



B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL

ANNUAL EXAMINATION (2025-26)

MATHEMATICS

Class: VI

Date: 21.03.26

Admission no:

Set-2

Time: 3 hrs.

Max Marks: 80

Roll no:




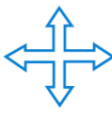

General Instructions:

- This question paper consists of FIVE sections
- All answers must be correctly numbered as in the question paper and written in the answer sheet.
- Write neatly and draw diagrams wherever necessary.

Section A

Choose the correct answer

1 x 20 = 20

1. A maximum of _____ diagonals can be drawn in a rectangle,
(a) Three (b) Two (c) One (d) Infinite
2. A figure made by only half circles is called _____,
(a) line (b) rectangle (c) wavy wave (d) square
3. A circle has _____
(a) No centres (b) no radius (c) a fixed radius (d) two centre
4. A protractor is used to _____ angles in degrees.
(a) dance (b) sing (c) crawl (d) measure
5. Pictorial representation of data using symbols is known as _____
(a) Bar graph (b) Pictograph (c) Pie chart (d) None of these
6. A figure with rotational symmetry looks the same after a 180° rotation.
(a)  (b)  (c)  (d) 
7. How many lines of symmetry and angles of symmetry does Ashoka Chakra have?
(a) 12 (b) 24 (c) 48 (d) 10 
8. If each side of a square is halved then its area will be _____.
(a) same (b) one-fourth (c) half (d) double
9. The perimeter of a regular pentagon with each side measuring 5 cm is _____.
(a) 20 cm (b) 25 cm (c) 30 cm (d) 35 cm

10. What is the area of a square plot of side 25 m?
 (a) 100 m^2 (b) 200 m^2 (c) 600 m^2 (d) 625 m^2
11. Fractions with the same denominators are called _____ fraction.
 (a) Like (b) unlike (c) unit (d) proper
12. If 1 glass of juice is equally shared between 3 children, each child gets _____ glass of juice.
 (a) $\frac{1}{4}$ (b) $\frac{1}{3}$ (c) $\frac{1}{2}$ (d) $\frac{1}{6}$
13. When a figure is rotated by 180° and it looks exactly the same, the figure has _____ symmetry.
 (a) no (b) reflection (c) zero (d) rotational
14. The set of negative natural numbers and whole numbers is called _____ numbers
 (a) natural (b) integers (c) positive (d) unique
15. A fraction with numerator greater than the denominator is called an _____
 (a) improper (b) unlike (c) unit (d) proper
16. The greatest negative integer is _____
 (a) -100 (b) -9 CD (c) -1 (d) Does not exist
17. The number which is neither positive nor negative is _____
 (a) 1 (b) 5 (c) 0 (d) 10
18. The smallest positive integer is _____
 (a) 0 (b) 1 (c) 100 (d) 9
19. Assertion (A): If the radius of a circle is 5 cm, then its diameter is 10 cm.
 Reason (R) : The diameter is equal to two times the radius.
 (a) Both A and R are true, and R is the correct explanation of A.
 (b) Both A and R are true, but R is not the correct explanation of A.
 (c) A is true, but R is false.
 (d) A is false, but R is true.
20. Assertion (A) : An integer between -3 and -1 is -2 .
 Reason (R) : This collection of numbers is known as integers.
 (a) Both A and R are true, and R is the correct explanation of A.
 (b) Both A and R are true, but R is not the correct explanation of A.
 (c) A is true, but R is false.
 (d) A is false, but R is true.



Section B

Do as directed

2 x 5 = 10

21. Complete these expressions using $<$, $=$ or $>$.

(a) $(-11) + (-15)$ _____ $11 + 15$

(b) $(-71) + (+9)$ _____ $(-81) + (-9)$

22. What is the length of the wooden strip required to frame a photograph of length 30 cm and breadth 10 cm?



or

The area of a rectangular garden 50 m long is 300 sq. m.. Find the width of the garden?

23. Construct a line segment of length 5.6 cm using ruler and compass.

24. Ria scored 25 marks out of 30 in math's test and 35 marks out of 40 in science test. Represent the scores in fractional simplest form.

or

Compare the following fractions and justify your answers:

(a) $\frac{12}{5}$ $\frac{12}{3}$ (b) $\frac{7}{3}$ $\frac{2}{3}$

25. Draw a right angle and label it as $\angle ABC$

Section C

Solve the following

3 x 6 = 18

26. Construct a rectangle with sides 4 cm and 6 cm. Verify if the diagonals are equal.

27. The adjoining figure shows the different variety of apples at a food store.

Observe the pictograph carefully and answer the following questions:

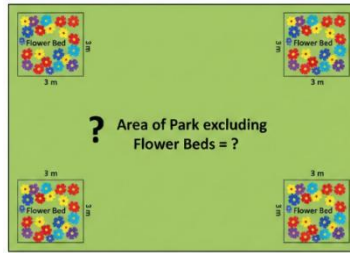
(a) Which variety of apple is available in maximum number at the food store?

(b) Which variety of apple is available in minimum number?

(c) How many apples of Golden Delicious variety is available at the store?



28. A rectangular park has a length of 75 meters and a breadth of 50 meters. At each of the four corners of the park, there is a square-shaped flower bed with a side length of 3 meters. Find the area of the park excluding the area occupied by the flower beds.

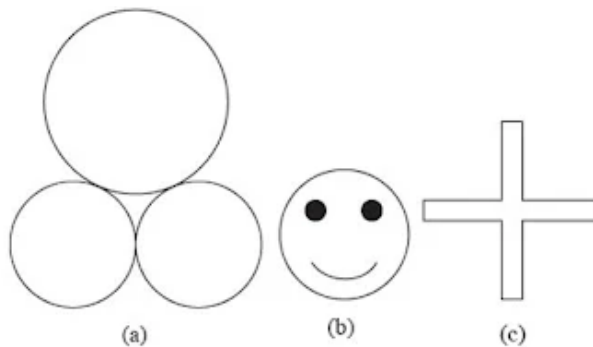


OR

Perimeter of a square and a rectangle is same. If a side of the square is 12 cm and one side of the rectangle is 16 cm, find the area of the rectangle.

29. Suppose you start with ₹ 0 in your bank account, and then you have credits of ₹ 30, ₹ 40, and ₹ 50, and debits of ₹ 40, ₹ 50, and ₹ 60. What is your bank account balance now?

30. Draw the line (s) of symmetry for each of the following figures :



31. Identify the following fractions:

- (a) 6 hours of a day.
 (b) 750 gms of a kilogram.
 (c) 300 paise of a ₹ 3

OR

Find 3 equivalent fraction of (a) $\frac{2}{7}$ (b) $\frac{3}{2}$

Section D

Do as directed

5 x 4 = 20

32. Draw using rounder , protractor and ruler

A line segment of 5 cm. At its midpoint, draw a perpendicular line. What type of angle is formed between the two line segments?

OR

A pair of Parallel lines . What type of angle is formed between the two line segments?

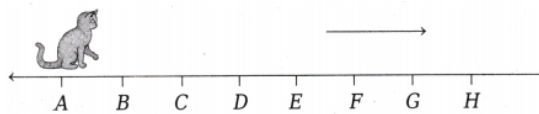
33. Complete the grid to make the required border sums:

-10		
		-5
9		

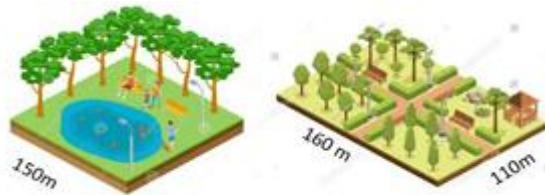
Border sum is +4

or

The figure shows the position of a playing kitten. For every jump, it takes 3 steps ahead and 2 steps back. If the kitten is at the point A now, after how many jumps will it be at point F?



34. Aman and Riya decided to include walking as part of their daily exercise routine. Aman walks around a square park with each side measuring 150 meters, while Riya walks around a rectangular park that is 180 meters long and 160 meters wide.



- If Aman completes 5 rounds around the square park, calculate the total distance he covers.
- If Riya completes 3 rounds around the rectangular park, determine the total distance she walks.
- If both Aman and Riya complete just one round each, find out who covers a greater distance and by how much.

35. Complete the addition subtraction box.

	+ →	
	$\frac{2}{3}$	$\frac{4}{3}$
	$\frac{1}{3}$	$\frac{2}{3}$
- ↓		

Section E

Solve the following

4 x 3 = 12

36. A student is asked to construct a rectangle using geometrical construction. He is given the following information. One side of the rectangle is 5 cm. The length of the diagonal of the rectangle is 7 cm. To construct the rectangle accurately, the student follows a step-by-step geometrical method using a ruler and compass. Help the student for the construction.

37. The following table shows the monthly expenditure of a family on various items:

Item	Food	Education	House Rent	Entertainment	Miscellaneous
Expenditure	4500	4000	5000	2000	3500

Draw a bar graph to represent the data.

38. A school canteen prepared fruit juice for 10 students. The flask had 5 glasses of juice. The teacher planned to distribute the juice equally, similar to the “sharing equally” activity. Later, 5 more students joined, and they again shared the same amount of juice equally. The teacher wanted students to compare the two fractions, understand equivalent fractions, and decide which group received more juice per student. They discussed whether increasing the number of children decreases each share.



- Fraction of juice per child in first group.
- Fraction of juice per child in second group.
- Which group gets more?
- Explain using equivalent fractions.

ALL THE BEST