

LEVEL - 2

Year 2019-20

## **MATHEMATICS**

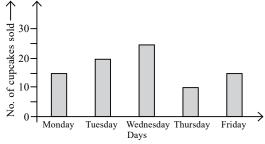
- 1. Which of the following statements is CORRECT?
  - A. A square has only 2 equal sides.
  - B. A rectangle has 2 pairs of equal sides.
  - C. A square has 2 lines of symmetry.
  - D. A rectangle has 4 lines of symmetry.
- 2. Three Roman numerals A, B and C, each having "V" only once in the place shown. Other two Roman numerals are either I or X or both.

A:	V		
B :		V	

C: V

Which of the following statements is true?

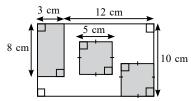
- A. The smallest number is A.
- B. Difference between A and B is 8.
- C. B and C represents same number.
- D. None of these
- 3. How many sixths are there in  $2\frac{1}{2} + 4\frac{1}{2} + 3\frac{1}{4} + 3.75$ ?
  - A. 56
  - B. 84
  - C. 94
  - D. 14
- 4. On Monday, temperature was 20°C. On Tuesday, it had gone down by 3°C and then on Wednesday, it had gone up by 8°C. What was the temperature on Wednesday?
  - A. 31°C
  - B. 35°C
  - C. 25°C
  - D. 18°C
- 5. The given graph shows the number of cupcakes sold by Tanmay on five consecutive days.



What fraction of total cupcakes is sold on Wednesday?

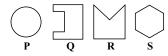
- A. 4/17
- B. 5/17

- C. 6/17
- D. 12/17
- 6. Karan spend <sup>1</sup>/<sub>3</sub> of his salary and saved ₹ 1500 every month. How much did he earn in a year?
  - A. ₹ 27000
  - B. ₹ 17200
  - C. ₹ 37000
  - D. ₹ 31600
- 7. A towel costs ₹ 59.90 and a bar of soap costs ₹ 12.40. Mrs Kapoor bought 2 towels and 3 bars of soap. How much did she pay altogether?
  - A. ₹ 132.30
  - B. ₹ 164
  - C. ₹ 157
  - D. ₹ 144.60
- 8. In the given figure (not drawn to scale), what fraction of the total area is shaded?



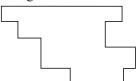
- A.  $\frac{34}{75}$
- B.  $\frac{37}{75}$
- C.  $\frac{34}{150}$
- D.  $\frac{37}{150}$
- 9. Anita filled a tank with 8 L 725 mL of oil, a can with 3 L 25 mL of oil and a bottle with 725 mL of oil. How much quantity of oil did Anita have altogether?
  - A. 12 L 475 mL
  - B. 14 L 475 mL
  - C. 12 L 450 mL
  - D. 14 L 450 mL
- 10. An empty jar weighs 3 kg 125 g. Reshma put some marbles of weight 54 g each. Now, the total weight of the jar is 4 kg 97 g. How many marbles did Reshma put in the jar?
  - A. 24
  - B. 15
  - C. 12
  - D. 18

- 11. When ♠ is subtracted from 65 thousands, the answer is 150 tens less than 62 thousands. How many hundreds is ♠?
  - A. 4.5
  - B. 45
  - C. 450
  - D. 4500
- 12. There are 125 passengers in a train. 20 of them are children while the rest are adults. If  $\frac{5}{7}$  of the adults are men, then what fraction of the total passengers in the bus are women?
  - A.  $\frac{8}{25}$
  - B.  $\frac{16}{25}$
  - C.  $\frac{6}{25}$
  - D.  $\frac{2}{7}$
- 13. In 15753.532, the sum of place values of 5's is more than the sum of place values of 3.
  - A. 5050.47
  - B. 5046.97
  - C. 5047.20
  - D. 5047.47
- 14. Shikha makes a profit of rupees eighty five crore three lakh fifty five thousand thirty nine. Her profit can be written in numerals as
  - A. ₹ 850,355,039
  - B. ₹ 85,03,55,039
  - C. ₹ 85,03,55,390
  - D. ₹ 8,53,67,249
- 15. Which of the following shapes can be tessellated?

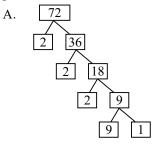


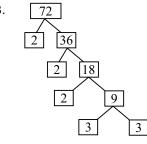
- A. Only P and R
- B. Only Q and S
- C. Only S
- D. None of these
- 16. If area of 12 identical squares is 768 sq. cm, then find the perimeter of a square.
  - A. 35 cm
  - B. 21 cm
  - C. 28 cm
  - D. 32 cm

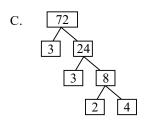
17. How many angles inside the given figure are equal to three right angles?



- A. 4
- B. 6
- C. 3
- D. 7
- 18. The value of (MDCLX + MMCCIX) (MDCIV + CMXLVI) =
  - A. MCCIX
  - B. MCCCIX
  - C. MCCCXIX
  - D. MCCXIX
- 19. Kunal cut a wire and bent it to form 6 similar rectangles. The breadth of each rectangle is 4 cm less than the half of its length. If the breadth of a rectangle is 18 cm, then what is the original length of the wire?
  - A. 656 cm
  - B. 744 cm
  - C. 696 cm
  - D. 764 cm
- 20. A rope P is 9.5 m long. The length of rope Q is  $\left(\frac{2}{5}\right)^{th}$  of the length of rope P. What is the total length of both the ropes?
  - A. 13.3 m
  - B. 15.2 m
  - C. 11.4 m
  - D. 14.3 m
- 21. Which of the following options shows the correct prime factorisation of 72 ?





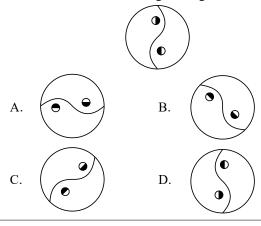


- D. Both A and B
- 22. A certain number when divided by 3 gives a remainder of 1. The same number when divided by 4 gives a remainder of 3. Which of the following can be the number?
  - A. 109
  - B. 71
  - C. 82
  - D. 79
- 23. If  $\frac{7}{25}$  of a number is 21 more than  $\frac{1}{4}$  of the same number, then find the number.
  - A. 800
  - B. 750
  - C. 600
  - D. 700
- 24. Which of the following statements is/are false?
  - **P.** Successor of largest 7-digit number is 10 million.
  - **Q.** Estimated value of largest 6-digit number rounded to the nearest hundreds is the smallest 6-digit number.
  - A. Only P
  - B. Only Q
  - C. Both P and Q
  - D. Neither P nor Q
- 25. Rajat bought 14 kg 460 g of tomatoes. If he can put 1 kg 205 g of tomatoes in each bag, then how many bags does he need to put all the tomatoes?
  - A. 14
  - B. 10
  - C. 12
  - D. 8
- 26. Which of the following options is correct?
  - A. 8 L 42 mL = 842 mL
  - B. 3 hm 4 dam = 340 m
  - C. 75 km 15 m = 7515 m
  - D. 2 dg 5 cg = 205 mg
- 27. The given table shows the timings of a showroom. Study it carefully and answer the question that follows.

Day	Time	
Mon - Fri	9:30 a.m 5:00 p.m.	
Sat - Sun	9:45 a.m 2:00 p.m.	

Sameer arrived at the showroom at 8:15 a.m. on Wednesday. How long will he have to wait for the showroom to open? If he arrived at the same time on Sunday, then how long will he have to wait?

- A. 1 hr 15 mins, 1 hr 40 mins
- B. 1 hr 5 mins, 1 hr 40 mins
- C. 1 hr 5 mins, 1 hr 30 mins
- D. 1 hr 15 mins, 1 hr 30 mins
- 28. Which of the following figures shows  $2\frac{1}{4}$  anticlockwise rotation of the given figure?



29. The given table shows the fare of travelling from two cabs X and Y. Study it carefully and answer the following question.

	Fare (1st km)	Every additional (1/2) km or part thereof	
Cab X	₹ 28.40	₹ 6.25	
Cab Y	₹ 24.50	₹ 8.45	

How much total money Sneha has to pay if she travels 4.5 km by Cab Y and 3.5 km from Cab X?

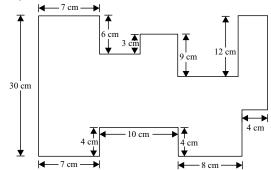
- A. ₹ 143.30
- B. ₹ 115.90
- C. ₹ 215.90
- D. ₹ 275.30
- 30. Select the incorrect option.
  - A. Triangles with all unequal sides is called a scalene triangle.
  - B. At 1:15, the smaller angle formed between the two hands of a clock is acute angle.
  - C. Lines intersecting at 90° are called perpendicular lines.
  - D. An angle greater than 90° but less than 360° is called an obtuse angle.

- 31. If 14 tenths 25 hundredths is subtracted from the product of 4.42 and 6, then the resultant number obtained is
  - A. 24.87
  - B. 18.64
  - C. 22.87
  - D. 30.64
- 32. How much greater is the smallest 5-digit number with all different digits than the largest 4-digit number with all different digits?
  - A. 2469
  - B. 88889
  - C. 358
  - D. 2464
- 33. Ramya started studying at time shown below. After 2 hours 15 minutes, she stopped and took some rest. She then again studied for another 1 hour 45 minutes and then stopped at the time shown. How long was her rest period?





- A. 50 mins
- B. 1 hr
- C. 1 hr 05 mins
- D. 55 mins
- 34. Find the perimeter of the given figure (not drawn to scale).



- A. 156 cm
- B. 183 cm
- C. 146 cm
- D. None of these
- 35. Which of the following figures are symmetric?



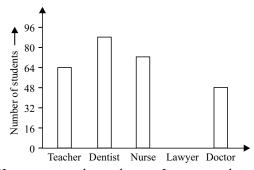








- A. Only (1) and (5)
- B. Only (2) and (5)
- C. Only (1), (2), (3) and (4)
- D. Only (1), (3) and (5)
- 36. is twice the difference between the 6<sup>th</sup> and the 10<sup>th</sup> multiple of 7. Find .
  - A. 38
  - B. 56
  - C. 60
  - D. 28
- 37. Niharika has ₹ 9600. She spends 1/3 of her money on clothes and 1/2 of the remaining money on food. How much money is left with her?
  - A. ₹ 1600
  - B. ₹ 3200
  - C. ₹ 6400
  - D. ₹ 3600
- 38. The given graph shows the career chosen by students of a class. The total students in the class is 300. Study the graph carefully and answer the question that follows.



How many students chooses Lawyer as the career?

- A. 20
- B. 28
- C. 32
- D. 24
- 39. The given table shows the weight of five friends.

Students	Weight (in kg)	
Kavya	56.5	
Kamal	68.5	
Aman	?	
Karan	49	
Aanchal	53.5	

If the total weight of all the five students is 289 kg 500 g, then find the weight of Aman.

- A. 61 kg 500 g
- B. 61 kg
- C. 62 kg 500 g
- D. 62 kg

- 40. Three containers P, Q, and R contains 425 L of water altogether. Container P contains thrice as much water as container Q. Container R contains 19 L more water than container P. How much quantity of water is there in container R?
  - A. 183 L
  - B. 174 L
  - C. 203 L
  - D. 193 L
- 41. Tanya has 7.8 m of thread. If she needs 3 m thread to make a necklace, then how many necklaces can she make and how much thread is left with her?
  - A. 2, 1.8 m
  - B. 1, 1.8 m
  - C. 1, 0.8 m
  - D. 2, 0.8 m
- 42. 520 g of tiny pink pebbles are mixed with 580 g of tiny purple pebbles. Vihan packed the mixture of tiny pebbles into 5 equal packets. How many grams of the mixture are there in each packet?
  - A. 220
  - B. 330
  - C. 230
  - D. 150

43. The table below shows the cost of cashews at stalls X, Y and Z.

Stall	X	Y	Z
Price of	₹ 180 per kg	₹ 117 for	₹ 162 for
cashews		650 g	900 g

Which of the following stalls sell the cashews at the same price?

- A. Only X and Z
- B. Only X and Y
- C. Only Y and Z
- D. X, Y and Z
- 44. Atul had ₹ 2000. He bought potatoes for ₹ 115.40, rice for ₹ 310.50, sugar for ₹ 549.45 and fruits for ₹ 498.99. How much money is left with him?
  - A. ₹ 520.75
  - B. ₹ 545.66
  - C. ₹425.75
  - D. ₹ 525.66
- 45. Find the HCF and LCM respectively of 42, 63 and 105.
  - A. 7, 630
  - B. 21, 1260
  - C. 21, 630
  - D. 7, 1260

## **ACHIEVERS SECTION**

- 46. Rashi think of a 6-digit number. Find the number using the given clues.
  - The digit at thousands place is more than the digit at tens place by 5.
  - The digit at lakhs place is HCF of 3 and 7.
  - The digit at tens place is the smallest odd prime number.
  - The digit at ten thousands place is 3<sup>rd</sup> multiple of 2.
  - The digit at ones place is 4 less than the digit at ten thousands place.
  - The digit at hundreds place is product of digit at lakhs place and ones place.
  - A. 166212
  - B. 158232
  - C. 168232
  - D. 756212



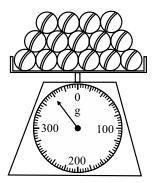
- A. 780
- B. 1020
- C. 1180
- D. 880
- 48. Match the following and select the correct option.

## Column A

## Column B

- (P) Sum of 25.89, 149.9, 76.05 and (i) 1120.972 43.008 is
- (Q) Subtract 43.988 from the product (ii) 738.78 of 145.62 and 8.
- (R)  $900 + 70 + \frac{8}{10} + \frac{4}{100} + \frac{6}{1000} =$  (iii) 294.848
- (S)  $(49.5 \times 17) (12.84 \times 8) =$  (iv) 970.846
- A.  $(P)\rightarrow(iii), (Q)\rightarrow(i), (R)\rightarrow(ii), (S)\rightarrow(iv)$
- B.  $(P)\rightarrow(iii), (Q)\rightarrow(i), (R)\rightarrow(iv), (S)\rightarrow(ii)$
- C.  $(P)\rightarrow(i), (Q)\rightarrow(iii), (R)\rightarrow(iv), (S)\rightarrow(ii)$
- D.  $(P)\rightarrow(i), (Q)\rightarrow(iii), (R)\rightarrow(ii), (S)\rightarrow(iv)$

49. Read the statements carefully and select the correct option.

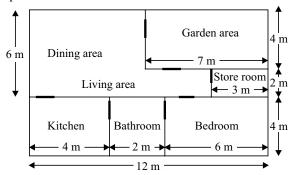


**Statement-1:** Value of weight of 12 such balls is 8<sup>th</sup> multiple of 36.

**Statement-2:** Weight of 8 such balls is 72 g more than weight of 5 such balls.

- A. Both Statement-1 and Statement-2 are true.
- B. Statement-1 is true but Statement-2 is false.

- C. Statement-1 is false but Statement-2 is true.
- D. Both Statement-1 and Statement-2 are false.
- 50. Study the given figure carefully and answer the question that follows.



What is the total area of living and dining room?

- A. 35 sq. m
- B. 36 sq. m
- C. 37 sq. m
- D. 38 sq. m

**SPACE FOR ROUGH WORK**