**ST THOMAS SCHOOL SAHIBABAD**
**WORKSHEET**
**ANNUAL EXAMINATION (2025- 26)**
**CLASS VI**
**MATHEMATICS (041)**

**SECTION A**

**(Choose the correct option)**

| | | | | | |
|---|---|---|---|---|---|
| 1. | Which of the following numbers lie to the left of zero on the number line? | | | | [1] |
| | (A)2 | (B)1 | (C) −2 | (D)0 | |
| 2. | The palindrome number among the following numbers is | | | | [1] |
| | (A) 1234 | (B) 1223 | (C) 1331 | (D) 1201 | |
| 3. | The frequency of 5 from the set of data 5, 2, 5, 6, 5 is | | | | [1] |
| | (A)2 | (B) 6 | (C)5 | (D) 3 | |
| 4. | The correct order of steps to represent data in a bar graph is | | | | [1] |
| | (A) Draw bars → collect data → label axes<br>(B) Collect data → draw bars → label axes<br>(C) Collect data → choose scale → draw bars<br>(D) Choose scale → collect data → draw bars | | | | |
| 5. | Number of unit squares on a square field of area 50 square unit will be | | | | [1] |
| | (A) 50 | (B) 25 | (C) 48 | (D) 49 | |
| 6. | The money that you have deposited in your account will be | | | | [1] |
| | (A) debited | (B) credited | (C) unnoticed | (D) rejected | |
| 7. | The greatest number among the following numbers is | | | | [1] |
| | (A) − 3 | (B) − 2 | (C) Both (A) and (B) | (D) − 1 | |
| 8. | Tally marks are recorded in bunches of _____. | | | | |
| | (A)2 | (B)3 | (C)4 | (D)5 | |
| 9. | Number of tiles of side 2m which can be put on a wall of area 100 square m is | | | | [1] |
| | (A) 75 | (B)25 | (C) 50 | (D) 98 | |
| 10. | A diagonal of a square divides the opposite angles of the square into | | | | |
| | (A) 60°, 30° | (B) 50°, 40° | (C) 45°, 45° | (D) 90°, 90° | |
| 11. | While finding the Kaprekar constant, the starting four-digit number should | | | | [1] |
| | (A) have all digits the same<br>(B) be divisible by 9 | | (C) have at least two different digits<br>(D) be a palindrome | | |
| 12. | The best situation which represents a negative integer is | | | | [1] |
| | (A) Height of a mountain<br>(B) Money deposited in a bank | | (C) Temperature 5°C above zero<br>(D) Temperature 5°C above zero | | |

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| 13. | The smallest 3-digit number having digit sum 16 is | |
| | A) 268 B) 853 C) 196 D) 169 | |
| **From Q.14 to Q.18 a statement of assertion (A) is followed by a statement of reason(R). Choose the correct option.** | | |
| | (A) Both A and R are true, and R is the correct explanation of A.<br>(B) Both A and R are true, but R is not the correct explanation of A.<br>(C) A is true, but R is false.<br>(D) A is false, but R is true. | |
| 14. | Assertion (A): A bar graph is suitable for representing data related to categories.<br>Reason (R): In a bar graph, the height of each bar represents the frequency or value of a category. | [1] |
| 15. | Assertion (A): The frequency of a data set may not be unique.<br>Reason (C): More than one observation can occur the same maximum number of times in a data set. | [1] |
| 16. | Assertion (A): Every even number greater than 2 can be expressed as the sum of two odd numbers.<br>Reason:(R): The sum of two different odd numbers is always even. | [1] |
| 17. | Assertion (A): Two rectangles having the same perimeter can have different areas.<br>Reason (R): The area of a rectangle depends not only on their sum but also on the product of its length and breadth. | [1] |
| 18. | Assertion (A): If the length and breadth of a rectangle are doubled, its perimeter also becomes doubled.<br>Reason (R): The perimeter of a rectangle is given by the formula $2(l + b)$ | [1] |
| | **SECTION B** | |
| 19. | Subtract $-100$ from the sum of $-25$ and 10. | [2] |
| 20. | The temperature of a city in the morning was $-5°C$. By afternoon, the temperature increased by 9°C. What was the temperature in the afternoon? | [2] |
| 21. | On a number line, Rohan moves 5 steps to the right from zero and then 8 steps to the left. Give a mathematical expression for Rohan's movement and his final position. | [2] |
| 22. | The perimeter of a square is 48 cm. Find the area of the square. | [2] |
| 23. | Write the integers between $-10$ and $-15$ in descending order. | [2] |
| 24. | Two cities report temperatures of –4°C and 3°C. Without using a thermometer diagram, explain which city is colder. | [2] |
| | **SECTION C** | |
| 25. | Draw a neat diagram of a rectangular playground whose length is 24 m and breadth is 14 m. Using the diagram, find the perimeter of the playground. If a wire is used to fence the playground twice around, calculate the total length of wire | [3] |
| 26. | A lift is on the ground floor, represented by 0 on the number line. It goes down to 4 floors and then goes up to 7 floors. Represent each movement on a number line and find the final position of the lift. | [3] |
| 27. | Construct a rectangle of length 5.5 cm and breadth 3.5 cm using compasses and protractor. | [3] |

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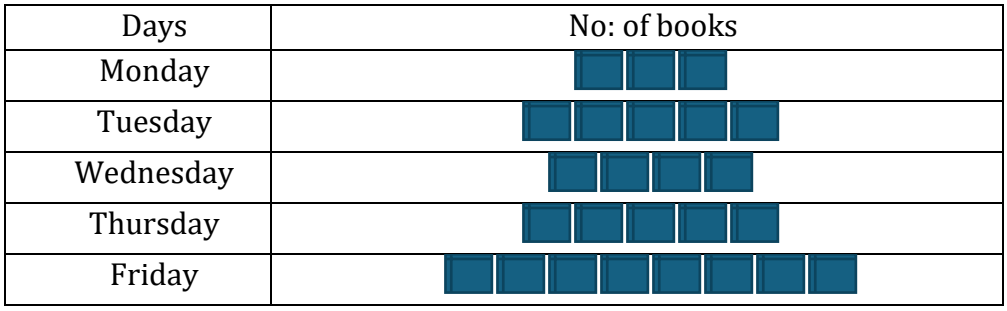
| 28. | A submarine is 120 m below sea level. It rises 45 m and then dives again by 30 m.<br>(a) Represent each position using integers.<br>(b) Find the final position of the submarine. | [3] |
| 29. | Observe the integers –6, –2, 0, 3, and 7.<br>(a) Arrange them on a number line.<br>(b) Identify the greatest and the smallest integer. | [3] |
| 30. | A farmer has 24 m of wire to fence a rectangular field. If the length of the field is 8 m, find its breadth. | [3] |
| 31. | Draw a circle of radius 3 cm. Mark two points on the circle and join them to the centre. What do you observe about the lengths of these line segments? | [3] |
| 32. | Construct a rectangle of length 5.5 cm and breadth 3.5 cm using ruler, compasses and protractor. | [3] |
| | **SECTION D** | |
| 33. | A school librarian recorded the number of storybooks borrowed by students from Class 6 for one week using a pictograph. Based on this pictograph, answer the following questions:<br>One symbol,  = 4 books<br>  | |
| (i) | How many storybooks were borrowed on Tuesday? | [1] |
| (ii) | On which day were the maximum number of books borrowed? | [1] |
| (iii) | Find the total number of storybooks borrowed during these five days. | [2] |
| 31. | The length and breadth of a rectangular garden are 15 m and 10 m respectively. | |
| (i) | Find the area of the garden. | [1] |
| (ii) | If a path of width 1 m is made all around the inside of the garden, find the area of the path. | [1] |
| (iii) | If the cost of tiling the path is ₹ 10 per square meter, find the total cost of tiling the path. | [2] |
| 34. | During a maths activity, a teacher asks students to draw a circle using a compass. Riya draws a circle with centre O and radius 4 cm. She then marks three different points A, B, and C on the circle and joins them to the centre O. | |
| (i) | Write the measurements of OA, OB, and OC. | [1] |
| (ii) | Are all these line segments equal? Why? | [1] |
| (iii) | Draw line segment AD (The point 'D' lies on the circle) which passes through 'O' and write the length of AD. | [2] |

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| 35. | The teacher asks the students to choose a number, reverse its digits, and add it to the original number. Meena starts with the number 58 and follows the steps. | |
| (i) | Write the reverse of 58 and find the sum of the number and its reverse. | |
| (ii) | Check whether the result obtained in part (a) is a palindrome. Give reason. | |
| (iii) | Write one example for a palindrome number. | |

**SECTION E**

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| 36. | The length of one side of square park is 40 m. A walking path of uniform width is constructed all around the inside of the park. If the width of the path is 2 m, find the area of the walking path. Also find the perimeter of the outer boundary of the park. | [5] |
| 37. | Take any four-digit number having at least two different digits. Arrange its digits in descending order and then in ascending order. Subtract the smaller number from the larger one. Repeat this process with the new number obtained until you reach the Kaprekar constant. Write all the steps clearly and identify the Kaprekar constant. | [5] |
| 38 | Danish has a rectangular field having an area of 750 $m^2$ and length 25 m. He wants to make a square field whose perimeter is equal to the perimeter of the rectangular field. Find the perimeter of the rectangular field. What would be the cost of fencing square field, if the fence costs ₹40 per meter? | [5] |
| 39. | A school plans to make a rectangular vegetable garden for students. The length of the garden is 15 m and the breadth is 5 m. Find the perimeter and area of the garden<br>If the school wants to put a fence around the garden, explain why the perimeter is used and not the area. | [5] |
| 40. | Draw a bar graph for the given data: | [5] |

| CLASSES | NO: OF STUDENTS |
|---|---|
| VI | 90 |
| VII | 100 |
| VIII | 95 |
| IX | 110 |
| X | 105 |