INDIAN SCHOOL SOHAR
TERM II EXAMINATION (2023-24)
MATHEMATICS

CLASS: VI   **MAX. MARKS: 80**
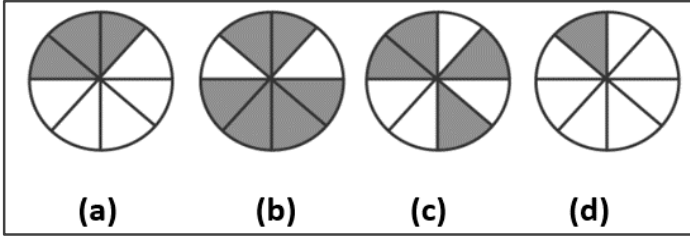**DATE: 03/03/2024**   **TIME: 3 HOURS**
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General Instructions:

1. This question paper contains- five sections **A, B, C, D** and **E.**
2. Section A has 18 multiple choice questions (MCQs) and 2 Assertion - Reason based questions of 1 mark each.
3. Section B has 5 Very Short Answer (VSA) – type questions of 2 marks each.
4. Section C has 6 Short Answer (SA) – type questions of 3 marks each.
5. Section D has 4 Long Answer (LA) – type questions of 5 marks each.
6. Section E has 3 case based integrated units of assessment (4 marks each) with sub-parts of the values of 1,1 and 2 marks respectively.
7. All questions are compulsory. However, an internal choice in 2 Qs of 5 marks, 2 Qs of 3 marks and questions of 2 marks has been provided. An internal choice has been provided in the 2marks questions of Section E.

	SECTION - A **[This section comprises of Multiple Choice Questions of 1 mark each]**	
Q.No.		**Marks**
1.	What is the simplest form of the ratio 18: 6? (a) 3:4 (b) 1:3 (c) 3:3 (d) 3:1	1
2.	Find the area of the given figure by counting unit squares: (a) 4 sq units (b) 5 sq units (c) 6 sq units (d) 10 sq units	1
3.	Express 116 mm as cm using decimals: (a) 0.116 cm (b) 1.16 cm (c) 11.6 cm (d) 116 cm	1
4.	Which number will we reach if we move 4 numbers to the left of (-3)? (a) (-8) (b) (-7) (c) 1 (d) 0	1
5.	How many matchsticks are used in the pattern "W"? (a) 2 (b) 3 (c) 4 (d) 5	1
6.	Converting $\frac{35}{6}$ into mixed fraction, we get: (a) $2\frac{1}{6}$ (b) $3\frac{2}{6}$ (c) $3\frac{3}{6}$ (d) $5\frac{5}{6}$	1
7.	Perimeter of a regular pentagon is 65cm, then its each side is: (a) 12 cm (b) 13 cm (c) 14 cm (d) 15 cm	1
8.	The given number line represents: (a) 5 less than 8 (b) 3more than 5 (c) 5 more than 8 (d) 3 more than 8	1

9.	Find the value of the missing number: $\frac{7}{8} = \frac{63}{\Box}$ (a) 16 (b) 40 (c) 56 (d) 72	1
10.	What value does this ⅢⅠ tally mark represent? (a) 15 (b) 10 (c) 5 (d) 4	1
11.	Cadets are marching in a parade. There are 7 cadets in a row. What is the rule which gives the number of cadets, for "n" number of rows? (a) 7 (b) 7 + n (c) 7 - n (d) 7n	1
12.	Find: 0.29 + 0.36 (a) 0.065 (b) 0.65 (c) 65 (d) 6500	1
13.	Ekta packs 500 Kg of sweets in 10 days. How much will she pack in a day? (a) 10 kg (b) 20 kg (c) 25 kg (d) 50 kg	1
14.	Among the fraction of the unshaded portion in the given image, which fraction is the greatest: (a) a (b) b (c) c (d) d (a) (b) (c) (d)	1
15.	Find the side of the square whose area is 49 sq m (a) 14 m (b) 7 m (c) 5 m (d) 6 m	1
16.	Trisha took 3.25 minutes to complete the race, Rachel took 3.207 minutes to complete the race and Risane took 3.227 minutes to complete the race. Who won the race? (a) Trisha (b) Rachel (c) Risane (d) all are equal	1
17.	The side of a regular hexagon is "s" cm. Find its perimeter. (a) 9s (b) 8s (c) 7s (d) 6s	1
18.	What is the predecessor of (- 5)? (a) (- 7) (b) (- 6) (c)(- 5) (d) (- 4)	1
	Assertion - Reason Based Questions In the following questions, a statement of **Assertion(A)** is followed by a statement of **Reason (R).** Choose the correct answer out of the following choices. (a) Both **Assertion (A)** and **Reason (R)** are true and **Reason(R)** is the correct explanation of **Assertion(A).** (b) Both **Assertion(A)** and **Reason(R)** are true and **Reason(R)** is not the correct explanation of **Assertion(A).** (c) **Assertion (A)** is true but the **Reason(R)** is false. (d) **Assertion(A)** is false but **Reason (R)** is true.	
19.	**Assertion (A):** 5 : 3 and 50 : 30 are in proportion **Reason (R):** If two ratios are equal, we say that they are in proportion and use the symbol '=' or '::' to equate the two ratios.	1

20.	**Assertion (A):** Amala went to a park which is 20 m long and 10 m wide. She took one complete round of it. The distance covered by her is 60 m. **Reason (R):** The surface enclosed by a closed figure is called its area, so Amala found the area of the park.	1

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SECTION B
[This section comprises of very short answer type questions (VSA) of 2 marks each]

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21.	A 35 cm line segment is divided into two parts in the ratio 4:3. Find the length of each part. **(OR)** Rani earns ₹6000 per month and her friend Monika earns ₹15000 per month. Find the ratio of Rani's earnings to Monika's earnings.	2
22.	Write all the integers between the given pair (-6) and (-11).	2
23.	Kirti had a rope of 63.45 m. She cut the rope into two pieces. If the length of one piece was 23.59 m, what was the length of the other piece?	2
24.	(i) Find the equivalent fraction of $\frac{32}{48}$ with numerator 8 (ii) Find the equivalent fraction of $\frac{7}{9}$ with denominator 36	2
25.	What is the length of the wooden strip required to frame a photograph of length and breadth 30 cm and 25 cm respectively? **(OR)** A piece of string is 60 cm long. What will be the length of each side if the string is used to form: (i) a square?　　(ii) an equilateral triangle?	2

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SECTION C
[This section comprises of short answer type questions (SA) of 3 marks each]

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26.	(i) Add 11 + (- 7) using a number line. (ii) Without using number line, write the integer which is 4 more than 6.	2 1
27.	Savita bought $\frac{2}{7}$ m of ribbon and Kavita $\frac{3}{4}$ m of the ribbon. What was the total length of the ribbon they bought? **(OR)** Subtract $2\frac{3}{4}$ from $4\frac{1}{8}$.	3
28.	Observe the following matchstick patterns : (i)Find the general rule that gives the number of matchsticks in terms of the number of triangles: (ii) Find the general rule that gives the number of matchsticks in terms of the number of the number of "Z": 	3

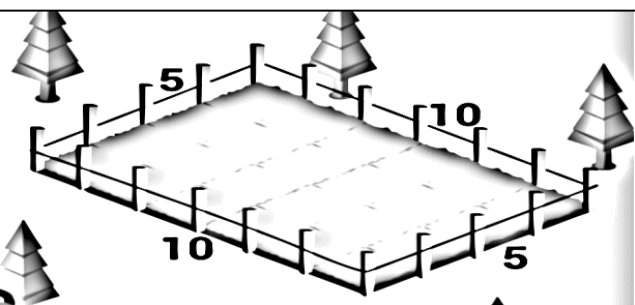| 29.	Determine if the ratio 250 g : 1 kg and ₹40 : ₹160 form a proportion. Also, write the middle terms and extreme terms if the ratio forms a proportion. **(OR)** In each of the following figures, find the ratio of the shaded region to the unshaded region. (i) (ii)	3
30.	Find the sum of the integers (- 30) , 120 , (- 50) , 75 , 300 and also write the least integer among the given.	3
31.	The total weight of a box is 22 kg 200 g, containing 13 kg 750 g of mangoes and 6 kg 180 g of apples. What is the weight of the empty box in decimal form?	3

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SECTION D
[This section comprises of long answer type questions (LA) of 5 marks each]

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32.	Tim runs around a square park of side 55 m, Mano runs around a rectangular park of length 50 m and breadth 35 m and Ram runs around a pentagon park of each side 40 m. (i) Find the distance run by (a) Tim, (b) Mano and (c) Ram. (ii) Who covered less distance among them? (iii) Who covered more distance among them? **(OR)** A floor is 5 m long and 8 m wide. (i) A square carpet of sides 5 m is laid on the floor. Find the area of the floor that is not carpeted. (ii) Find the number of tiles required, if Malini wants to cover the floor by square tiles of side 2m.	3 1 1 3 2
33.	The following data represents the scores of students in a math test for class VI: 12, 12, 14, 15, 16, 18, 13, 15, 16, 17, 18, 13, 16, 20, 20, 19, 17, 15, 12, 15, 16, 17, 18, 18, 19, 20, 16, 19. (i) Draw a tally marks table for the above data. (ii) Find how many students obtained greater than or equal to 16 marks? **(OR)** Among 75 people in a hostel, survey was done only with few people regarding their favourite beverages. The below tally marks table shows the data: Answer the following questions: (i) How many more people like green tea than coffee? (ii) How many people like tea? (iii) How many more people like tea than iced tea? (iv)How many total people were surveyed? (v) How many people were not surveyed?	3 2 1 1 1 1 1

TYPES OF BEVERAGES | NUMBER OF PEOPLE
TEA | ЖЖЖ IIII
COFEE | Ж III
GREEN TEA | Ж IIII
ICED TEA | IIII

34.	Amira and Gopi wanted to help their parents by buying some groceries, Amira bought 7 kg 600 g Wheat, 5 kg 20 g Ragi and 10 kg 450 g flour and Gopi bought 8.550 kg Wheat, 7.850 kg Ragi and 9.650 kg flour as listed by their parents respectively. (i) Find the total weight purchased by Amira (write the answer in decimals). (ii) Find the total weight purchased by Gopi (write the answer in decimals). (iii) Find who purchased more weight and by how much?(write the answer in decimals).	1.5 1.5 2
35.	Answer the following: (i) The teacher distributes 8 pencils per student. Find how many pencils are needed, for "s" number of students? (ii) Lila is Rena's younger sister. Lila is 6 years younger than Rena. Write Lila's age in terms of Rena's age. (Take Rena's age as r) (iii) If there are 25 apples in a bag, how will you write the total number of apples in terms of the number of bags? (Use b for number of bags) (iv) Write any two letters which gives the same rule as the number of sticks required to make the pattern of "V" in English alphabets. (v) Write the rule which gives the number of sticks required to make the pattern of "A" in English alphabets.	1 1 1 1 1

SECTION E

[This section comprises of 3 case based integrated units of assessment (4 marks each) with sub-parts (i), (ii) (iii) of marks 1,1,2 respectively. The third part (iii) has internal choice.]

36.	In a magical carnival, there's a game called "Ball Bonanza." The game master, named Wilson, has a mysterious bag filled with colorful balls. The bag contains 11 black balls, 8 blue balls, 5 red balls, and 6 yellow balls. Wilson challenge the players with these questions. (i) Find the ratio of number of black balls to the total number of balls. (ii) Find the ratio of number of yellow balls to blue balls. (iii) Find the ratio of number of balls starting with the letter "**b**" to the total number of balls in the bag. **(OR)** (iii) If 10 green balls are now added to the bag, then find the ratio of number of black and green balls to the total number of yellow balls in the bag.	1 1 2
37.	In a countryside village, there lived a diligent farmer named Ramesh. Ramesh was known for his love of cultivating various crops and this year, he had set his sights on planting peanuts in his rectangular garden. The ground had dimensions of 10 meters by 5 meters. He plans to plant in it and needs to fence the ground with a steel wire fence.	

	(i) Help Ramesh to plant peanuts, by finding the area of his rectangular ground.		1
	(ii)What formulae should Ramesh use to find the length of steel wire needed to fence the ground.		1
	(iii) As Ramesh realized the importance of securing his ground, he decided to erect a sturdy steel wire fence all around it. what length of steel wire is needed to fence the ground?		2
	(OR)		
	(iii) Find how much Ramesh has to pay, if the cost of ploughing the ground is ₹200 per sq m.		
38.	Mr. Mohan, the owner of a car washing station, created a pictograph to represent the number of cars washed during the days of a week. The pictograph provided below illustrates the following data.		

Days	Number of cars washed	Key : 🚗 =5 cars
Sunday	🚗 🚗 🚗 🚗 🚗	
Monday	🚗 🚗 🚗	
Tuesday	🚗 🚗 🚗 🚗 🚗 🚗	
Wednesday	🚗 🚗	
Friday	🚗 🚗 🚗 🚗	
Saturday	🚗 🚗 🚗 🚗 🚗 🚗 🚗	

Using the pictograph, answer the following questions:
(i) On which day was the highest number of cars washed and how many? — 1
(ii) Calculate the ratio of cars washed on Tuesday to the cars washed on Friday. — 1
(iii) What is the total number of cars washed during the week represented in the pictograph? — 2

(OR)

(iii) If each car wash costs ₹10, how much revenue did Mr. Mohan generate from washing cars during the first three days?

****THE END****