ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD

Class : 9 **Subject : MATHEMATICS** **Term : FINAL TERM** **Max Marks : 80**

Q 1 : The value of $8^3 - 5^3 - 3^3$ **Marks :** 1

1 . 80

2 . 120

3 . 360 ☑ (This Answer is Correct)

4 . 40

Q 2 : The midvalue of a class is 50 and length of the class is 10, then lower limit of the class is **Marks :** 1

1 . 45 ☑ (This Answer is Correct)

2 . 30

3 . 55

4 . 60

Q 3 : Find the base when logarithm of 216 is 3 **Marks :** 1

1 . 4

2 . 6 ☑ (This Answer is Correct)

3 . 0

4 . 2

Q 4 : The side of a rhombus is 10 cm and if the length of one diagonal is 6cm, then length of the other diagonal is **Marks :** 1

1 . 14 cm

2 . 8 cm

3 . 10 cm

4 . 12 cm ☑ (This Answer is Correct)

Q 5 : The distance between the points (9, 0) and (0, - 12) is **Marks :** 1

1 . 10 units

2 . 12 units

3 . 15 units ☑ (This Answer is Correct)

4 . 11 units

Q 6 : The zeros of the polynomial $x^2 + x$, are **Marks :** 1

1 . 0 , 2

2 . 1 , 2

3 . 0, - 1 ☑ (This Answer is Correct)

4 . 0 , 1

Q 7 : A point is on y axis whose ordinate is 5 and another point is (-3, 1). The distance between them is _____ **Marks :** 1

1 . 10 units

2 . 2 units

3 . 3 units

4 . 5 units ☑ (This Answer is Correct)

Q 8 : The number of rational numbers between two irrational numbers is **Marks :** 1

1 . only two ☑ (This Answer is Correct)

2 . none

3 . infinite

4 . only one

Q 9 : Which of the numbers given below is multiplied with $\sqrt{3}$ to give a rational number **Marks :** 1

1 . $\sqrt{2}$

2 . $\sqrt{3}$

3 . $2\sqrt{3}$ ☑ (This Answer is Correct)

4 . $\sqrt{5}$

Q 10 : The triangle formed by the points (5,0), (-5, 0) and (0,5) is **Marks :** 1

1 . equilateral ☑ (This Answer is Correct)

2 . isosceles

3 . scalene

4 . rhombus

Q 11 : If $2 \times 5^x = 5 \times 2^x$, then the value of x is **Marks :** 1

1 . 0

2 . 2

3 . 1 ☑ (This Answer is Correct)

4 . 5

Q 12 : A point is on y axis whose ordinate is 5 and another point is (-3, 1). The distance between them is _____ **Marks :** 1

1 . 10 units

2 . 2 units

3 . 3 units

4 . 5 units (This Answer is Correct)

Q 13 : In which of the following geometric figures the diagonals intersect each other at right angle? **Marks :** 1

1 . rhombus (This Answer is Correct)

2 . rectangle

3 . trapezium

4 . parallelogram

Q 14 : The ratio of selling price and loss of a thing is 4 : 1. Then the loss percentage is **Marks :** 1

1 . 25%

2 . 15%

3 . 22%

4 . 20% (This Answer is Correct)

Q 15 : The distance between the points (9, 0) and (0, - 12) is **Marks :** 1

1 . 10 units

2 . 12 units

3 . 15 units (This Answer is Correct)

4 . 11 units

Q 16 : If $2 \times 5^x = 5 \times 2^x$, then the value of x is **Marks :** 1

1 . 0

2 . 2

3 . 1 (This Answer is Correct)

4 . 5

Q 17 : If $(3x + 2y - 12)^2 + (x + 2y - 8)^2 = 0$, then the value of x - y is **Marks :** 1

1 . 2

2 . 0

3 . 1

4 . -1 (This Answer is Correct)

Q 18 : Which of the numbers given below is multiplied with √3 to give a rational number **Marks :** 1

1 . √2

2 . √3

3 . 2√3 (This Answer is Correct)

4 . √5

Q 19 : In which of the following geometric figures the diagonals intersect each other at right angle? **Marks :** 1

1 . rhombus (This Answer is Correct)

2 . rectangle

3 . trapezium

4 . parallelogram

Q 20 : The value of 101 x 99 is **Marks :** 1

1 . 9999 (This Answer is Correct)

2 . 9990

3 . 9998

4 . 10001

Q 21 : The triangle produced by joining the points (-3, 1) (1 , -2) and (1, 4) is **Marks :** 1

1 . equilateral

2 . isosceles (This Answer is Correct)

3 . scalene

4 . right angled

Q 22 : If $3^x = 9^y$, then value of x : y is **Marks :** 1

1 . 1 : 1

2 . 1 : 2

3 . 2 : 1 (This Answer is Correct)

4 . 4 : 1

Q 23 : If $(3x + 2y - 12)^2 + (x + 2y - 8)^2 = 0$, then the value of x - y is **Marks :** 1

1 . 2

2 . 0

3 . 1

4 . -1 (This Answer is Correct)

Q 24 : The value of $8^3 - 5^3 - 3^3$ **Marks :** 1

1 . 80

2 . 120

3 . 360 (This Answer is Correct)

4 . 40

Q 25 : The value of 101 x 99 is **Marks :** 1

1 . 9999 (This Answer is Correct)

2 . 9990

3 . 9998

4 . 10001

Q 26 : The vertices of the triangle ABC are (6,5) , (- 3, 8) and (0, - 4). The co ordinates of the centroid of the triangle is _____ **Marks :** 1

1 . (3,1)

2 . (2,3)

3 . (1,1)

4 . (1,3) (This Answer is Correct)

Q 27 : If the co ordinates of A, B and C are (6,0), (-6, 0) and (6,6), then the area of Δ ABC will be **Marks :** 1

1 . 16 sq units

2 . 36 sq units (This Answer is Correct)

3 . 48 sq units

4 . 54 sq units

Q 28 : If the equation 3x + 4y = 5 and 3x + ky = 6 have no solution, then k = **Marks :** 1

1 . -4

2 . 5

3 . 6

4 . 4 (This Answer is Correct)

Q 29 : The triangle formed by the points (5,0), (-5, 0) and (0,5) is **Marks :** 1

1 . equilateral (This Answer is Correct)

2 . isosceles

3 . scalene

4 . rhombus

Q 30 : In a number if digit in the unit's place be y and digit in ten's place be x, then the number will be **Marks :** 1

1 . 10y + x

2 . 10x + y (This Answer is Correct)

3 . xy

4 . x + y

Q 31 : In which quadrant does the point (2 , - 4) lie **Marks :** 1

1 . first

2 . second

3 . third

4 . fourth (This Answer is Correct)

Q 32 : The number of irrational numbers between two rational numbers is **Marks :** 1

1 . none

2 . infinite (This Answer is Correct)

3 . 2

4 . 1

Q 33 : BE and CD are two medians of a Δ ABC. If the length of BC is 11 cm, then the length of DE will be **Marks :** 1

1 . 8 cm

2 . 10 cm

3 . 7 cm

4 . 5 cm (This Answer is Correct)

Q 34 : The permeter of the parallelogram ABCD is 32 cm. If AB = 8.5 cm, then the length of the side AD is **Marks :** 1

1 . 9 cm

2 . 5 cm

3 . 6 cm

4 . 7.5 cm (This Answer is Correct)

Q 35 : The triangle formed by the points (3, 3), (8 , -2) and (-2, - 2) is **Marks :** 1

1 . equilateral (This Answer is Correct)

2 . isosceles

3 . scalene

4 . right angled

Q 36 : The length of the class of 11 - 20 , 21 - 30 , …….is **Marks :** 1

1 . 10 (This Answer is Correct)

2 . 8

3 . 12

4 . 6

Q 37 : If a thing is sold at Rs. 510, the loss is 15%, then the cost of the thing is **Marks :** 1

1 . Rs. 500

2 . Rs. 600 (This Answer is Correct)

3 . Rs. 300

4 . Rs. 400

Q 38 : If the two factors of $m^3 - m$ are m and m - 1 , then the third factor is **Marks :** 1

1 . $m^2 - 1$

2 . m+ 1 (This Answer is Correct)

3 . $m^2 + 1$

4 . m^2

Q 39 : If the greater angle of a parallelogram is 54º more than twice the smaller angle, then the greater angle is **Marks :** 1

1 . 128º

2 . 138º (This Answer is Correct)

3 . 132º

4 . 142º

Q 40 : AD is a median of a Δ ABC, and G is the centroid. Then AD : AG is _____ **Marks :** 1

1 . 2 : 1

2 . 1 : 2

3 . 2 : 3

4 . 3 : 2 (This Answer is Correct)

Q 41 : Perimeter of the parallelogram ABCD is 36 cm. If AB = 9.5 cm, then length of the side AD is **Marks :** 1

1 . 8 cm

2 . 9 cm

3 . 8.5 cm ☑ (This Answer is Correct)

4 . 10 cm

Q 42 : The point where x axis and y axis intersect is called **Marks :** 1

1 . abscissa

2 . ordinate

3 . origin ☑ (This Answer is Correct)

4 . quadrant

Q 43 : (x + 3) is a factor of $x^3 + 6x^2 + 12x + k$, if k is equal to **Marks :** 1

1 . 6

2 . 9 ☑ (This Answer is Correct)

3 . - 6

4 . - 9

Q 44 : The triangle formed by the points (3, 3), (8 , -2) and (-2, - 2) is **Marks :** 1

1 . equilateral ☑ (This Answer is Correct)

2 . isosceles

3 . scalene

4 . right angled

Q 45 : If the points (8,1), (k, -4) and (2, -5) are collinear then the value of k is **Marks :** 1

1 . 3 ☑ (This Answer is Correct)

2 . 0

3 . 2

4 . 1

Q 46 : The co ordinates of the centre of a circle are (0,0) and the cordinates of a point on the circle are (-3,4). The length of the radius of the circle is **Marks :** 1

1 . 5 units ☑ (This Answer is Correct)

2 . 4 units

3 . 3units

4 . 10 units

Q 47 : The length of the class 1 - 5 , 6 - 10, ... is **Marks :** 1

1 . 4.5

2 . 4

3 . 5 (This Answer is Correct)

4 . 5.5

Q 48 : The length of the class of 11 - 20 , 21 - 30 , ...is **Marks :** 1

1 . 10 (This Answer is Correct)

2 . 8

3 . 12

4 . 6

Q 49 : AD is a median of a Δ ABC, and G is the centroid. Then AD : AG is _____ **Marks :** 1

1 . 2 : 1

2 . 1 : 2

3 . 2 : 3

4 . 3 : 2 (This Answer is Correct)

Q 50 : The point of intersection of the three perpendiculars drawn from the vertices of a triangle is called **Marks :** 1

1 . centroid

2 . incentre

3 . orthocentre (This Answer is Correct)

4 . circumcentre

Q 51 : The range of the statistical data 9 , 7 , 11 , 8 , 6 . 18 , 13 , 21 , 14 , 5 , is **Marks :** 1

1 . 14

2 . 16 (This Answer is Correct)

3 . 12

4 . 10

Q 52 : The point where x axis and y axis intersect is called **Marks :** 1

1 . abscissa

2 . ordinate

3 . origin (This Answer is Correct)

4 . quadrant

Q 53 : The diagonals of a parallelogram are **Marks :** 1

1 . equal

2 . unequal (This Answer is Correct)

3 . parallel

4 . perpendicular

Q 54 : The co ordinates of P, Q, R and S are (0,3), (3,3), (3,0) and (0,0). Joining these four points the diagram PQRS is **Marks :** 1

1 . rhombus

2 . rectangles

3 . square (This Answer is Correct)

4 . circle

Q 55 : There is 5% loss if an article is sold at Rs. 22.80. The cost price of the article is **Marks :** 1

1 . Rs. 30

2 . Rs. 12

3 . Rs. 24 (This Answer is Correct)

4 . Rs. 20

Q 56 : The length of the class 1 - 5 , 6 - 10, ... is **Marks :** 1

1 . 4.5

2 . 4

3 . 5 (This Answer is Correct)

4 . 5.5

Q 57 : There is 5% loss if an article is sold at Rs. 22.80. The cost price of the article is **Marks :** 1

1 . Rs. 30

2 . Rs. 12

3 . Rs. 24 (This Answer is Correct)

4 . Rs. 20

Q 58 : The distance of the point (- 5 , - 7) from the y axis is **Marks :** 1

1 . 5 units (This Answer is Correct)

2 . 7 units

3 . 2 units

4 . 12 unts

Q 59 : The point of intersection of the three perpendiculars drawn from the vertices of a triangle is called **Marks :** 1

1 . centroid

2 . incentre

3 . orthocentre (This Answer is Correct)

4 . circumcentre

Q 60 : The number of irrational numbers between two rational numbers is **Marks :** 1

1 . none

2 . infinite (This Answer is Correct)

3 . 2

4 . 1

Q 61 : If there is 20% profit on selling price, then the rate of profit on cost price is **Marks :** 1

1 . 25% (This Answer is Correct)

2 . 18%

3 . 24%

4 . 22%

Q 62 : The co ordinates of a point which is equidistant from the points (1, 0) and (-1, 4) is **Marks :** 1

1 . (- 4, 4)

2 . (4, - 4)

3 . (4,4) (This Answer is Correct)

4 . (- 4, - 4)

Q 63 : If the measure of an angle of a parallelogram is half of its complementary angle, then the complementary angle is **Marks :** 1

1 . 120º (This Answer is Correct)

2 . 30º

3 . 150º

4 . 60º

Q 64 : If the points (-4,0) , (4, 0) and (6,k) are collinear then the value of k is **Marks :** 1

1 . 3

2 . 2

3 . 0 (This Answer is Correct)

4 . 1

Q 65 : The perpendicular distance of the point (5,7) from y axis is **Marks :** 1

1 . 5 (This Answer is Correct)

2 . 7

3 . 12

4 . 2

Q 66 : If a + b - c = 9 and $a^2 + b^2 + c^2 = 31$, then the value of bc + ca - ab is **Marks :** 1

1 . -20

2 . 20

3 . -25 (This Answer is Correct)

4 . 25

Q 67 : If the straight line 2x + 3y + c = 0 passes through the point (1 , - 2) then the value of c is _____ **Marks :** 1

1 . 5 cm

2 . 4 cm (This Answer is Correct)

3 . 7 cm

4 . 12 cm

Q 68 : The co ordinates of a point which is equidistant from the points (1, 0) and (-1, 4) is **Marks :** 1

1 . (- 4, 4)

2 . (4, - 4)

3 . (4,4) (This Answer is Correct)

4 . (- 4, - 4)

Q 69 : Between the same base and same parallels, the area of the triangle will be _____ the area of the parallelogram **Marks :** 1

1 . half (This Answer is Correct)

2 . equal

3 . twice

4 . thrice

Q 70 : Between the same base and same parallels, the area of the triangle will be _____ the area of the parallelogram **Marks :** 1

1 . half (This Answer is Correct)

2 . equal

3 . twice

4 . thrice

Q 71 : The point (0 , - 5) will lie on **Marks :** 1

1 . x axis

2 . 2nd quadrant

3 . y axis (This Answer is Correct)

4 . 4th quadrant

Q 72 : If the straight line 2x + 3y + c = 0 passes through the point (1 , - 2) then the value of c is _____ **Marks :** 1

1 . 5 cm

2 . 4 cm (This Answer is Correct)

3 . 7 cm

4 . 12 cm

Q 73 : The solution of the equations 2x + 5y = 8 is **Marks :** 1

1 . -5 (This Answer is Correct)

2 . 5

3 . 4

4 . -4

Q 74 : The point (0 , - 5) will lie on **Marks :** 1

1 . x axis

2 . 2nd quadrant

3 . y axis (This Answer is Correct)

4 . 4th quadrant

Q 75 : A is a point on y axis whose ordinate is 4, and B is a point on x axis whose abscissa is -3. Then the length of AB is **Marks :** 1

1 . 3 units

2 . 5 units (This Answer is Correct)

3 . 4 units

4 . 8 units

Q 76 : If the line joining the points A (-1, 5/3) and B (a, 5) is divided by the y axis in the ratio 1 : 3, then the value of a is _____ **Marks :** 1

1 . 6

2 . 2

3 . 3 (This Answer is Correct)

4 . 4

Q 77 : If the ratio of cost price and selling price is 4 : 5, then the profit percentage is **Marks :** 1

1 . 20%

2 . 10%

3 . 25% (This Answer is Correct)

4 . 15%

Q 78 : If the straight line 3x + 6y + 5 = 0 and 2x - my + 5 = 0 are parallel, then the value of m is **Marks :** 1

1 . 4

2 . - 1

3 . 1

4 . - 4 (This Answer is Correct)

Q 79 : The sum of the factors of $a^2 - b^2 - c^2 + 2bc$ is **Marks :** 1

1 . 2a (This Answer is Correct)

2 . a + b + c

3 . a - b - c

4 . a - b + c

Q 80 : The solution of the equations 2x + 5y = 8 is **Marks :** 1

1 . -5 (This Answer is Correct)

2 . 5

3 . 4

4 . -4
