KENDRIYA VIDYALAYA SANGATHAN ,REGIONAL OFFICE, LUCKNOW
MID TERM EXAMINATION 2023-24

SUBJECT : MATHEMATICS **MAX. MARKS : 60**
CLASS: VIII **TIME: 2 Hr.30 Min**

GENERAL INSTRUCTIONS:

1.All questions are compulsory.
2.The question paper consists of 30 questions divided into 4 sections A, B, C, D.
3.Section A comprises of 15 questions of 1 mark each. Section B comprises of 5 questions of 2 marks each. Section C comprises of 5 questions of 3 marks each. Section D comprises of 5 questions of 4 marks each.
4.Internal choices are provided in 2 questions of section B, 2 questions of section C and 2 questions of section D.
5.Calculators are not permitted.

Q.	Questions	Mar
	SECTION-A	
1	Sum of a rational number and its additive inverse is (a) 1 (b) 0 (c) -1 (d) None of these	1
2	Zero (0) is (a) the identity for addition of rational numbers. (b) the identity for subtraction of rational numbers. (c) the identity for multiplication of rational numbers. (d) the identity for division of rational numbers.	1
3	Arpita's present age is thrice of Shilpa. If Shilpa's age three years ago was x. Then Arpita's present age is (a) 3(x – 3) (b) 3x + 3 (c)3x – 9 (d) 3(x + 3)	1
4	The shifting of a number from one side of an equation to other is called (a) Transposition (b) Distributivity (c) Commutativity (d) Associativity	1
5	The sum of all exterior angles of a triangle is (a) 180° (b) 360° (c) 540° (d) 720°	1
6	If three angles of a quadrilateral are each equal to 75°, the fourth angle is (a) 150° (b) 135° (c) 45 (d) 75°	1
7	The range of the data 30, 61, 55, 56, 60, 20, 26, 46, 28, 56 is (a) 26 (b) 30 (c) 41 (d) 61	1
8	In a pie chart, the total angle at the centre of the circle is (a) 180° (b) 360° (c) 270° (d) 90°	1
9	How many natural numbers lie between 5^2 and 6^2? (a) 9 (b) 10 (c) 11 (d) 12	1
10	If one member of a Pythagorean triplet is 2m, then the other two members are (a) m, m^2+1 (b) m^2+1, m^2 (c) m^2, m^2-1 (d) m^2-1 , m^2+1	1
11	The next two numbers in the number pattern 1, 4, 9, 16, 25 ... are (a)36, 64 (b) 36, 49 (c) 36, 48 (d) 35,49	1
12	If m is the cube root of n, then n is (a) m^3 (b) $\sqrt{m}$ (c) $\frac{m}{3}$ (d) $\sqrt[3]{m}$	1
13	There are _____ perfect cubes between 1 and 1000. (a) 7 (b)8 (c) 9 (d) 10	
14	If 90% of x is 315 km, then the value of x is	1

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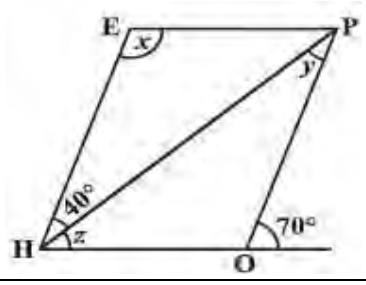
	(a) 350 km (b) 35 km (c) 350 m (d) 325 m	
15	40% of [100 – 20% of 300] is equal to (a) 20 (b) 16 (c) 140 (d) 64	1
	SECTION-B	
16	Find $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \frac{-14}{9}$	2
17	How many sides does a regular polygon have if the measure of an exterior angle is 24°? **OR** Explain how a square is (i) a quadrilateral (ii) a parallelogram	2
18	If you have a spinning wheel with 3 green sectors, 1 blue sector and 1 red sector, what is the probability of getting a green sector? What is the probability of getting a non-blue sector?	2
19	Find the smallest square number which is divisible by each of the numbers 6, 9 and 15. **OR** Find the square root of 31.36 by Division method.	2
20	An item marked at Rs. 840 is sold for Rs. 714. What is the discount and discount %?	2
	SECTION-C	
21	Solve the linear equation m - $\frac{m-1}{2} = 1 - \frac{m-2}{3}$ **OR** $\frac{3t-2}{4} - \frac{2t+3}{3} = \frac{2}{3} - t$	3
22	HOPE is a parallelogram, Find the angle measures x, y and z. State the properties you use to find them. 	3
23	Find the least number which must be added to 525 so as to get a perfect square. Also find the square root of the perfect square so obtained.	3
24	Is 68600 a perfect cube? If not, find the smallest number by which 68600 must be multiplied to get a perfect cube.Also find the perfect cube so obtained.	3
25	If Meena had Rs.600 left after spending 75% of her money, how much did she have in the beginning? **OR** If 60% people in a city like cricket, 30% like football and the remaining like other games, then what per cent of the people like other games? If the total number of people is 50 lakh, find the exact number who like each type of game.	3
	SECTION-D	
26	A person earns rupees 100 in a day. If he spent rupees $14\frac{2}{3}$ on food and rupees $30\frac{2}{3}$ on petrol. How much did he save on that day?	4
27	Simplify and solve the linear equation 0.25(4f – 3) = 0.05(10f – 9) **OR** 3(5z – 7) – 2(9z – 11) = 4(8z – 13) – 17	4

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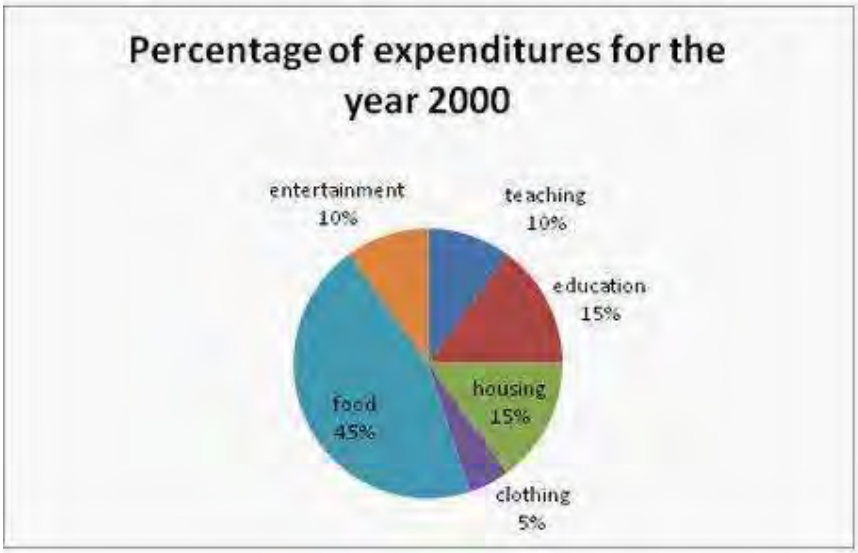
28	a) Draw a rough figure of a quadrilateral that is not a parallelogram but has exactly two opposite angles of equal measure. b) The measures of two adjacent angles of a parallelogram are in the ratio 3 : 2. Find the measure of each of the angles of the parallelogram.	2+2
29	A scooter was bought at Rs. 42,000. Its value depreciated at the rate of 8% per annum. Find its value after one year. **OR** In a Laboratory, the count of bacteria in a certain experiment was increasing at the rate of 2.5% per hour. Find the bacteria at the end of 2 hours if the count was initially 3,20,000.	4
30	The pie chart given below shows the spending of a family on different articles for the year 2000. Analyze the pie chart and answer the questions which follow.  i) If the total amount that was spent in the year 2000 was 50000, the amount that was spent on food was A. Rs.225000 B. Rs.22500 C. Rs.24000 D. Rs.21400 ii) If the total amount that was spent in the year2000 was Rs. 48000, the amount that was spent on housing and clothing combined was A. Rs.9600 B. Rs.8000 C. Rs.10000 D. Rs.12000 iii) The ratio of the amount spent on teaching and education to clothing and food was A. 3:2 B. 2:3 C. 1:5 D. 1:2 iv) According to the graph, the maximum amount that was spent was on which item (if the expenditure that is given to be Rs. 58256)? A. Food B. Housing C. Clothing D. Others	4

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