is:
 - a) 4/3
 - b) 5/3
 - c) 3
 - d) 7/3
18. If x and y are both positive solutions of equation $ax + by + c = 0$, always lie in.
 - a) First quadrant
 - b) Second quadrant
 - c) Third quadrant
 - d) Fourth quadrant
19. The triangle whose all sides are equal is called as
 - a). Isosceles triangle
 - b). Right angle triangle
 - c) Equilateral triangle
 - d). None
20. Perimeter of triangle of different sides is.
 - a) $P = a + b + c$
 - b). $P = a + b$
 - c). $P = b + c$
 - d). $P = 2(a + b + c)$

II. Very short answer type questions :

[10]

1. find two solutions for the equation $4x+3y=12$.
2. write each in the form of $ax+by+c=0$ and find the values of a, b and c in each case :
 A) $x=3y$ B) $x-y/5=10$
3. Find the area of a triangle. two sides of which are 8 cm and 11 cm. and the perimeter is 32 CM.
4. Without plotting the points indicate the quadrant in which they will lie. if.
 1. The ordinate is 5 and abscissa is - 3
 2. The abscissa is - 5 and ordinate is -3
 3. The abscissa is - 5 and ordinate is 3
 4. The ordinate is 5 and abscissa is 3

III. Short answer type questions :

[20]

1. Sides of triangle are in the ratio 12: 17 :25 and it's perimeter is 540 cm, find its area.
2. write the shape of the quadrilateral formed by joining (1,1),(6,1),(4,5) and (3,5) on the graph paper.
3. write four solutions for the equation $x+2y=6$.
4. Given below are the sets one by different political parties in the polling outcome of a state assembly elections :

Political Party	A	B	C	D	E	F
Seats Won	75	55	37	29	10	37

1. Draw a bar graph to represent the polling results.
2. Which political party won the maximum number of seats?

IV. Long answer type questions

[25]

1. An isosceles triangle has perimeter 30 cm and each of the equal sides is 12 cm find the area of the triangle.
2. The following table gives the lifetimes of 400 neon lamps :
 - i. Represent the given information with the help of histogram.
 - ii. How many lamps have a lifetime of more than 700 hours?

Life time (In hours)	Number of lamps
300 - 400	14
400 - 500	26
500 - 600	60
600 - 700	86
700 - 800	74
800 - 900	62
900 - 1000	48

Check which of the following are solution of the equation $x - 2y = 4$ and which are not :

- i) (0,2) ii) (2,0) iii) (4,0) iv) (1,1) v) (2, 2)

Q.5: Plot the points (x, y) given in the following table on the plane, choosing suitable units of distance on the axes.

x	-2	-1	0	1	3
y	8	7	-1.25	3	-1

4. define the Bar graph and Histogram.