



GRADE 8

MATHEMATICS

School Level Examination (SLE) 2025

SUBJECT CODE

2	0	1
---	---	---

Total Questions: 40

Total Marks: 40

Time: 1 Hour

DO NOT OPEN THIS BOOKLET UNTIL INSTRUCTED TO DO SO

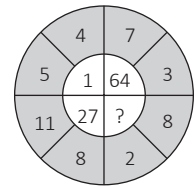
- Carefully fill in your **Name, Class, Roll Number**, and other required details on the **OMR Answer Sheet**.
- Use **only an HB pencil** to fill the OMR Answer Sheet.
- All questions are **compulsory** and carry **one mark** each.
- Only **OMR Answer Sheets** will be evaluated.
- There is **no negative marking** for incorrect answers.
- You may use the **last page** of the question paper for **rough work**.
- **Digital devices** like calculators, smart watches, or mobile phones are **not allowed**.
- After the exam, **submit** both the **OMR Answer Sheet** and the **Question Paper** to the invigilator.

This question paper contains a total of 40 questions, divided into three sections: A, B, and C.

Section A (Logical Reasoning)

1. Find the missing number in the adjoining figure.

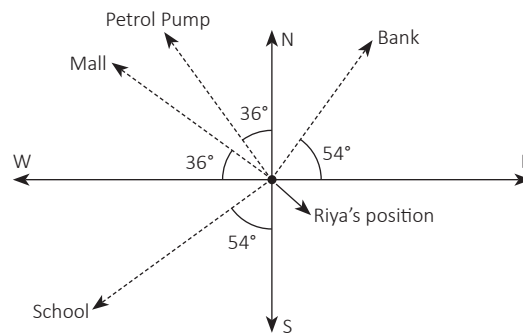
(A) 0 (B) 216
 (C) 125 (D) 256



2. How many degrees does the minute hand cover, in the same time as the second hand covers 180° ?

(A) 8° (B) 5°
 (C) 10° (D) 3°

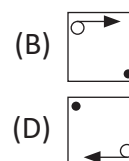
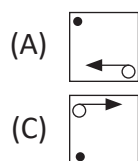
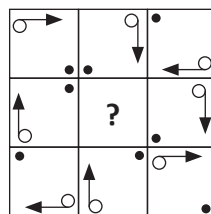
3. Riya's position is shown by the dot on this diagram.



When Riya walks in the direction $W\ 54^\circ\ N$, she will be heading towards the

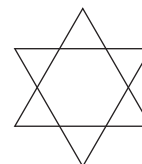
(A) School (B) Petrol Pump (C) Mall (D) Bank

4. Select a figure from the options which completes the figure matrix.

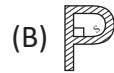
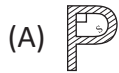


5. Find the number of line segments in the given figure.

(A) 38
 (B) 36
 (C) 30
 (D) 31



6. Choose the correct mirror image of the given figure.



7. How many 5s are there in the given sequence that are immediately preceded by 7 and immediately followed by 6?

7 5 5 9 4 5 9 8 7 5 7 6 5 6 7 8 6 7 5 6 4 6 7 5

- (A) One (B) Three (C) Two (D) Four
8. If $10 + 9 = 13$, $13 + 25 = 18$, $11 + 4 = 13$, then $(12 + 36)$ is
- (A) 14 (B) 20
- (C) 16 (D) 18

Section B (Subject Specific)

9. A rational number which does not lie between $\frac{-2}{3}$ and $\frac{1}{4}$ is _____.

(A) $\frac{5}{12}$

(B) $\frac{-5}{12}$

(C) $\frac{5}{24}$

(D) $\frac{-5}{24}$

10. Raj spent ₹475 on booking tickets to Wonderland. This cost included a ₹25 service fee per booking. The cost of the tickets is ₹75 each. How many tickets did Raj buy?

(A) 6

(B) 5

(C) 4

(D) 8

11. What is the maximum number of obtuse angles a quadrilateral can have?

(A) 2

(B) 3

(C) 4

(D) 1

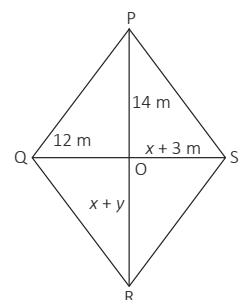
12. PQRS is a rhombus. Find the value of x and y ?

(A) 13 m, 4 m

(B) 13 m, 8 m

(C) 9 m, 5 m

(D) 9 m, 4 m



13. From a well-shuffled deck of 52 playing cards, one card is drawn at random. The probability that the card drawn is a black jack is
- (A) $\frac{1}{13}$ (B) $\frac{1}{26}$ (C) $\frac{2}{13}$ (D) $\frac{1}{52}$
14. If $\frac{\sqrt{50} + \sqrt{75}}{\sqrt{8} + \sqrt{12}} = x$, then the value of x is
- (A) $\sqrt{\frac{5}{2}}$ (B) $\frac{5}{2}$ (C) $\frac{25}{4}$ (D) None of these
15. Between which two consecutive whole numbers does $\sqrt{1230}$ lie?
- (A) 34 and 35 (B) 35 and 36 (C) 36 and 37 (D) None of these
16. The difference between the Compound Interest and Simple Interest earned on a sum of money at the end of 3 years is ₹2550. To find out the sum, which of the following information given in the statements P, Q and R are necessary?
- P: Amount of Simple Interest accrued after one year
- Q: Rate of interest per annum
- R: Amount of Compound Interest accrued after 3 years
- (A) Only P is necessary (B) Only Q is necessary
- (C) Only R is necessary (D) Either P or R is necessary
17. Three numbers are in the ratio 2 : 3 : 4. If the sum of their cubes is 271656, what is their sum?
- (A) 126 (B) 145 (C) 28 (D) 125
18. The graph that shows the relationship between the whole and its parts is called
- (A) Bar graph (B) Pictograph
- (C) Circle graph (D) Line graph
19. Rahim bought a showpiece that was tested at ₹320. He was given successive discounts of 20% and 10%, then the price he paid was
- (A) ₹120.40 (B) ₹220.40 (C) ₹230.40 (D) ₹240.40
20. If $x^2 + \frac{1}{x^2} = 79$, then $x + \frac{1}{x} =$ _____.
- (A) $\sqrt{75}$ (B) 9 (C) $\sqrt{79}$ (D) 214
21. The height of a wall is six times its width and the length of the wall is seven times its height. If the volume of the wall is $16,128 \text{ m}^3$, then its length is
- (A) 24 m (B) 168 m (C) 84 m (D) 176 m

22. Find the value of $x + y$, if $3^{7x-8} \times 2^{4y-3} = 23328$.
- (A) 2.2 (B) 2.0
(C) 4.0 (D) 8.0
23. Which of the following varies inversely?
- (A) Quantity and cost of an item
(B) Amount and rate of Interest
(C) Fuel consumed by a car and distance covered
(D) Speed and time taken by a car to cover the distance
24. Factor of $4(a + b)^2 - 16ab$ is
- (A) $a - b$ (B) $(a + b)^2$
(C) $4a$ (D) ab
25. A swimming pool is 80 m by 20 m and 2 m deep. By the end of a summer day, the water level drops by 2 cm. How many cubic metres of water were left in the swimming pool that day?
- (A) 3200 m^3 (B) 640 m^3
(C) 3168 m^3 (D) 800 m^3
26. Read the following table and identify the time period in which the maximum progress has been made.

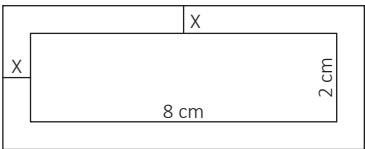
Time (In Minutes)	Distance (In km)
Till 5	2
Till 10	4
Till 15	8
Till 20	10

- (A) Till 5 minutes (B) 5-10 minutes
(C) 15-20 minutes (D) 10-15 minutes
27. Naina leaves her house and travels at 4 km/h. She reaches her office 10 minutes late. Had she travelled 6 km/h, she would have reached 20 minutes early. Find the distance from her house to the office.
- (A) 5 km (B) 4 km
(C) 2 km (D) 6 km
28. **Assertion (A):** The number 46234 is divisible by 4.

Reason (R): A number with an even digit in units place is always divisible by 2.

- (A) Both A and R are true and R is the correct explanation of A.
(B) Both A and R are true but R is not the correct explanation of A.
(C) A is true but R is false.
(D) A is false but R is true.

Instruction: Q. 29 to 33 are two-key-based questions, having four options A, B, C, and D out of which TWO are correct.

29. Which of the following statements is true?
 (A) The data which can take only whole numbers is called continuous data.
 (B) When the class intervals are so arranged that the upper limit of one class is the lower limit of the next class, they are called exclusive class intervals.
 (C) Raw data is already arranged in a meaningful format.
 (D) There are two types of frequency distributions—discrete and continuous in a grouped data.
30. If $a = \left(\frac{2}{3}\right)^3$, $b = \left(\frac{1}{10}\right)^3$, $c = \sqrt[3]{\left(\frac{216}{729}\right)}$, then which of the following statements is correct?
 (A) $a > c < b$ (B) $a > b < c$ (C) $b < c > a$ (D) $c < a > b$
31. Which of the following represents the area of the total region, including the border?
 (A) $(8 + 2x)$ (B) $(16 + 2x)$
 (C) $4(x + 1)(x + 4)$ (D) $(8 + 2x)(2 + 2x)$
- 
32. To find out when a cistern will completely fill, which of the following information given in statements P, Q and R are necessary?
 P: At the end of 4 minutes, Pipe Q is turned off.
 Q: Two pipes – P and Q can fill a cistern in 12 minutes and 16 minutes, respectively.
 R: Volume of the cistern is 214 m^3 .
 (A) Statement P and R are necessary (B) Statement P is necessary
 (C) Statement R is necessary (D) Statement Q is necessary
33. If one side and one diagonal of a rhombus are 5 cm and 8 cm respectively, then its area and perimeter are _____ and _____.
 (A) 48 cm^2 (B) 40 cm (C) 24 cm^2 (D) 20 cm

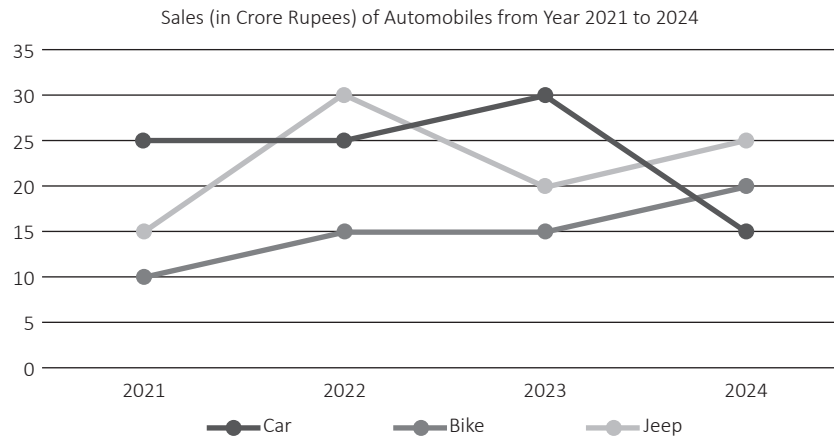
Section C (Competency Enhancement)

34. Match the column A to column B.

	Column I		Column II
K	Construction of a quadrilateral can be possible if at least	(i)	two unequal sides and included diagonal are given.
L	Construction of quadrilateral must satisfy	(ii)	five independent elements are given
M	A kite can be drawn if its	(iii)	4 sides, 4 angles and 2 diagonals
N	A quadrilateral has	(iv)	triangle inequality and angle sum property of a triangle

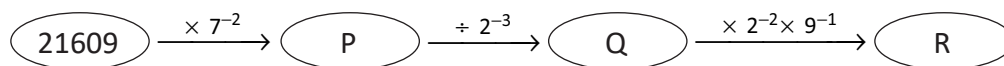
- (A) K–(iii), L–(ii), M–(iv), N–(i) (B) K–(iii), L–(iv), M–(ii), N–(i)
 (C) K–(ii), L–(iv), M–(i), N–(iii) (D) K–(iv), L–(iii), M–(i), N–(ii)

Directions (Q. 35 to 37): Read the following graph and answer the following questions-



- 35.** In which year was the sale of Bikes more than the sale of cars?
 (A) 2022 (B) 2024
 (C) 2023 (D) 2021
- 36.** What is the difference between the total sales of cars and jeeps from 2021 to 2024?
 (A) Rupees ten crores (B) Rupees five crores
 (C) Rupees fifteen crores (D) Rupees two crores
- 37.** Find the ratio of sales of car, bike and jeep in the year 2022?
 (A) 7 : 3 : 5 (B) 2 : 3 : 5
 (C) 5 : 3 : 6 (D) 3 : 5 : 6

Directions (Q. 38 to 40): Study the following figure and answer the following:



- 38.** Find the value of $\frac{Q}{P}$.
 (A) 3 (B) 5
 (C) 8 (D) 2
- 39.** Find the value of $P \times R \div (3^2 \times 7^1)$.
 (A) 352 (B) 425
 (C) 686 (D) 657
- 40.** $P + Q - R =$ _____?
 (A) 3871 (B) 4178
 (C) 2458 (D) 3215



SPACE FOR ROUGH WORK