

# Class 5 · Science Olympiad

|                       |                   |                    |                          |
|-----------------------|-------------------|--------------------|--------------------------|
| Total questions<br>50 | Total marks<br>60 | Time<br>60 minutes | Negative marking<br>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

10 questions · 1 mark each · 10 marks

Q1. Which word would come FIRST in a dictionary?

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

Q2. Ravi walks 3 m north, then 9 m east, then 2 m south. Where is Ravi now, relative to the starting point?

- (A) 3 m north and 9 m east (B) 1 m north and 9 m east  
(C) 1 m north and 10 m east (D) 2 m north and 9 m east

Q3. Which letter comes next? A, C, F, J, \_\_\_\_

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

Q4. Pointing to a boy in a photograph, Anjali said, "He is the son of my paternal grandfather's only son." How is the boy related to Anjali?

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

Q5. A father is 23 years older than his son. The son is 11 years old now. How old will the father be after 6 years?

- (A) 40 years (B) 41 years (C) 46 years (D) 34 years

Q6. In a class, 20 students play cricket, 18 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) 38 (B) 18 (C) 28 (D) 29

Q7. Eye : See :: Ear : \_\_\_\_

- (A) Hear (B) Touch (C) Smell (D) Taste

Q8. Count backward in 5s: 60, 55, 50, 45, \_\_\_\_

- (A) 35 (B) 45 (C) 40 (D) 41

Q9. If the 8th of a month is a Saturday, what day of the week is the 19th of the same month?

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

Q10. Find the odd one out: 10, 12, 16, 36, 40

- (A) 40 (B) 10 (C) 12 (D) 16

## Science

35 questions · 1 mark each · 35 marks

- Q11. Which process do green plants use to make their own food?  
(A) Photosynthesis (B) Transpiration  
(C) Digestion (D) Respiration
- Q12. What should we do before eating food?  
(A) Play in the mud (B) Nothing at all  
(C) Touch a stray animal (D) Wash our hands
- Q13. What is the natural satellite of the Earth called?  
(A) The Sun (B) A comet (C) The Moon (D) Mars
- Q14. Which of these floats on water?  
(A) An iron nail (B) A coin  
(C) A stone (D) A wooden stick
- Q15. Which food gives us the most energy?  
(A) Minerals (B) Water  
(C) Vitamins (D) Carbohydrates
- Q16. What do plants need to grow?  
(A) Only plastic (B) Only paper  
(C) Only stones (D) Water and sunlight
- Q17. Which organ helps us to breathe?  
(A) The heart (B) The stomach (C) The lungs (D) The kidney
- Q18. How many teeth sets do humans get in a lifetime?  
(A) Four (B) Two (C) One (D) Three
- Q19. What do we call the water cycle stage where clouds form?  
(A) Filtration (B) Condensation  
(C) Precipitation (D) Evaporation
- Q20. Which insect makes honey?  
(A) Spider (B) Ant (C) Bee (D) Fly
- Q21. Which animal is known as the ship of the desert?  
(A) Donkey (B) Horse (C) Camel (D) Elephant
- Q22. Which of these is used to grow plants at home?  
(A) Glass in a pot (B) Plastic in a pot  
(C) Soil in a pot (D) Paper in a pot
- Q23. Which part of a plant takes in water from the soil?  
(A) The fruit (B) The leaf (C) The root (D) The flower
- Q24. Which season is the hottest in India?  
(A) Winter (B) Monsoon (C) Summer (D) Spring

- Q25. Water freezes into ice at which temperature?  
(A) 0°C (B) 10°C (C) -100°C (D) 100°C
- Q26. Which of these is a baby animal of a dog?  
(A) Kitten (B) Puppy (C) Calf (D) Chick
- Q27. Which of these is an acid?  
(A) Soap solution (B) Baking soda solution  
(C) Lime water (D) Lemon juice
- Q28. Which of these is used to measure length?  
(A) A thermometer (B) A ruler  
(C) A weighing scale (D) A clock
- Q29. Where do fish take in oxygen from water?  
(A) Through their fins (B) Through their scales  
(C) Through their gills (D) Through their tail
- Q30. What is ice made of?  
(A) Frozen sand (B) Frozen milk (C) Frozen water (D) Frozen air
- Q31. Which of these is a herbivore — an animal that eats only plants?  
(A) Tiger (B) Cow (C) Eagle (D) Lion
- Q32. Where does a bird usually keep its eggs?  
(A) In a nest (B) In a web (C) In a burrow (D) In a hive
- Q33. Which of these is a non-biodegradable waste?  
(A) Plastic bag (B) Paper  
(C) Cotton cloth (D) Vegetable peel
- Q34. Which of these is a healthy food?  
(A) Fried chips (B) Candy (C) Cold drink (D) Fruit
- Q35. How many legs does an insect have?  
(A) Eight (B) Ten (C) Four (D) Six
- Q36. Which of these is a baby animal of a cat?  
(A) Puppy (B) Calf (C) Kitten (D) Cub
- Q37. Which planet is known as the Red Planet?  
(A) Jupiter (B) Venus (C) Saturn (D) Mars
- Q38. What happens to ice kept in the hot sun?  
(A) It becomes a stone (B) It turns into sand  
(C) It stays the same (D) It melts into water
- Q39. Green colour in leaves is due to which pigment?  
(A) Haemoglobin (B) Chlorophyll (C) Melanin (D) Carotene

Q40. Which of these is used to measure time?

- (A) A clock (B) A weighing scale  
(C) A thermometer (D) A ruler

Q41. Which gas in the air do we need to breathe?

- (A) Nitrogen (B) Helium  
(C) Oxygen (D) Carbon dioxide

Q42. At what temperature does water boil at normal pressure?

- (A) 212°C (B) 50°C (C) 100°C (D) 0°C

Q43. Which liquid helps digest food in the mouth?

- (A) Sweat (B) Bile (C) Blood (D) Saliva

Q44. Which part of the body controls all our actions and thoughts?

- (A) The stomach (B) The lungs (C) The heart (D) The brain

Q45. Which simple machine is used in a see-saw?

- (A) Wedge (B) Screw (C) Pulley (D) Lever

### Achievers Section

5 questions · 3 marks each · 15 marks

Q46. If Independence Day falls on a Friday, what day will Teachers' Day fall on in the same year? (15 August to 5 September)

- (A) Friday (B) Sunday (C) Saturday (D) Thursday

Q47. If RING is coded as ULQJ, how is ROAD coded?

- (A) XUGJ (B) OLXA (C) GDRU (D) URDG

Q48. 3 taps together fill a tank in 24 minutes. How long will 6 taps of the same kind take to fill it?

- (A) 24 minutes (B) 12 minutes (C) 15 minutes (D) 9 minutes

Q49. Find the next number: 4, 6, 10, 16, 24, \_\_\_\_

- (A) 35 (B) 36 (C) 32 (D) 34

Q50. Using each of the digits 0, 1, 4, 9 exactly once, what is the smallest 4-digit number that can be formed?

- (A) 1058 (B) 0149 (C) 1049 (D) 9410

### Answer Key

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| D  | B  | A  | D  | A  | C  | A  | C  | A  | B  |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| A  | D  | C  | D  | D  | D  | C  | B  | B  | C  |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| C  | C  | C  | C  | A  | B  | D  | B  | C  | C  |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |

|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>B</b> | <b>A</b> | <b>A</b> | <b>D</b> | <b>D</b> | <b>C</b> | <b>D</b> | <b>D</b> | <b>B</b> | <b>A</b> |
| 41       | 42       | 43       | 44       | 45       | 46       | 47       | 48       | 49       | 50       |
| <b>C</b> | <b>C</b> | <b>D</b> | <b>D</b> | <b>D</b> | <b>A</b> | <b>D</b> | <b>B</b> | <b>D</b> | <b>C</b> |

## Solutions

- Q1. (D) In alphabetical order the words run marble, matter, minute, mother, so marble comes first.
- Q2. (B) The 2 m south cancels part of the 3 m north, leaving  $3 - 2 = 1$  m north, and the 9 m east is unchanged. So Ravi is 1 m north and 9 m east.
- Q3. (A) The gaps grow by one each time (+2, +3, +4, +5), so after J the next letter is O.
- Q4. (D) Anjali's paternal grandfather's only son is Anjali's own father, so that man's son is Anjali's own sibling. The answer is Brother.
- Q5. (A) The father is  $11 + 23 = 34$  now, so after 6 years he will be  $34 + 6 = 40$  years.
- Q6. (C)  $20 + 18 - 10 = 28$ . The 10 who play both were counted twice, so they are subtracted once.
- Q7. (A) The second word relates to the first in the same way Hear relates to Ear.
- Q8. (C) Subtracting 5 from 45 gives 40.
- Q9. (A) 11 days later is 1 week(s) and 4 day(s), so the day moves 4 place(s) on from Saturday to Wednesday.
- Q10. (B) Every other number is a multiple of 4. 10 is not.
- Q11. (A) Photosynthesis makes glucose from carbon dioxide and water using sunlight.
- Q12. (D) Washing hands before eating keeps germs away. The answer is Wash our hands.
- Q13. (C) The Moon is the Earth's only natural satellite.
- Q14. (D) Wood is lighter than water for its size, so it floats. The answer is A wooden stick.
- Q15. (D) Carbohydrates such as rice, wheat and potato are the body's main energy food.
- Q16. (D) Plants need water, sunlight, air and soil to grow. The answer is Water and sunlight.
- Q17. (C) The lungs take in oxygen from the air and give out carbon dioxide.
- Q18. (B) We get milk teeth first and then permanent teeth, so two sets.
- Q19. (B) Water vapour cools and condenses into tiny droplets, forming clouds. The answer is Condensation.
- Q20. (C) Honey bees make honey in their hive.
- Q21. (C) The camel can travel long distances across the desert with very little water.
- Q22. (C) Plants grow in soil, which holds water and nutrients. The answer is Soil in a pot.
- Q23. (C) Roots absorb water and minerals from the soil and hold the plant firmly in place. The answer is The root.
- Q24. (C) Summer is the hottest season.
- Q25. (A) At normal pressure water freezes at  $0^{\circ}\text{C}$  and boils at  $100^{\circ}\text{C}$ .
- Q26. (B) A baby dog is called a puppy.
- Q27. (D) Lemon juice contains citric acid and tastes sour; the others are bases.
- Q28. (B) A ruler measures length.
- Q29. (C) Fish breathe using gills, which take dissolved oxygen out of the water. The answer is Through their gills.
- Q30. (C) Ice is water that has frozen solid. The answer is Frozen water.
- Q31. (B) A cow eats only plants, so it is a herbivore. Lions, tigers and eagles eat meat.
- Q32. (A) Birds lay their eggs in a nest.
- Q33. (A) Plastic does not rot away naturally, so it is non-biodegradable. The answer is Plastic bag.
- Q34. (D) Fruit gives us vitamins and keeps us healthy.
- Q35. (D) All insects have six legs. Spiders, which have eight, are not insects.
- Q36. (C) A baby cat is called a kitten.

- Q37. (D) Mars looks red because of the iron oxide dust on its surface.
- Q38. (D) Heat makes ice melt back into water. The answer is It melts into water.
- Q39. (B) Chlorophyll gives leaves their green colour and traps sunlight for photosynthesis.
- Q40. (A) A clock measures time.
- Q41. (C) We breathe in oxygen and breathe out carbon dioxide.
- Q42. (C) Water boils at  $100^{\circ}\text{C}$  at normal atmospheric pressure.
- Q43. (D) Saliva moistens food and begins the digestion of starch in the mouth.
- Q44. (D) The brain is the control centre of the body.
- Q45. (D) A see-saw is a lever balancing on a pivot called the fulcrum.
- Q46. (A) From 15 August to 5 September is 21 days, exactly three weeks, so it is the same weekday: Friday.
- Q47. (D) Every letter moves 3 place(s) forward, so ROAD becomes URDG.
- Q48. (B) One tap alone would take  $3 \times 24 = 72$  minutes. With 6 taps the time is  $72 / 6 = 12$  minutes.
- Q49. (D) The gaps grow 2, 4, 6, 8, so the next gap is 10 and  $24 + 10 = 34$ .
- Q50. (C) A 4-digit number cannot begin with 0, so the smallest possible first digit is 1. The remaining digits are then placed in increasing order: 1049.

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