

IQNexus Science Olympiad (IQSO) – Class 4 Sample Paper

Total Questions: 30

Total Marks: 100

Time: 1 Hour

Student Name: _____

Class: _____

Section: _____

Roll No.: _____

School Name: _____

Section 1: Logical Reasoning & Science Puzzles (5 Questions, 10 Marks)

(Each question carries 2 marks)

1. If Amit is observing the shadow of a tree at 9 AM, in which direction will the shadow most likely fall?

- A) East
- B) West
- C) North
- D) South

2. Identify the odd one out based on their characteristics:

- A) Sun
- B) Moon
- C) Star
- D) Planet

3. A scientist observes a new type of fish that glows in the dark. What is the most logical explanation for this?

- A) The fish eats glowing plants
- B) The fish has special light-producing cells
- C) The fish is afraid of darkness
- D) The fish drinks glowing water

4. In a pattern of numbers related to the number of legs of animals:

Chicken → 2, Dog → 4, Spider → ?

What should replace ‘?’

- A) 6
- B) 8
- C) 10
- D) 12

5. A boy sees a rainbow but his friend standing nearby does not. What is the most likely reason?

- A) The friend is looking in the wrong direction
- B) The boy has better eyesight
- C) The rainbow moves away from the friend
- D) The boy is standing closer to the sun

(Each question carries 3 marks)

6. Which of the following is a property of air?

- A) It has color
- B) It has weight
- C) It is visible
- D) It is solid

7. What happens to water when it is heated?

- A) It turns into ice
- B) It expands and turns into gas
- C) It remains the same
- D) It turns into salt

8. Which of the following animals breathes through spiracles?

- A) Fish
- B) Elephant
- C) Butterfly
- D) Frog

9. The main function of roots in a plant is to:

- A) Make food
- B) Absorb water and minerals
- C) Produce oxygen
- D) Help the plant move

10. Which of the following is an example of a reversible change?

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

11. Which gas do plants use for photosynthesis?

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

12. If a magnet is cut into two equal halves, then:

- A) One piece will have only a north pole and the other only a south pole
- B) Both pieces will have a north and a south pole
- C) The pieces will lose their magnetism
- D) The pieces will attract only wood

13. Which of the following is a good conductor of electricity?

- A) Plastic spoon
- B) Wooden stick
- C) Copper wire
- D) Rubber band

14. A camel can survive in the desert for a long time without drinking water because:

- A) It does not sweat
- B) It stores water in its hump
- C) It eats sand
- D) It has strong legs

15. What force helps us to walk on the ground without slipping?

- A) Gravity
- B) Magnetism
- C) Friction
- D) Air pressure

16. The process by which plants release oxygen into the air is called:

- A) Germination
- B) Evaporation
- C) Photosynthesis
- D) Transpiration

17. Which part of the human digestive system absorbs nutrients from food?

- A) Stomach
- B) Liver
- C) Small intestine
- D) Large intestine

18. Why do we see lightning before we hear thunder?

- A) Sound travels faster than light
- B) Light travels faster than sound

- C) The clouds reflect sound waves
- D) Thunder makes the light move faster

19. Which of the following is NOT an example of a natural fiber?

- A) Wool
- B) Silk
- C) Nylon
- D) Cotton

20. What is the function of the skeleton in the human body?

- A) Pumping blood
- B) Producing oxygen
- C) Giving shape and support
- D) Making food

Section 3: Scientific Aptitude & Application-based Questions (5 Questions, 25 Marks)

(Each question carries 5 marks)

21. A scientist placed two identical plants in separate rooms. One plant received sunlight, while the other did not. What will happen to the plant kept in the dark room?

- A) It will grow taller
- B) It will turn yellow and die
- C) It will grow healthier than the other plant

D) It will produce more oxygen

22. Rahul placed a spoon in a glass of water and saw that it looked bent. This happened due to:

A) Reflection

B) Refraction

C) Absorption

D) Evaporation

23. Why do astronauts wear special suits in space?

A) To stay warm in the cold environment

B) To breathe oxygen and protect from space conditions

C) To look different from people on Earth

D) To make them walk faster

24. A glass filled with ice cubes was left outside on a hot day. After a while, water droplets appeared on the outside of the glass. This happened due to:

A) Evaporation

B) Condensation

C) Freezing

D) Melting

25. A rubber ball is placed on a slope and starts rolling down. What force causes this motion?

A) Friction

B) Gravity

C) Magnetism

D) Air resistance

Section 4: HOTS (Higher Order Thinking Skills) (5 Questions, 20 Marks)

(Each question carries 4 marks)

26. A mother bird feeds her chicks by dropping food into their open beaks. What adaptation allows the chicks to know when to open their beaks?

- A) They can smell the food from far away
- B) They recognize the sound of the mother
- C) They have sharp eyesight
- D) Their beaks sense vibrations in the air

27. Why does a metal pan have a plastic handle?

- A) Plastic makes the pan stronger
- B) Plastic prevents heat from burning hands
- C) Plastic is heavier than metal
- D) Plastic changes the taste of food

28. If all bees disappeared from Earth, what would be the most immediate effect?

- A) Decrease in oxygen levels
- B) Shortage of honey for humans
- C) Many plants would not be pollinated and crops would reduce
- D) More insects would take their place

29. A child rubs a balloon on a woolen sweater, and the balloon sticks to the wall. What scientific principle explains this?

- A) Magnetism
- B) Static electricity
- C) Gravity
- D) Chemical reaction

30. Which of these best explains why fish can live underwater but humans cannot?

- A) Fish are smaller than humans
- B) Fish can hold their breath longer
- C) Fish have gills to extract oxygen from water
- D) Fish swim faster than human

Answer Key – IQNexus Science Olympiad (IQSO) Class 4

- 1. **B**
- 2. **B**
- 3. **B**
- 4. **B**
- 5. **A**
- 6. **B**
- 7. **B**
- 8. **C**
- 9. **B**
- 10. **B**
- 11. **C**
- 12. **B**
- 13. **C**
- 14. **B**
- 15. **C**
- 16. **C**

- 17. **C**
 - 18. **B**
 - 19. **C**
 - 20. **C**
 - 21. **B**
 - 22. **B**
 - 23. **B**
 - 24. **B**
 - 25. **B**
 - 26. **B**
 - 27. **B**
 - 28. **C**
 - 29. **B**
 - 30. **C**
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