LRO · Original Practice Content

Class 3 | Logical Reasoning Olympiad

40 Questions · With Answer Key
Syllabax Olympiad Series
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Instructions: Each question has one correct answer. Choose the best option (A/B/C/D). Answer key is provided at the end. This paper is for practice only — not an official exam paper. Recommended time: **45 minutes**.

Q1. A train leaves Station A at 8:00 AM and travels at 60 km/h. It reaches Station B at 11:00 AM. What is the distance between A and B?

A. 120 km
B. 240 km
C. 180 km
D. 200 km

Q2. If MATHEMATICS is coded by reversing alternate pairs of letters, which code style produces 'AMTEHAITCMS'? Which approach: 'Adjacent letter swap' gives AMHTEMATICS. Choose the correct output for swapping each pair: MA-TH-EM-AT-IC-S. The sequence MA→AM, TH→HT, EM→ME, AT→TA, IC→CI, S→S gives:

A. AMHTMEATICS
B. AMHTMETACS
C. AMHTMETACI
D. AMHTEMTACS

Q3. In a class, boys are 60% and girls are 40%. If there are 18 boys, how many girls are there?

A. 10
B. 14
C. 12
D. 16

Q4. Find the NEXT TERM: 2, 3, 5, 8, 12, ___

A. 16
B. 18
C. 17
D. 15

Q5. ABCDE are sitting in a row. B is between A and C. E is to the right of D. D is next to C. The order from left to right is:

A. A, B, C, E, D
B. E, D, C, B, A
C. A, B, C, D, E
D. D, E, A, B, C

Q6. Which figure has the maximum number of lines of symmetry?

A. equilateral triangle
B. square
C. circle
D. rectangle

Q7. ODD ONE OUT: 8, 27, 64, 100, 125

A. 8 **B.** 27
C. 100 **D.** 64

Q8. A pipe fills a tank in 4 hours; another empties it in 6 hours. Both open together; the tank fills in:

A. 8 hours **B.** 10 hours
C. 12 hours **D.** 9 hours

Q9. What is the MINIMUM number of colours needed to colour a map so no two adjacent regions share a colour (Four Colour Theorem)?

A. 3 **B.** 5
C. 4 **D.** 6

Q10. The day after tomorrow is Sunday. What day was it yesterday?

A. Thursday **B.** Friday
C. Wednesday **D.** Saturday

Q11. If 1 pencil costs ₹5 and 1 pen costs ₹15, what is the cost of 3 pencils and 2 pens?

A. ₹40 **B.** ₹35
C. ₹45 **D.** ₹30

Q12. In a group: A > B > C > D > E in height. Who is second tallest?

A. A **B.** C
C. B **D.** D

Q13. Which letter is exactly in the MIDDLE of the English alphabet (26 letters)?

A. M and N **B.** M
C. N **D.** L and M

Q14. If 6 is to 36 as 8 is to ___?

A. 48 **B.** 56
C. 64 **D.** 72

Q15. A clock gains 2 minutes every hour. If it shows the correct time at 8 AM, what time does it show at 2 PM?

A. 2:10 PM
B. 2:14 PM
C. 2:12 PM
D. 2:08 PM

Q16. Which two letters come NEXT: AZ, BY, CX, ___?

A. EV
B. DX
C. DW
D. EW

Q17. If in a code, DESK = GKXO (each letter shifted by 3), then CHAIR = ?

A. FKDLU
B. FKHLU
C. FKDLU
D. FKDLX

Q18. Statements: All A are B. No B is C. Conclusion: No A is C. Is this valid?

A. invalid
B. possibly valid
C. valid
D. insufficient data

Q19. A bag contains 4 red, 5 blue, and 3 green balls. The probability of drawing a blue ball is:

A. 1/3
B. 5/7
C. 5/12
D. 1/4

Q20. Find the NEXT TERM: 1, 8, 27, 64, ___

A. 100
B. 121
C. 125
D. 144

Q21. What is the AREA of a right triangle with legs 6 cm and 8 cm?

A. 48 cm^2
B. 14 cm^2
C. 24 cm^2
D. 28 cm^2

Q22. If you remove the 5th letter from 'STUDENT', you get:

A. STUDE
B. STUDT
C. STDENT
D. STUNT

Q23. Which number is divisible by both 6 and 9?

A. 24 **B.** 36
C. 18 **D.** 27

Q24. In a sequence: 11, 13, 17, 19, 23, ___ (primes). What comes next?

A. 27 **B.** 28
C. 29 **D.** 31

Q25. Which statement is a TAUTOLOGY?

A. It will rain or it will not rain **B.** It will rain and it will not rain
C. Tomorrow is uncertain **D.** Weather is unpredictable

Q26. In how many ways can 3 books be arranged on a shelf?

A. 3 **B.** 9
C. 6 **D.** 12

Q27. A person faces East. He turns 90° clockwise, then 180° anti-clockwise. Which direction does he face now?

A. East **B.** West
C. South **D.** North

Q28. What fraction of a day is 6 hours?

A. 1/3 **B.** 1/2
C. 1/4 **D.** 1/6

Q29. Find the ODD ONE OUT: 3, 5, 7, 9, 11

A. 3 **B.** 5
C. 9 **D.** 11

Q30. A:B = 2:3, B:C = 4:5. Find A:C.

A. 2:5 **B.** 6:15
C. 8:15 **D.** 4:10

Q31. Which is the NEXT in the Fibonacci-like series: 2, 2, 4, 8, 16, ___? (each term = product of two preceding)

A. 32
B. 48
C. 128
D. 64

Q32. How many diagonals does a hexagon have?

A. 6
B. 12
C. 9
D. 15

Q33. If it takes 5 machines 5 minutes to make 5 widgets, how long does it take 100 machines to make 100 widgets?

A. 100 minutes
B. 20 minutes
C. 5 minutes
D. 50 minutes

Q34. A shopkeeper marks a price 25% above cost. He then gives a 20% discount. His profit% is:

A. 5%
B. 0%
C. 4%
D. 1%

Q35. LCM of 12 and 18 is:

A. 6
B. 24
C. 36
D. 72

Q36. If the product of two numbers is 36 and their HCF is 3, their LCM is:

A. 9
B. 12
C. 12
D. 18

Q37. 'Some teachers are students. All students are learners. Some learners are curious.' Which conclusion follows?

A. All teachers are learners
B. No teachers are curious
C. Some teachers are learners
D. All learners are students

Q38. If $5x - 3 = 17$, then $x = ?$

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

Q39. A cube has 6 faces, 12 edges, and ___ vertices.

A. 6 **B.** 10

C. 8 **D.** 12

Q40. Which number CANNOT be expressed as the sum of two primes?

A. 10 **B.** 14

C. 27 **D.** 20

Answer Key

Q1: C Q2: A Q3: C Q4: C Q5: C Q6: C Q7: C Q8: C Q9: C Q10: A

Q11: C Q12: C Q13: A Q14: C Q15: C Q16: C Q17: A Q18: C Q19: C

Q20: C Q21: C Q22: D Q23: C Q24: C Q25: A Q26: C Q27: D Q28: C

Q29: C Q30: C Q31: C Q32: C Q33: C Q34: B Q35: C Q36: C Q37: C

Q38: C Q39: C Q40: C