

केन्द्रीय विद्यालय संगठन कोलकाता संभाग
KENDRIYA VIDYALAYA SANGATHAN, KOLKATA REGION

सत्रांत परीक्षा / SESSION ENDING EXAMINATION, 2025-26

कक्षा / CLASS-VIII

अधिकतम अंक/Max. Marks: 60

विषय/Sub.: गणित / MATHEMATICS

समय/Time: 2 ½ घंटे /Hrs.

GENERAL INSTRUCTIONS:

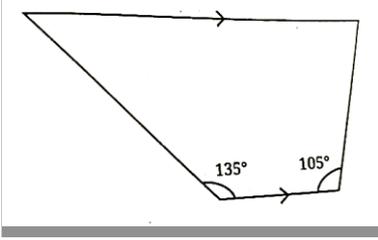
1. All questions are compulsory.
2. Section A contains 14 multiple choice questions of 1 mark each.
3. Section B contains 4 very short answer questions of 2 marks each.
4. Section C contains 5 short answer questions of 3 marks each.
5. Section D contains 3 long answer questions of 5 marks each.
6. Section E contains 2 case-based questions of 4 marks each.

Q.No.	QUESTION	MARKS
SECTION – A (14 MARKS)		
1	When a rectangular sheet is folded along its diagonal, two triangles are formed. Which of the following triangle cannot be formed: a) Scalene b) Isosceles c) Right-angled d) Equilateral	1
2	What is the divisibility rule for 9? a) A number is divisible by 9 if its unit's digit is 9 or 0. b) A number is divisible by 9 if the sum of its digits is divisible by 9. c) A number is divisible by 9 if it is an even number. d) A number is divisible by 9 if its last two digits are divisible by 9.	1
3	Given that $35 \times 75 = 2625$: if 75 is increased by 1, the product will increase by a) 45 b) 75 c) 35 d) 85	1
4	The ratio of two numbers is 3 : 5. If their sum is 64, what is the smaller number? a) 20 b) 24 c) 40 d) 44	1
5	Nandini has 25 marbles, of which 15 are white. What percentages of her marbles are white? a) 65 b) 70 c) 60 d) 90	1
6	A triangle in which angles are in the ratio 2 : 3 : 4. What is the measure of the greatest angle? a) 80 b) 40 c) 90 d) 60	1
7	How can a number that leaves a remainder of 3 when divided by 5 be expressed algebraically? a) $3k+5$ b) $5k+3$ c) $5k-3$ d) $3k-5$	1
8	What can be said about the statement: "The sum of a multiple of 6 and a multiple of 3 is a multiple of 9"? a) Always true b) Sometimes true c) Never true d) Insufficient data	1

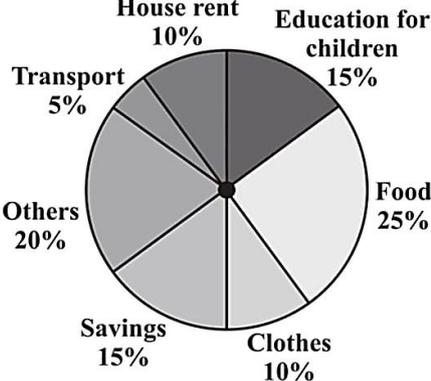
9	A square garden has its side equal to the sum of the width of two smaller paths of p and q metre respectively. The area of the square garden is a) $p^2 - q^2$ b) $p^2 + q^2$ c) $(p + q)^2$ d) $(p - q)^2$	1						
10	The number of students in classes A and B are in the ratio 4 : 5. If 8 students are shifted from class B to A, the ratio becomes 1 : 1. How many students were there in class B initially? a) 65 b) 72 c) 80 d) 90	1						
11	A building plot is in the shape of a parallelogram. Which of the following is always true? a) All sides equal b) Opposite sides equal and parallel c) Diagonals are equal d) All angles are 90°	1						
12	The price of a mobile phone is ₹8,000. A GST of 18% is added to the price. Which of the following gives the final price of the phone including the GST? a) $8250 + 18$ b) $8250 + 1800$ c) $8250 + \frac{18}{100}$ d) $8250 + 8250 \times 0.18$	1						
13	If x and y are in inverse proportion then what is the value of a . <table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>x</td> <td>a</td> <td>45</td> </tr> <tr> <td>y</td> <td>15</td> <td>6</td> </tr> </tbody> </table> a) 18 b) 12 c) 24 d) 15	x	a	45	y	15	6	1
x	a	45						
y	15	6						
14	If $45 : 180 :: y : 8$, then the value of y is a) 4 b) 6 c) 12 d) 2	1						
SECTION – B (8 MARKS)								
15	A school has food provisions to feed 80 students for 15 days. If 20 more students join the school, for how many days will the provisions last?	2						
16	Find the product of 318×1002 using distributive property.	2						
17	On a map, 1 cm represents 8 km. If two towns are 6.5 cm apart on the map, find the actual distance between them.	2						
18	Prove that the difference of a 2-digit number and the number obtained by reversing their digits is divisible by 9.	2						
SECTION – C (15 MARKS)								
19	In a laboratory, the number of bacteria in a certain experiment increases at the rate of 2.5% per hour. Find the number of bacteria at the end of 2 hours if the Initial count is 5,06,000.	3						
20	The two adjacent angles of a parallelogram are the same. Find the measure of each angle.	3						

21	A container is divided into 4 equal parts. Each part is filled with water that is twice the volume of the previous part. If the smallest part has 2 liters, find the total amount of water in the container.	3
22	To make concrete for a construction work cement, sand, and gravel are mixed in the prescribed ratio 1 : 3 : 4 by volume. If 12 cubic metres of sand is used, how much cement and gravel is needed?	3
23	A hostel has enough food for 240 students for 30 days. How long would the food last if 60 more students join the hostel?	3

SECTION – D (15 MARKS)

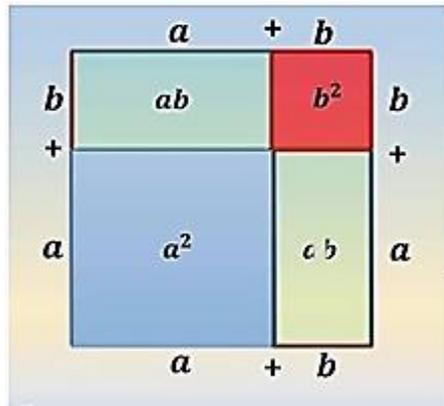
24	A school is organising an excursion for its students. 40% of them are Grade 8 students and the rest are Grade 9 students. Among these Grade 8 students, 60% are girls. (i) What percentage of the students going to the excursion are Grade 8 girls? (ii) If the total number of students going to the excursion is 160, how many of them are Grade 8 girls?	5
25	a) Construct a kite whose diagonals are of lengths 6 cm and 8 cm. b) Find the remaining angles in the following trapezium 	5
26	a) A 6-digit number 48a23b is divisible by 18. Find possible pairs of (a, b). b) Draw a Venn diagram which captures the relationship between the multiples of 4, 8, and 32?	5 (2.5 + 2.5)

SECTION – E (8 MARKS)

27	Expenditure (in percentage) on various items and savings of a family during a month. From the given pie chart answer the following:  i) On which item, the expenditure was maximum? ii) Expenditure on which item is equal to the total savings of the family? iii) If the monthly savings of the family is ₹ 3,000, what is the monthly expenditure on clothes? OR If the total expenditure is ₹ 12,000. Find the total expenditure on Transport and Food.	1 1 2
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A gardener wants to make a square garden whose side is $(a+b)$ meters, where a meters is the length of the lawn and b meters is the width of the flower bed placed along the lawn.



i) Express the total area of the garden in terms of a and b .

ii) Find the perimeter of square garden.

iii) If $a=10$ m and $b=5$ m, find the total area.

OR

If $a = 15$ m and $b = 20$ m then find the total cost of fencing the garden at the rate of ₹10 per meter.

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1

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