INTERNATIONAL OLYMPIAD ACADEMY
CSAR Learning Solutions Pvt. Ltd. initiative

SAMPLE PAPER
2025-26

GRADE – 3 & 4
CATEGORY: NEWTON

CSAR INTERNATIONAL SCIENCE OLYMPIAD

Basic: (3 Points)

1. When you look into a shiny mirror, you see your own face. What does the mirror do with the light to let you see yourself?

(A) Bends light

(B) Stops light

(C) Reflects light

(D) Makes light

(E) Absorbs light

2. If the air around us becomes very dirty with smoke, it can make people sick. Why is clean air so important for our health?

(A) For playing

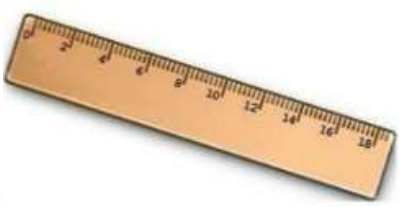
(B) For breathing

(C) For seeing

(D) For talking

(E) For sleeping

3. If two friends measure the same table, one using their hand and the other using a ruler, why might their measurements be different?



(A) Rulers are long

(B) Hands are different

(C) Rulers are plastic

(D) Tables vary

(E) Friends disagree

4. If you see a small fire starting in a wastebasket, what is the safest and quickest first step to try and put it out?

(A) Run away

(B) Call friend

(C) Pour water

(D) Hide it

(E) Blow hard

5. Windows in houses are almost always made of glass. What special property of glass makes it suitable for windows?

(A) It is strong

(B) It is heavy

(C) It is transparent

(D) It is soft

(E) It is cheap

6. When astronauts look at Earth from space, they often call it the "Blue Planet." What covers most of Earth's surface, giving it this blue appearance?

(A) Green trees

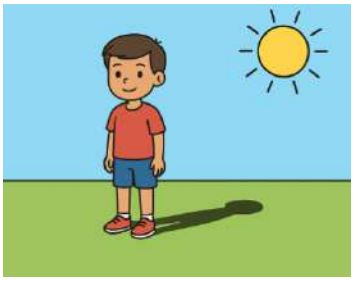
(B) White clouds

(C) Brown land

(D) Blue oceans

(E) Grey rocks

7. On a sunny day, your shadow becomes shorter at noon. Why does this happen?



(A) The Sun is high in the sky

(B) Clouds eat the shadow

(C) Shadows do not appear at noon

(D) Your legs become shorter at noon

(E) Wind blows the shadow away

8. When you pluck a guitar string, it vibrates and makes a sound. What is produced by the vibration of the string?

(A) Light waves

(B) Heat energy

(C) Sound waves

(D) Electric current

(E) Magnetic force

Foundation: (4 Points)

9. A rock sits on a mountain for many years, and a tree grows taller each year. Why does the tree belong in the "living" group, but the rock belongs in the "non-living" group?

(A) Rock does not move

(B) Rock has a set shape

(C) Tree changes its leaves

(D) Tree can make more trees

(E) Tree needs sunlight

10. A farmer finds fox paw prints near his damaged cornfield. The fox is an omnivore. Why does being an omnivore help the fox survive better than just being a meat-eater?

(A) Eats only green grass

(B) Eats both plants and meat

(C) Eats only large animals

(D) Eats only small insects

(E) Eats fish near water

11. An eagle possesses very sharp talons and a powerful, hooked beak. How do these specialized features primarily aid the eagle in its survival?

(A) For building big nests

(B) For drinking clean water

(C) To catch and tear prey

(D) For flying much faster

(E) To find the best seeds

12. You have a rigid glass bottle, a flexible plastic bag, and a stiff wooden spoon. Which of these materials can be easily changed in shape without breaking?

(A) Glass bottle (B) Plastic bag (C) Wooden spoon (D) All three items

(E) None of them

13. When using a flashlight, moving a toy closer to the light source makes its shadow on a wall appear larger. What is the fundamental reason for this increase in shadow size?

(A) Light rays bend (B) Light spreads out (C) Toy physically larger

(D) Wall is closer (E) Light becomes stronger

14. During a specific season, days are noticeably shorter, and temperatures are very low, often leading to snow. What astronomical factor primarily causes these short, cold days?

(A) Earth closer to Sun (B) Sun's heat increases

(C) Earth tilts away from Sun (D) Moon appears much larger

(E) Cloud cover is thicker

15. Milk is a liquid, and liquids fill the space inside their container. Why is using the unit of Liters the best way to accurately measure and buy the right amount of milk?

(A) Measures how long it lasts (B) Measures the milk's weight

(C) Measures how far it travels (D) Measures the container's height

(E) Measures the liquid volume

16. Traditional houses in very hot climates often feature thick walls and small windows. What is the primary purpose of this architectural design?

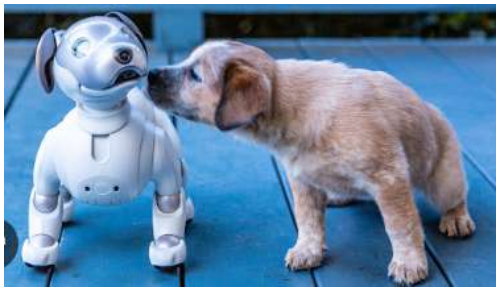
(A) To enhance safety (B) To ensure privacy

(C) To improve appearance (D) To maintain coolness

(E) To maximize space

Exploration: (5 Points)

17. A robotic pet dog is designed to walk, bark, and obey commands, just like a real dog. However, even after years of use, it never grows larger or produces another robotic dog on its own. Considering these observations, which of the following best explains why this robotic pet cannot be considered a living organism?



(A) It is built from wires and plastic

(B) It doesn't undergo life processes like growth

(C) It requires batteries, not food

(D) It cannot show emotions like real pets

(E) It follows programming, not instincts

18. Imagine a very old, rusty iron gate. The rust is a reddish-brown, flaky substance that was not there when the gate was new. You cannot easily turn the rust back into shiny iron. What type of change has occurred to the iron gate?

(A) Physical change (reversible)

(B) State change (melting)

(C) Chemical change (new substance)

(D) Mixing change (with water)

(E) Electrical change (shock)

19. Earth has a protective layer of air around it called the atmosphere. This layer contains gases that living things need to breathe and also helps to keep the planet warm. What would be the most significant impact on life on Earth if this atmosphere suddenly disappeared?

(A) Oxygen would run out instantly

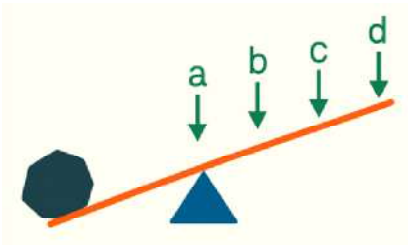
(B) Only plants would survive

(C) All weather patterns would stop

(D) Living organisms wouldn't survive

(E) Earth would spin slower

20. David wants to lift the heavy rock using the lever shown in the figure. Points **a, b, c, d** are marked from near the rock to the far end. This time, Arjun wants to lift the rock AND make the lever move the fastest with the same amount of force.



At which point should Arjun apply the force so that the lever tip moves the fastest and the rock lifts with the least effort?

(A) **Point a**, because it is nearest to the load

(B) **Point b**, because it is halfway

(C) **Point c**, because it gives both speed and balance

(D) **Point d**, because it gives maximum distance from fulcrum

(E) **Point a or b**, both give the same result

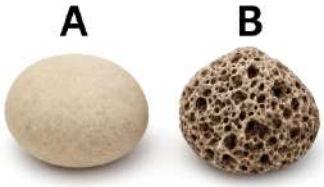
21. While exploring outdoors, you find two rocks of different shapes.

Rock A is **smooth, round, and shiny**, and you picked it up from the riverbank.

Rock B is **sharp, rough, and broken**, and you found it high on a dry mountain trail.

Over many years, each rock was changed by a different natural force.

Which natural process best explains why Rock A became smooth and rounded, while Rock B stayed rough and jagged?



(A) Strong sunlight melting the river rock but not the mountain rock

(B) Fast River water carrying the rock and grinding it against other rocks

(C) Animals in the river polishing the rock with their feet

(D) Mountain air freezing and unfreezing the river rock repeatedly

(E) Roots of river plants shaping the rock into a round form

22. A student is doing an experiment with three small plants. Each plant gets the same sunlight and air, but different amounts of water for 5 days:

A. Plant A gets 200 mL of water every day.

B. Plant B gets 150 mL each day.

C. Plant C gets only 50 mL per day.

After 5 days, how much water has each plant received in total, and which plant is likely to grow the healthiest?

(A) A: 1000 mL, B: 750 mL, C: 250 mL → Plant A grows best

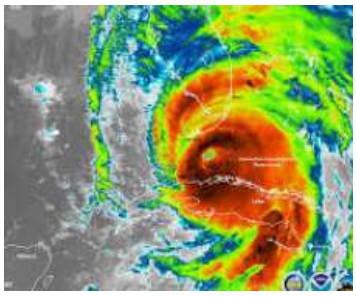
(B) A: 900 mL, B: 700 mL, C: 200 mL → Plant B grows best

(C) A: 1000 mL, B: 750 mL, C: 250 mL → Plant B grows best

(D) A: 900 mL, B: 750 mL, C: 300 mL → Plant A grows best

(E) A: 1000 mL, B: 500 mL, C: 200 mL → Plant C grows best

23. A weather scientist is studying a fast-developing storm and needs to quickly measure how strong the wind is getting. This measurement is important to decide whether the storm might become dangerous and issue warnings in time. Which tool would give the scientist the most accurate wind speed reading?



(A) Hygrometer – detects moisture in the air

(B) Barometer – shows changes in atmospheric pressure

(C) Wind vane – points in the wind's direction

(D) Anemometer – gives speed of the moving air

(E) Thermometer – shows how hot or cold it is

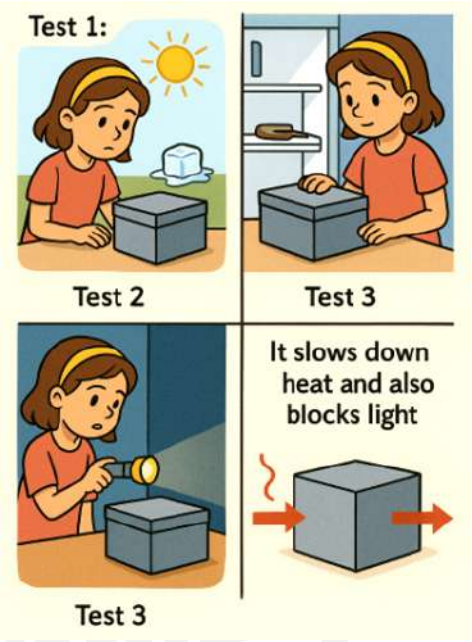
24. Rhea is checking a strange closed box made from a new material.

She tries three tests:

Test 1: She puts an ice cube inside the box and keeps it in the hot sun for 20 minutes. When she opens it, the ice has melted only a little.

Test 2: She keeps a metal spoon inside the same box and puts the box in the fridge. After 20 minutes, the spoon is not as cold as the other things in the fridge.

Test 3: Rhea shines a torch at one side of the box in a dark room. She sees that no light passes through the box.



Rhea says, "This material is doing the same kind of job in all the tests."

What is the best explanation?

(A) It lets heat move fast but stops light

(B) It slows down heat and also blocks light

(C) It allows heat to move quickly and light to pass through

(D) It lets both heat and light pass easily

(E) It changes things to hot or cold by itself

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ANSWER KEY

1. (C)	2. (B)	3. (B)	4. (C)	5. (C)	6. (D)	7. (A)
8. (C)	9. (D)	10. (B)	11. (C)	12. (B)	13. (B)	14. (C)
15. (E)	16. (D)	17. (B)	18. (C)	19. (D)	20. (D)	21. (B)
22. (A)	23. (D)	24. (B)				