

Class 6 · Science 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

10 questions · 1 mark each · 10 marks

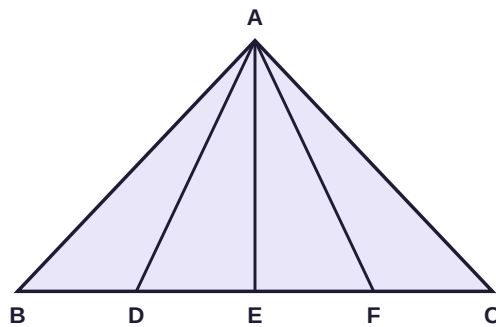
Q1. Arjun walks 3 m towards north, turns right and walks 2 m, then turns right again and walks 3 m. How far is Arjun from the starting point, and in which direction?

- (A) 2 m, East (B) 5 m, North (C) 3 m, East (D) 2 m, West

Q2. In a class, 24 students play cricket, 17 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) 31 (C) 41 (D) 21

Q3. How many triangles are there in the given figure?



- (A) 12 (B) 10 (C) 9 (D) 11

Q4. If the 15th of a month is a Tuesday, what day of the week is the 26th of the same month?

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

Q5. Find the odd one out: 14, 33, 35, 56, 77

- (A) 77 (B) 35 (C) 33 (D) 14

Q6. $3 : 9 :: 6 : \underline{\hspace{1cm}}$

- (A) 49 (B) 36 (C) 37 (D) 25

Q7. Find the next number in the pattern: 5, 13, 29, 61, $\underline{\hspace{1cm}}$

- (A) 123 (B) 125 (C) 128 (D) 122

Q8. Sima walks 7 m north, then 7 m east, then 5 m south. Where is Sima now, relative to the starting point?

- (A) 2 m north and 8 m east (B) 3 m north and 7 m east
(C) 7 m north and 7 m east (D) 2 m north and 7 m east

Q9. In the first row the numbers are 8, 3 and 23. In the second row they are 8, 5 and 39. In the third row they are 4, 8 and ____ . The same rule applies to every row.

- (A) 30 (B) 33 (C) 31 (D) 32

Q10. Eye : See :: Ear : ____

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

Science

35 questions · 1 mark each · 35 marks

Q11. What happens to ice kept in the hot sun?

- (A) It becomes a stone (B) It melts into water
(C) It turns into sand (D) It stays the same

Q12. Which of these is a major cause of global warming?

- (A) Planting more trees (B) Using solar energy
(C) Excess carbon dioxide in the atmosphere (D) Walking to school

Q13. How many legs does an insect have?

- (A) Eight (B) Ten (C) Six (D) Four

Q14. How many teeth sets do humans get in a lifetime?

- (A) Three (B) Two (C) One (D) Four

Q15. Which gas do living things release during respiration?

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

Q16. What is the process of water changing into vapour called?

- (A) Melting (B) Freezing (C) Condensation (D) Evaporation

Q17. Which of these floats on water?

- (A) A wooden stick (B) A coin
(C) An iron nail (D) A stone

Q18. What is the function of the root hairs of a plant?

- (A) To store sunlight (B) To hold the flower
(C) To make food (D) To absorb water and minerals

Q19. Which vitamin do we get from sunlight?

- (A) Vitamin C (B) Vitamin K (C) Vitamin D (D) Vitamin A

Q20. Which of these is a physical change?

- (A) Cooking of food (B) Rusting of iron
(C) Burning of paper (D) Melting of ice

Q21. Which gas do plants take in during photosynthesis?

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

- Q22. What is the process of separating salt from sea water by heating called?
(A) Sublimation (B) Filtration
(C) Evaporation (D) Distillation of solids
- Q23. Which part of the body controls all our actions and thoughts?
(A) The heart (B) The brain (C) The stomach (D) The lungs
- Q24. Which process do green plants use to make their own food?
(A) Photosynthesis (B) Respiration
(C) Transpiration (D) Digestion
- Q25. How long does the Earth take to complete one rotation on its axis?
(A) 12 hours (B) 30 days (C) 24 hours (D) 365 days
- Q26. What is the normal body temperature of a healthy human?
(A) About 30°C (B) About 42°C (C) About 37°C (D) About 25°C
- Q27. Which of these materials is attracted by a magnet?
(A) Paper (B) Glass (C) Iron (D) Cloth
- Q28. Which gas in the air do we need to breathe?
(A) Nitrogen (B) Carbon dioxide
(C) Oxygen (D) Helium
- Q29. Which simple machine is used in a see-saw?
(A) Wedge (B) Lever (C) Screw (D) Pulley
- Q30. Deficiency of which vitamin causes scurvy?
(A) Vitamin B12 (B) Vitamin D (C) Vitamin A (D) Vitamin C
- Q31. How many planets are there in our solar system?
(A) Eight (B) Nine (C) Ten (D) Seven
- Q32. Which organ helps us to breathe?
(A) The lungs (B) The heart (C) The stomach (D) The kidney
- Q33. Which of these is a good conductor of electricity?
(A) Copper (B) Rubber (C) Wood (D) Plastic
- Q34. At what temperature does water boil at normal pressure?
(A) 212°C (B) 50°C (C) 100°C (D) 0°C
- Q35. Which of these is an acid?
(A) Lime water (B) Baking soda solution
(C) Soap solution (D) Lemon juice
- Q36. Which force pulls objects towards the Earth?
(A) Magnetism (B) Friction (C) Gravity (D) Pressure
- Q37. Green colour in leaves is due to which pigment?
(A) Carotene (B) Melanin (C) Chlorophyll (D) Haemoglobin

Q38. What do we call animals that are active at night?

- (A) Amphibians (B) Aquatic animals
(C) Herbivores (D) Nocturnal animals

Q39. Which liquid helps digest food in the mouth?

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

Q40. Which part of a plant makes its food?

- (A) The leaf (B) The seed (C) The root (D) The stem

Q41. What kind of energy does a moving object have?

- (A) Nuclear energy (B) Kinetic energy
(C) Sound energy (D) Chemical energy

Q42. Which planet is known as the Red Planet?

- (A) Mars (B) Venus (C) Saturn (D) Jupiter

Q43. How many bones does an adult human body have?

- (A) 206 (B) 300 (C) 212 (D) 201

Q44. What is the basic unit of life?

- (A) The organ (B) The tissue (C) The cell (D) The atom

Q45. Which of these is a non-biodegradable waste?

- (A) Vegetable peel (B) Plastic bag
(C) Cotton cloth (D) Paper

Achievers Section

5 questions · 3 marks each · 15 marks

Q46. Rahul finished the puzzle in two minutes and said it was 'to break the ice'. What did he mean?

- (A) to feel cold (B) to go skating
(C) to spoil a plan (D) to start a conversation

Q47. A file is 2 megabytes. Roughly how many kilobytes is that?

- (A) About 200 KB (B) About 2,000 KB
(C) About 2 KB (D) About 20 KB

Q48. A boy pushes a heavy box but it does not move. Which force is stopping it?

- (A) Buoyancy (B) Magnetism (C) Gravity (D) Friction

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

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

Q50. You must be 18 to vote in India. A student turns 18 in March. Can they vote in an election held in June of that year?

- (A) No, voting starts at 21 (B) No, only after turning 19
(C) Only with a parent present (D) Yes, because they are already 18 by then

Answer Key

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

Solutions

Q1. (A) The two 3 m walks (north, then south) cancel out, leaving only the 2 m walked towards the east. So the answer is 2 m, East.

Q2. (B) $24 + 17 - 10 = 31$. The 10 who play both were counted twice, so they are subtracted once.

Q3. (B) Every triangle has apex A and two of the 5 base points as its other corners. Choosing 2 from 5 gives 10 triangles.

Q4. (D) 11 days later is 1 week(s) and 4 day(s), so the day moves 4 place(s) on from Tuesday to Saturday.

Q5. (C) Every other number is a multiple of 7. 33 is not.

Q6. (B) The second number is the first multiplied by itself: $3 \times 3 = 9$, so $6 \times 6 = 36$.

Q7. (B) Each number is doubled and 3 is added: $61 \times 2 + 3 = 125$.

Q8. (D) The 5 m south cancels part of the 7 m north, leaving $7 - 5 = 2$ m north, and the 7 m east is unchanged. So Sima is 2 m north and 7 m east.

Q9. (C) The rule is: multiply the two numbers, then subtract 1. Check: 8, 3 gives 23 and 8, 5 gives 39; so 4, 8 gives 31.

Q10. (C) The second word relates to the first in the same way Hear relates to Ear.

Q11. (B) Heat makes ice melt back into water. The answer is It melts into water.

Q12. (C) Greenhouse gases such as carbon dioxide trap heat and warm the planet. The answer is Excess carbon dioxide in the atmosphere.

Q13. (C) All insects have six legs. Spiders, which have eight, are not insects.

Q14. (B) We get milk teeth first and then permanent teeth, so two sets.

Q15. (A) Respiration uses oxygen and releases carbon dioxide.

Q16. (D) Evaporation is liquid water turning into vapour; condensation is the reverse.

Q17. (A) Wood is lighter than water for its size, so it floats. The answer is A wooden stick.

Q18. (D) Root hairs greatly increase the surface for absorbing water and minerals. The answer is To absorb water and minerals.

Q19. (C) Our skin makes vitamin D when sunlight falls on it; it helps build strong bones.

Q20. (D) Melting changes only the state, not the substance, so it is a physical change. The answer is Melting of ice.

Q21. (B) Plants take in carbon dioxide and release oxygen during photosynthesis.

Q22. (C) Heating the water away leaves the salt behind - this is evaporation.

Q23. (B) The brain is the control centre of the body.

Q24. (A) Photosynthesis makes glucose from carbon dioxide and water using sunlight.

- Q25. (C) One rotation takes about 24 hours and gives us day and night.
- Q26. (C) Normal human body temperature is about 37°C (98.6°F).
- Q27. (C) Magnets attract iron, nickel and cobalt. Glass, paper and cloth are not magnetic.
- Q28. (C) We breathe in oxygen and breathe out carbon dioxide.
- Q29. (B) A see-saw is a lever balancing on a pivot called the fulcrum.
- Q30. (D) Scurvy is caused by a lack of vitamin C, found in citrus fruits and amla.
- Q31. (A) There are eight planets, from Mercury to Neptune.
- Q32. (A) The lungs take in oxygen from the air and give out carbon dioxide.
- Q33. (A) Metals such as copper conduct electricity; rubber, wood and plastic are insulators.
- Q34. (C) Water boils at 100°C at normal atmospheric pressure.
- Q35. (D) Lemon juice contains citric acid and tastes sour; the others are bases.
- Q36. (C) Gravity is the force that pulls every object towards the centre of the Earth.
- Q37. (C) Chlorophyll gives leaves their green colour and traps sunlight for photosynthesis.
- Q38. (D) Animals such as owls and bats that are active at night are called nocturnal. The answer is Nocturnal animals.
- Q39. (B) Saliva moistens food and begins the digestion of starch in the mouth.
- Q40. (A) Leaves make food by photosynthesis, using sunlight, water and carbon dioxide. The answer is The leaf.
- Q41. (B) Energy due to motion is called kinetic energy.
- Q42. (A) Mars looks red because of the iron oxide dust on its surface.
- Q43. (A) An adult skeleton has 206 bones; a baby is born with about 300, which later fuse.
- Q44. (C) Every living thing is made of cells, the basic unit of life. The answer is The cell.
- Q45. (B) Plastic does not rot away naturally, so it is non-biodegradable. The answer is Plastic bag.
- Q46. (D) In this sentence 'to break the ice' means to start a conversation.
- Q47. (B) 1 megabyte is about 1,000 kilobytes, so 2 MB is about 2,000 KB.
- Q48. (D) Friction between the box and the floor opposes the push.
- Q49. (C) The gaps grow 2, 4, 6, 8, so the next gap is 10 and $24 + 10 = 34$.
- Q50. (D) The voting age is 18, and the student has already turned 18 before the election. The answer is Yes, because they are already 18 by then.

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.