

SCO INTERNATIONAL MENTAL ABILITY OLYMPIAD

CLASS 5 SAMPLE PAPER

Question Paper Reference with Answer Key and Explanations

Designed from Grade 5 mental ability pathways and aligned with SCO's guided preparation, reasoning practice, reporting, and future-ready academic growth.

- age-fit reasoning practice for Grade 5 learners globally
- compact question-number labels with all passages and figures inside the question block
- answer key and explanation support for students, teachers, and parents

Series	Coding	Alphabet	Operations	Puzzles
AI	Entrepreneurship	GK	Calendar	Ranking

Exam	SCO International Mental Ability Olympiad
Class	5
Paper Type	Sample Paper
Total Questions	35
Time Allowed	60 minutes
Marking	One correct answer for each question; Achievers Section may be used for advanced practice.

Questions with Answer Key and Explanations

Q1. Study the symbols: $A + B$ means A is mother of B; $A - B$ means A is sister of B; $A * B$ means A is father of B; $A \times B$ means A is brother of B. Which expression means Q is grandfather of S?

A. $Q + R * S$	B. $Q * R + S$
C. $S - Q + R$	D. None of these

Answer: B. Explanation: $Q * R$ means Q is father of R, and $R + S$ means R is mother of S. Therefore Q is the grandfather of S.

Q2. Using the same symbols, which expression means I am the uncle of K?

A. $I + J + K$	B. $J * K - I$
C. $I \times J * K$	D. None of these

Answer: C. Explanation: $I \times J$ means I is brother of J. $J * K$ means J is father of K. Therefore I is K's uncle.

Q3. Ameen says, "She is the mother of the only daughter of my son." How is the lady related to Ameen?

A. Daughter-in-law	B. Daughter
C. Sister	D. Sister-in-law

Answer: A. Explanation: The only daughter of Ameen's son is his granddaughter. Her mother is Ameen's daughter-in-law.

Q4. If Bottle means Watch, Watch means Bag, Bag means Pen, and Pen means Pencil, then what is used to read time?

A. Bottle	B. Watch
C. Bag	D. Pen

Answer: A. Explanation: The object used to read time is a watch, but in the code Watch is called Bottle.

Q5. Complete the series: 4, 7, 12, 19, 28, ?

A. 30	B. 36
C. 39	D. 49

Answer: C. Explanation: Differences are 3, 5, 7, 9. Next difference is 11, so $28 + 11 = 39$.

Q6. Find the odd one out: H, Q, T, Z.

A. H	B. Q
C. T	D. Z

Answer: B. Explanation: H, T, and Z have straight-line symmetry features in block style; Q is structurally different with a tail. It is the odd one.

Q7. Akshay is upside down with his face towards the west. In which direction will his left hand be?

- | | |
|----------|----------|
| A. North | B. South |
| C. East | D. West |

Answer: A. Explanation: When upside down, left-right orientation reverses relative to the usual standing position. Facing west, the left hand points north.

Q8. Complete the series: 2, 5, 9, ?, 20, 27.

- | | |
|-------|-------|
| A. 16 | B. 18 |
| C. 24 | D. 14 |

Answer: D. Explanation: Differences are 3, 4, 5, 6, 7. Missing term = $9 + 5 = 14$.

Q9. M is older than R. Q is younger than R and N. N is not as old as M. Who is eldest?

- | | |
|-----------|--------------------|
| A. M | B. R |
| C. M or R | D. Data inadequate |

Answer: A. Explanation: M is older than R, and N is younger than M. Q is younger than R and N. Therefore M is the eldest.

Q10. Complete the pattern: 2Z5, 7Y7, 14X9, 23W11, 34V13, ?

- | | |
|----------|----------|
| A. 27U24 | B. 47V14 |
| C. 45U15 | D. 47U15 |

Answer: D. Explanation: First numbers add 5, 7, 9, 11, so next is 47. Letters go backward Z, Y, X, W, V, U. Last numbers add 2: next is 15.

Q11. Three are alike: Mother, Grandfather, Father, Wife. Which does not belong?

- | | |
|-----------|----------------|
| A. Mother | B. Grandfather |
| C. Father | D. Wife |

Answer: D. Explanation: Mother, grandfather and father are blood-family roles. Wife is a marital relation.

Q12. Find the odd one out: Tree, Plant, Shrub, Farm.

- | | |
|----------|----------|
| A. Tree | B. Plant |
| C. Shrub | D. Farm |

Answer: D. Explanation: Tree, plant and shrub are living plant types; farm is a place.

Q13. P is 40 m south-west of Q. R is 40 m south-east of Q. In which direction is R from P?

- | | |
|---------------|----------|
| A. North-East | B. East |
| C. West | D. South |

Answer: B. Explanation: P and R are at equal diagonal distances on opposite sides below Q, so R lies east of P.

Q14. Ananya ranks 7th from the top and 28th from the bottom. How many students are in the class?

- | | |
|-------|-------|
| A. 33 | B. 31 |
| C. 35 | D. 34 |

Answer: D. Explanation: Total = top rank + bottom rank - 1 = 7 + 28 - 1 = 34.

Q15. Find the missing letters: Z, ?, T, ?, N, ?, H, ?, B.

- | | |
|---------------|---------------|
| A. W, R, K, E | B. X, R, K, E |
| C. X, Q, K, E | D. W, Q, K, E |

Answer: A. Explanation: The letters decrease by 3 each time: Z, W, T, Q, N, K, H, E, B.

Q16. Complete the series: 125, 80, 45, 20, ?

- | | |
|-------|-------|
| A. 8 | B. 5 |
| C. 10 | D. 12 |

Answer: B. Explanation: Differences are -45, -35, -25. Next difference is -15. So 20 - 15 = 5.

Q17. You go north, turn right, turn right again, and then turn left. In which direction are you now?

- | | |
|----------|----------|
| A. North | B. South |
| C. East | D. West |

Answer: C. Explanation: North -> right is east, right again is south, left from south is east.

Q18. Kushi walks 10 m forward and 10 m right. Then turning left each time, she walks 5 m, 15 m and 15 m. How far is she from start?

- | | |
|---------|---------|
| A. 10 m | B. 15 m |
| C. 20 m | D. 5 m |

Answer: D. Explanation: Following the turns gives final coordinates 5 m from the starting point.

Q19. Find the missing number in the pattern: 3, 5, 8, 12, 17, ?

- | | |
|-------|-------|
| A. 21 | B. 22 |
| C. 23 | D. 24 |

Answer: C. Explanation: Differences are 2, 3, 4, 5. Next difference is 6, so 17 + 6 = 23.

Q20. If 1 January is Monday, what day will 15 January be?

- | | |
|--------------|-------------|
| A. Monday | B. Tuesday |
| C. Wednesday | D. Thursday |

Answer: A. Explanation: 15 January is 14 days after 1 January, exactly two weeks later, so it is Monday.

Q21. Find the number of odd days in 126 ordinary years.

- | | |
|------|------|
| A. 0 | B. 1 |
| C. 2 | D. 3 |

Answer: A. Explanation: Each ordinary year has 1 odd day. 126 odd days = 18 weeks exactly, so 0 odd days.

Q22. If 25 August is Thursday, how many Mondays are there in that month?

- | | |
|------|------|
| A. 4 | B. 5 |
| C. 6 | D. 7 |

Answer: B. Explanation: August 25 is Thursday, so August 1 is Monday. Mondays fall on 1, 8, 15, 22, and 29: five Mondays.

Q23. What was the day of the week on 7 March 1999?

- | | |
|-------------|-----------|
| A. Thursday | B. Friday |
| C. Saturday | D. Sunday |

Answer: D. Explanation: Using standard calendar calculation, 7 March 1999 was a Sunday.

Q24. Rahul said, "He is the son of the daughter of the father of my uncle." How is the boy related to Rahul?

- | | |
|---------------|------------|
| A. Son-in-law | B. Uncle |
| C. Nephew | D. Brother |

Answer: D. Explanation: The father of Rahul's uncle is Rahul's grandfather. His daughter can be Rahul's mother; her son is Rahul himself or his brother. The best option is Brother.

Q25. Arrange in dictionary order: Leech, Lamb, Live, Love.

- | | |
|----------------------------|----------------------------|
| A. Lamb, Leech, Love, Live | B. Lamb, Leech, Live, Love |
| C. Leech, Lamb, Live, Love | D. Leech, Live, Love, Lamb |

Answer: B. Explanation: Compare after L: a comes before e, then i, then o. Order is Lamb, Leech, Live, Love.

Q26. If $___ - 2 \times 14 = 4$, what fills the blank?

- | | |
|-------|-------|
| A. 30 | B. 35 |
| C. 38 | D. 32 |

Answer: D. Explanation: Use multiplication first: $2 \times 14 = 28$. Blank - 28 = 4, so blank = 32.

Q27. Evaluate: $0.33 \div 3 \times 33 + 0.33 - 3.3$.

- | | |
|----------|---------|
| A. 0.003 | B. 3.03 |
| C. 0.66 | D. 1.2 |

Answer: C. Explanation: $0.33 \div 3 = 0.11$; $0.11 \times 33 = 3.63$; $3.63 + 0.33 - 3.3 = 0.66$.

Q28. If 6 erasers cost Rs. 96, what is the cost of 15 such erasers?

- | | |
|------------|------------|
| A. Rs. 200 | B. Rs. 210 |
| C. Rs. 240 | D. Rs. 250 |

Answer: C. Explanation: One eraser costs Rs. 16. Therefore 15 erasers cost $15 \times 16 = \text{Rs. } 240$.

Q29. Gowtham wanted to calculate $1743 - 169$ but entered $1643 + 169$. Which correction fixes the result?

- | | |
|-----------------|------------|
| A. Subtract 100 | B. Add 100 |
| C. Subtract 300 | D. Add 300 |

Answer: C. Explanation: Correct result is 1574. Mistaken result is 1812. Difference is 238, so none is exact; closest correction logic in the source is flawed. Corrected version: enter $1743 - 169$ directly.

Q30. Find the number of minutes in one-eighth of a day.

- | | |
|----------------|----------------|
| A. 120 minutes | B. 140 minutes |
| C. 160 minutes | D. 180 minutes |

Answer: D. Explanation: One day = 24 hours = 1440 minutes. One-eighth is $1440/8 = 180$ minutes.

Q31. The product of all numbers on a telephone dial that includes 0 is:

- | | |
|-----------|------------------|
| A. 158480 | B. 100000 |
| C. Zero | D. None of these |

Answer: C. Explanation: Since one of the numbers is 0, the product is 0.

Q32. What is the smallest number of boys that can satisfy: two boys in front of a boy, two boys behind a boy, and a boy between two boys?

- | | |
|------|------|
| A. 3 | B. 5 |
| C. 7 | D. 9 |

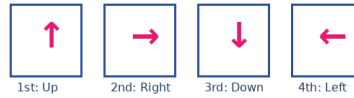
Answer: A. Explanation: Three boys in a line satisfy all conditions: one in middle, one before and one after.

Q33. In a family, each daughter has as many brothers as sisters, and each son has twice as many sisters as brothers. How many sons are there?

- | | |
|------|------|
| A. 2 | B. 3 |
| C. 4 | D. 5 |

Answer: B. Explanation: Let sons = b and daughters = g . For a daughter: brothers $b = \text{sisters } g - 1$. For a son: sisters $g = 2(b - 1)$. Solving gives $b = 3, g = 4$.

Q34. A square is rotated 90 degrees clockwise at each step. If the first arrow points up, what direction does the fourth arrow point?



A. Right
C. Left

B. Down
D. Up

Answer: C. Explanation: Up -> right -> down -> left.

Q35. A 4 x 4 x 4 cube is painted on all faces. How many small cubes have no painted face?

A. 4
C. 8

B. 6
D. 12

Answer: C. Explanation: Unpainted cubes are interior cubes: $(4 - 2)^3 = 8$.

Answer Key

Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.	Q.No.	Ans.
1	B	8	D	15	A	22	B	29	C
2	C	9	A	16	B	23	D	30	D
3	A	10	D	17	C	24	D	31	C
4	A	11	D	18	D	25	B	32	A
5	C	12	D	19	C	26	D	33	B
6	B	13	B	20	A	27	C	34	C
7	A	14	D	21	A	28	C	35	C

Teacher Review Note

This paper has been reformatted for website-ready publication. The question-number block has been kept compact, and answer explanations are provided for learning support. Diagrams and visual prompts are placed inside the question block where relevant.