

केन्द्रीय विद्यालय संगठन, कोलकाता संभाग

KENDRIYA VIDYALAYA SANGATHAN, KOLAKATA REGION

अर्ध वार्षिक परीक्षा / HALY YEARLY EXAMINATION, 2026-27

कक्षा/ CLASS :VI

समय/ Time: 02:30 घंटे/ Hours

विषय/ SUBJECT : गणित / MATHEMATICS

अधिकतम अंक/ Max. Marks: 60

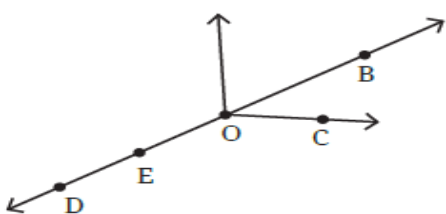
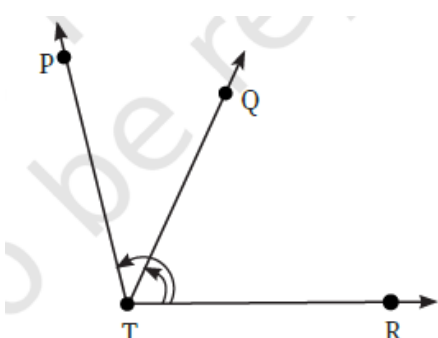
GENERAL INSTRUCTIONS:

1. All Questions are compulsory.
2. This Question Paper has 5 Sections A, B, C, D and E.
3. Section A has 12 MCQs carrying 01 mark each .
4. Section B has 6 very short answer questions carrying 02 marks each.
5. Section C has 6 short answer questions carrying 03 marks each.
6. Section D has 2 long answer questions carrying 05 marks each.
7. Section E has 2 Case Based questions carrying 04 marks each.
8. There is no overall choice. However, an internal choice has been provided in 2 questions in Section B, 1 question in Section C, 1 question in Section D and one subpart each in questions of Section E.
9. Draw neat figures wherever required.

S.NO	QUESTIONS	MARKS
SECTION-A		
1	How many 4- digit numbers are there : (A) 900 (B) 8999 (C) 899 (D) 9000	1
2	Which type of angle is shown by the hands of the clock in the given figure? (A) Acute (B) Right (C) Obtuse (D) Reflex 	1
3	If in a pictograph,  = 56 children, then  = children. (A) 52 (B) 50 (C) 46 (D) 42	1
4	Which numbers completes the pattern: 1, 1, 2, 3, 5, 8, __, __? (A) 10, 18 (B) 12, 20 (C) 13, 21 (D) 15, 23	1
5	Which of the following number is called KAPREKAR constant? (A) 6174 (B) 1476 (C) 6741 (D) 7461	1
6	Which of the following is not a triangular numbers. (A) 3 (B) 6 (C) 10 (D) 16	1
7	Which pair of numbers are co- prime : (A) 15 and 37 (B) 9 and 24 (C) 14 and 35 (D) 81 and 18	1
8	Prime factorisation of 24 is (A) 4×6 (B) $2 \times 2 \times 2 \times 3$ (C) 2×12 (D) 3×8	1
9	In a bar graph the width of the rectangle is :	1

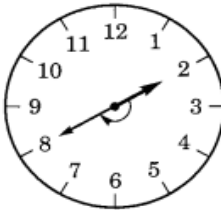
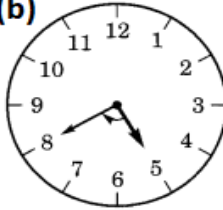
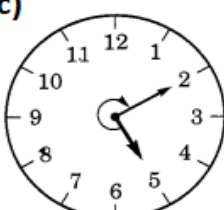
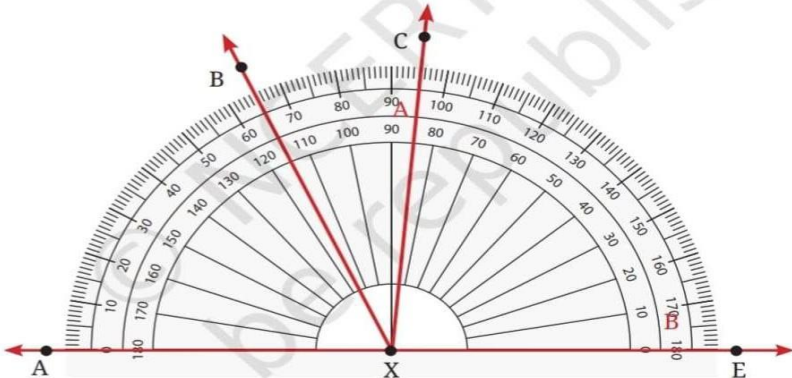
	(A) Unequal (B) Increasing (C) Decreasing (D) Equal	
10	Sheetal marked two points on a piece of paper. How many lines can be drawn that pass through both of the points? (A) 1 (B) 2 (C) 0 (D) infinite	1
11	Which of the following is not an example of parallel lines ? (A) Tree and ground (B) railway tracks (C) opposite sides of a room (D) opposite edges of a table	1
12	Write the number represented by the tally mark  (A) 5 (B) 6 (C) 7 (D) 8	1

SECTION-B

13	Draw the next figure in the sequence given below. Also write the name of the shape.  Triangle Quadrilateral Pentagon 	2
14	In the given figure, name (a) Two rays (b) Two line segments 	2
15	Find all multiples of 40 that lie between 310 and 450.	2
16	What is the sum of the smallest and largest 5 – digit palindrome? What is their difference? Or, We are the group of 5-digit numbers between 35,000 and 75,000 such that all of our digits are odd. Who is the largest number in our group? Who is the smallest number in our group?	2
17	Write two numbers whose product is 10000. The two numbers should not have 0 as their units digit.	2
18	Draw and label an angle with arms ST and SR . Or, Name the angles marked in the given figure. 	2

SECTION-C

19	Fill the table below with only 4-digit numbers such that the supercells are exactly the coloured cells. <table><tr><td>5346</td><td></td><td>1258</td><td></td><td></td><td></td><td>9635</td><td></td></tr></table>	5346		1258				9635		3
5346		1258				9635				
20	Write an example for each of the below scenarios whenever possible. (a) 5 digit numbers + 5 digits number to give a 5-digit sum more than 50,000. (b) 4 digit + 4 digit to give a 5 digit sum.	3								
21	Sushri Sandhya asked her students about the sizes of the shoes they wear. She noted the	3								

	data on the board. 4 ,5 ,3, 4 ,3 ,4, 5 ,5, 4 ,5 ,5, 4, 5, 6 ,4, 3, 5, 6 ,4 , 4 ,5 ,7 ,5 ,6, 4, 5 Prepare a frequency distribution table for the data.																	
22	In the given figure, the hands of a clock make different angles at different time. Write the angle between the hands of the given clocks and also write its type. (a)  (b)  (c)  Or, Using the figure below, find the degree measure of: (i) $\angle BXC$ (ii) $\angle AXC$ (iii) $\angle AXB$ 	3																
23	What happens when you add up pairs of consecutive triangular numbers? That is, take $1 + 3$, $3 + 6$, $6 + 10$, $10 + 15$, ... ? Which sequence do you get? Can you explain it with a picture?	3																
24	Fill the grid with prime numbers only so that the product of each row is the number to the right of the row and the product of each column is the number below the column. <table><tr><td></td><td></td><td></td><td>75</td></tr><tr><td></td><td></td><td></td><td>42</td></tr><tr><td></td><td></td><td></td><td>102</td></tr><tr><td>170</td><td>30</td><td>63</td><td></td></tr></table>				75				42				102	170	30	63		3
			75															
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SECTION-D																		
25	A survey of 120 school students was conducted to find out which activity they preferred to do in their free time: <table><thead><tr><th>Preferred Activity</th><th>Number of Students</th></tr></thead><tbody><tr><td>Playing</td><td>45</td></tr><tr><td>Reading story books</td><td>30</td></tr><tr><td>Watching TV</td><td>20</td></tr><tr><td>Listening to music</td><td>10</td></tr><tr><td>Painting</td><td>15</td></tr></tbody></table>	Preferred Activity	Number of Students	Playing	45	Reading story books	30	Watching TV	20	Listening to music	10	Painting	15	5				
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	Draw a bar graph to illustrate the above data taking the scale of 1 unit length = 5 students.	
26	Mark any four points on your paper so that no three of them are on one line. Label them A, B, C, D. Draw all possible lines going through pairs of these points. How many lines do you get? Name them. How many angles can you name using A, B, C, D? Write them all down, and mark each of them with a curve. Or, Draw angles of the following degree measures using a protractor : a. 140° b. 35°	5

SECTION-E

27	In a newly constructed building, a painter was assigned to decorate its 36 walls using a specific stripe pattern for aesthetic appeal. Each wall was to be painted in a repeating sequence of 2 blue stripes followed by 4 red stripes. The owner wanted the pattern consistent throughout the building, making accurate pattern calculation essential for error-free decoration. (a) How many blue stripes will be needed? (b) How many red stripes will be needed? (c) Which stripe colour will be at 35th position? Or, (d) Which stripe colour will be at 28th position?	1+1+2																		
28	The following pictograph shows the number of tractors in five different villages. <table><thead><tr><th>Villages</th><th>Number of Tractors</th><th>( = 1 Tractor)</th></tr></thead><tbody><tr><td>Village A</td><td></td><td></td></tr><tr><td>Village B</td><td></td><td></td></tr><tr><td>Village C</td><td></td><td></td></tr><tr><td>Village D</td><td></td><td></td></tr><tr><td>Village E</td><td></td><td></td></tr></tbody></table> Observe the pictograph and answer the following questions— (a) Which village has the smallest number of tractors? (b) Which village has the most tractors? (c) Find the total number of tractors in all villages? Or, (d) Kamal says, “Village D has half the number of tractors as Village E.” Is he right? Show your work.	Villages	Number of Tractors	( = 1 Tractor)	Village A			Village B			Village C			Village D			Village E			1+1+2
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