

Class 5 · Reasoning Olympiad

Total questions 50	Total marks 60	Time 60 minutes	Negative marking None
-----------------------	-------------------	--------------------	--------------------------

Each question has four options, of which only one is correct. Mark your answer on the answer sheet. The Achievers Section carries higher marks per question. The answer key with full solutions is at the end of this paper.

This is original practice material written to the Level 1 pattern. It is not a past paper and is not affiliated with SOF or any official olympiad body.

Logical Reasoning

45 questions · 1 mark each · 45 marks

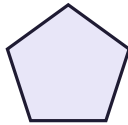
Q1. If the 8th of a month is a Saturday, what day of the week is the 17th of the same month?

- (A) Tuesday (B) Wednesday (C) Sunday (D) Monday

Q2. Which of these figures has exactly 5 lines of symmetry?



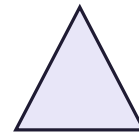
(A)



(B)



(C)



(D)

Q3. If FAN is written as 6 - 1 - 14 using the positions of the letters in the alphabet, how is CAT written?

- (A) 20 - 1 - 3 (B) 4 - 2 - 21 (C) 3 - 1 - 20 (D) 24 - 26 - 7

Q4. A father is 16 years older than his son. The son is 16 years old now. How old will the father be after 7 years?

- (A) 46 years (B) 40 years (C) 39 years (D) 32 years

Q5. Five friends A, B, C, D and E sit in a row of five seats. A sits at the extreme left end, D sits at the extreme right end, C sits exactly in the middle and B sits between A and C. Who sits in the fourth seat from the left?

- (A) B (B) D (C) E (D) C

Q6. Three of the following four are alike and form a group. Which one does NOT belong?

- (A) Apple (B) Mango (C) Potato (D) Banana

Q7. Which word would come FIRST in a dictionary?

- (A) marble (B) matter (C) maple (D) mother

Q8. Which letter comes next? G, I, L, P, ____

- (A) V (B) U (C) S (D) T

Q9. In a class, 16 students play cricket, 25 play football and 10 play both games. Every student plays at least one of the two. How many students are there in the class?

- (A) 32 (B) 21 (C) 41 (D) 31

Q10. 3 : 9 :: 8 : ____

- (A) 16 (B) 49 (C) 81 (D) 64

Q11. Which letter comes next? O, Q, S, U, ____

- (A) Y (B) W (C) V (D) X

Q12. Find the next number in the pattern: 4, 10, 22, 46, ____

- (A) 96 (B) 94 (C) 92 (D) 95

Q13. Bird : Nest :: Bee : ____

- (A) Cave (B) Burrow (C) Web (D) Hive

Q14. Arjun walks 9 m towards north, turns right and walks 2 m, then turns right again and walks 9 m. How far is Arjun from the starting point, and in which direction?

- (A) 2 m, East (B) 9 m, East (C) 2 m, West (D) 11 m, North

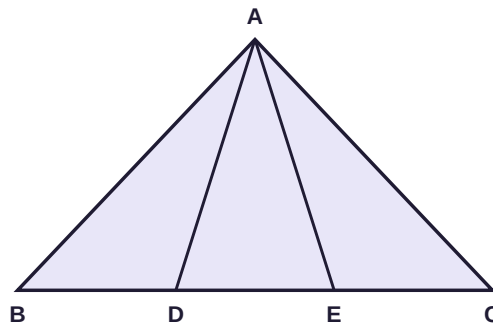
Q15. In a queue, Nita is 5th from the front and 7th from the back. How many people are in the queue altogether?

- (A) 10 (B) 13 (C) 12 (D) 11

Q16. Ravi walks 5 m north, then 10 m east, then 3 m south. Where is Ravi now, relative to the starting point?

- (A) 5 m north and 10 m east (B) 3 m north and 10 m east
(C) 2 m north and 11 m east (D) 2 m north and 10 m east

Q17. How many triangles are there in the given figure?



- (A) 6 (B) 8 (C) 5 (D) 7

Q18. In a certain code JAR is written as LCT. How is CAT written in that code?

- (A) ECV (B) VCE (C) FDW (D) AYR

Q19. In the first row the numbers are 6, 9 and 51. In the second row they are 6, 8 and 45. In the third row they are 2, 8 and ____ . The same rule applies to every row.

- (A) 12 (B) 13 (C) 15 (D) 14

Q20. Which one does NOT belong with the others?

- (A) Iron (B) Silver (C) Copper (D) Wood

Q21. In a row of 26 children, Arjun is 18th from the left end. What is Arjun's position from the right end?

- (A) 8th (B) 10th (C) 11th (D) 9th

Q22. Find the odd one out: 15, 21, 27, 30, 34

- (A) 27 (B) 30 (C) 34 (D) 21

Q23. Pointing to a boy in a photograph, Meera said, "He is the son of my paternal grandfather's only son." How is the boy related to Meera?

- (A) Uncle (B) Brother (C) Nephew (D) Cousin

Q24. Count backward in 2s: 14, 12, 10, 8, ____

- (A) 6 (B) 7 (C) 8 (D) 4

Q25. Find the next number in the pattern: 13, 21, 29, 37, ____

- (A) 53 (B) 46 (C) 45 (D) 37

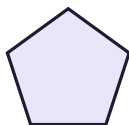
Q26. If the 8th of a month is a Thursday, what day of the week is the 19th of the same month?

- (A) Sunday (B) Monday (C) Wednesday (D) Tuesday

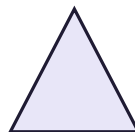
Q27. Which of these figures has exactly 3 lines of symmetry?



(A)



(B)



(C)



(D)

Q28. If DOG is written as 4 - 15 - 7 using the positions of the letters in the alphabet, how is INK written?

- (A) 18 - 13 - 16 (B) 11 - 14 - 9 (C) 10 - 15 - 12 (D) 9 - 14 - 11

Q29. A father is 13 years older than his son. The son is 7 years old now. How old will the father be after 2 years?

- (A) 23 years (B) 24 years (C) 20 years (D) 22 years

Q30. Which letter comes next? B, D, G, K, ____

- (A) N (B) Q (C) P (D) O

Q31. In a class, 13 students play cricket, 19 play football and 7 play both games. Every student plays at least one of the two. How many students are there in the class?

- (A) 32 (B) 25 (C) 26 (D) 18

Q32. $7 : 49 :: 9 : \underline{\hspace{1cm}}$

- (A) 18 (B) 64 (C) 100 (D) 81

Q33. Which letter comes next? E, H, K, N, ____

- (A) Q (B) R (C) P (D) T

Q34. Find the next number in the pattern: 5, 11, 23, 47, ____

- (A) 96 (B) 95 (C) 93 (D) 94

Q35. Cow : Calf :: Dog : ____

- (A) Kitten (B) Cub (C) Puppy (D) Foal

Q36. Kabir walks 7 m towards north, turns right and walks 8 m, then turns right again and walks 7 m. How far is Kabir from the starting point, and in which direction?

- (A) 8 m, West (B) 15 m, North (C) 8 m, East (D) 7 m, East

Q37. In a queue, Suresh is 6th from the front and 6th from the back. How many people are in the queue altogether?

- (A) 12 (B) 11 (C) 10 (D) 13

Q38. Sima walks 5 m north, then 4 m east, then 3 m south. Where is Sima now, relative to the starting point?

- (A) 5 m north and 4 m east (B) 3 m north and 4 m east
(C) 2 m north and 5 m east (D) 2 m north and 4 m east

Q39. In a certain code FAN is written as IDQ. How is SUN written in that code?

- (A) QXV (B) PRK (C) WYR (D) VXQ

Q40. In the first row the numbers are 5, 8 and 26. In the second row they are 5, 2 and 14. In the third row they are 7, 4 and ____ . The same rule applies to every row.

- (A) 22 (B) 21 (C) 24 (D) 23

Q41. In a row of 25 children, Sana is 8th from the left end. What is Sana's position from the right end?

- (A) 18th (B) 19th (C) 17th (D) 20th

Q42. Pointing to a boy in a photograph, Rahul said, "He is the son of my paternal grandfather's only son." How is the boy related to Rahul?

- (A) Cousin (B) Uncle (C) Nephew (D) Brother

Q43. Count backward in 3s: 30, 27, 24, 21, ____

- (A) 21 (B) 15 (C) 18 (D) 19

Q44. Find the next number in the pattern: 7, 12, 17, 22, ____

- (A) 22 (B) 28 (C) 32 (D) 27

Q45. If the 12th of a month is a Thursday, what day of the week is the 25th of the same month?

- (A) Tuesday (B) Thursday (C) Wednesday (D) Friday

Achievers Section

5 questions · 3 marks each · 15 marks

Q46. If BOOK is coded as DQQM, how is WIND coded?

- (A) YKPF (B) FPKY (C) UGLB (D) AMRH

Q47. The bar graph shows the number of books read by a class on each day of one week. How many books were read in the whole week?



- (A) 75 (B) 70 (C) 65 (D) 80

Q48. Why is it safer to switch off a computer using the Shut Down option rather than pulling out the plug?

- (A) It makes the computer faster next time (B) It cleans the screen
(C) It saves electricity only (D) It closes files properly so data is not lost

Q49. 12 taps together fill a tank in 6 minutes. How long will 6 taps of the same kind take to fill it?

- (A) 12 minutes (B) 6 minutes (C) 15 minutes (D) 9 minutes

Q50. Find the next number: 6, 8, 12, 18, 26, ____

- (A) 34 (B) 36 (C) 37 (D) 38

Answer Key

1	2	3	4	5	6	7	8	9	10
D	B	C	C	C	C	C	B	D	D
11	12	13	14	15	16	17	18	19	20
B	B	D	A	D	D	A	A	B	D
21	22	23	24	25	26	27	28	29	30
D	C	B	A	C	B	C	D	D	C
31	32	33	34	35	36	37	38	39	40
B	D	A	B	C	C	B	D	D	A
41	42	43	44	45	46	47	48	49	50
A	D	C	D	C	A	B	D	A	B

Solutions

Q1. (D) 9 days later is 1 week(s) and 2 day(s), so the day moves 2 place(s) on from Saturday to Monday.

Q2. (B) Counting lines of symmetry: rectangle has 2, regular pentagon has 5, square has 4, equilateral triangle has 3. The answer is figure (B).

Q3. (C) C is letter 3 and A is letter 1 and T is letter 20, so CAT = 3 - 1 - 20.

- Q4. (C) The father is $16 + 16 = 32$ now, so after 7 years he will be $32 + 7 = 39$ years.
- Q5. (C) Seat 1 = A, seat 3 = C, seat 5 = D. B must be between A and C, so B takes seat 2, and the only friend left for seat 4 is E.
- Q6. (C) Banana, Mango, Apple are all fruits; Potato is not.
- Q7. (C) In alphabetical order the words run maple, marble, matter, mother, so maple comes first.
- Q8. (B) The gaps grow by one each time (+2, +3, +4, +5), so after P the next letter is U.
- Q9. (D) $16 + 25 - 10 = 31$. The 10 who play both were counted twice, so they are subtracted once.
- Q10. (D) The second number is the first multiplied by itself: $3 \times 3 = 9$, so $8 \times 8 = 64$.
- Q11. (B) Each letter moves 2 place(s) forward in the alphabet, so after U comes W.
- Q12. (B) Each number is doubled and 2 is added: $46 \times 2 + 2 = 94$.
- Q13. (D) Nest is where a bird lives or belongs, in the same way Hive goes with bee.
- Q14. (A) The two 9 m walks (north, then south) cancel out, leaving only the 2 m walked towards the east. So the answer is 2 m, East.
- Q15. (D) Counting Nita only once: $5 + 7 - 1 = 11$ people.
- Q16. (D) The 3 m south cancels part of the 5 m north, leaving $5 - 3 = 2$ m north, and the 10 m east is unchanged. So Ravi is 2 m north and 10 m east.
- Q17. (A) Every triangle has apex A and two of the 4 base points as its other corners. Choosing 2 from 4 gives 6 triangles.
- Q18. (A) Each letter moves 2 place(s) forward in the alphabet, so CAT becomes ECV.
- Q19. (B) The rule is: multiply the two numbers, then subtract 3. Check: 6, 9 gives 51 and 6, 8 gives 45; so 2, 8 gives 13.
- Q20. (D) Wood is not a metal.
- Q21. (D) Position from the right = total - position from the left + 1 = $26 - 18 + 1 = 9$ th.
- Q22. (C) Every other number is a multiple of 3. 34 is not.
- Q23. (B) Meera's paternal grandfather's only son is Meera's own father, so that man's son is Meera's own sibling. The answer is Brother.
- Q24. (A) Subtracting 2 from 8 gives 6.
- Q25. (C) Each number is 8 more than the one before it, so the next is $37 + 8 = 45$.
- Q26. (B) 11 days later is 1 week(s) and 4 day(s), so the day moves 4 place(s) on from Thursday to Monday.
- Q27. (C) Counting lines of symmetry: rectangle has 2, regular pentagon has 5, equilateral triangle has 3, square has 4. The answer is figure (C).
- Q28. (D) I is letter 9 and N is letter 14 and K is letter 11, so $INK = 9 - 14 - 11$.
- Q29. (D) The father is $7 + 13 = 20$ now, so after 2 years he will be $20 + 2 = 22$ years.
- Q30. (C) The gaps grow by one each time (+2, +3, +4, +5), so after K the next letter is P.
- Q31. (B) $13 + 19 - 7 = 25$. The 7 who play both were counted twice, so they are subtracted once.
- Q32. (D) The second number is the first multiplied by itself: $7 \times 7 = 49$, so $9 \times 9 = 81$.
- Q33. (A) Each letter moves 3 place(s) forward in the alphabet, so after N comes Q.
- Q34. (B) Each number is doubled and 1 is added: $47 \times 2 + 1 = 95$.
- Q35. (C) The second word relates to the first in the same way Puppy relates to Dog.
- Q36. (C) The two 7 m walks (north, then south) cancel out, leaving only the 8 m walked towards the east. So the answer is 8 m, East.
- Q37. (B) Counting Suresh only once: $6 + 6 - 1 = 11$ people.
- Q38. (D) The 3 m south cancels part of the 5 m north, leaving $5 - 3 = 2$ m north, and the 4 m east is unchanged. So Sima is 2 m north and 4 m east.
- Q39. (D) Each letter moves 3 place(s) forward in the alphabet, so SUN becomes VXQ.

- Q40. (A) The rule is: add the two numbers and double the result. Check: 5, 8 gives 26 and 5, 2 gives 14; so 7, 4 gives 22.
- Q41. (A) Position from the right = total - position from the left + 1 = $25 - 8 + 1 = 18$ th.
- Q42. (D) Rahul's paternal grandfather's only son is Rahul's own father, so that man's son is Rahul's own sibling. The answer is Brother.
- Q43. (C) Subtracting 3 from 21 gives 18.
- Q44. (D) Each number is 5 more than the one before it, so the next is $22 + 5 = 27$.
- Q45. (C) 13 days later is 1 week(s) and 6 day(s), so the day moves 6 place(s) on from Thursday to Wednesday.
- Q46. (A) Every letter moves 2 place(s) forward, so WIND becomes YKPF.
- Q47. (B) $5 + 15 + 10 + 10 + 30 = 70$ books.
- Q48. (D) Shutting down lets the system finish writing files; cutting power can corrupt them. The answer is It closes files properly so data is not lost.
- Q49. (A) One tap alone would take $12 \times 6 = 72$ minutes. With 6 taps the time is $72 / 6 = 12$ minutes.
- Q50. (B) The gaps grow 2, 4, 6, 8, so the next gap is 10 and $26 + 10 = 36$.

Free practice paper from syllabax.com · more free sample papers for Classes 1–10 at syllabax.com/olympiad · not affiliated with SOF or any official olympiad body.