



Somalwar Education Society's
**Annasaheb Somalwar Memorial Initiative
of Rewarding Excellence**

A SEARCH OF INNATE TALENT

J0708

Round I – Screening Test

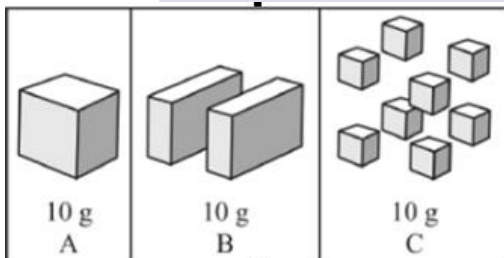
Max Marks : 40

Duration : 30 Min

General Instructions :

- i) All questions are compulsory
- ii) Each question carries 2 Marks
- iii) There is no negative marking
- iv) Please read and follow the instructions on OMR sheets while solving this test

- 1) **Why does an ice cube melt when kept out of the refrigerator?**
(a) because it loses heat and its particles start moving away to melt
(b) because it loses heat and its particles gain energy changing from solid to liquid
(c) because it gains heat and its particles start coming closer
(d) because it gains heat and its particles start moving away
- 2) **A student collects wax from a burning candle. He melts it and then adds a new wick to it and leaves it to cool. Can a new candle be created by this process? Why or why not?**
(a) Yes; as particular property of wax doesn't change
(b) No; as the shape of candle is changed.
(c) No; as particular property of wax changes
(d) Yes; as particular property of wax changes
- 3) **Three 10 g samples of sugar are represented below.**

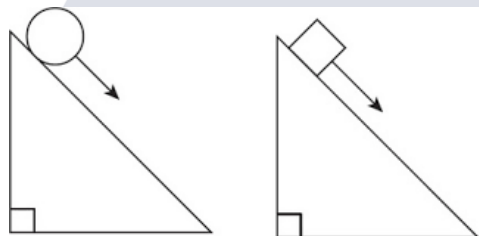


Which of the following samples will dissolve fastest in water ?

- (a) Sample A
- (b) Sample B
- (c) Sample C
- (d) All samples will dissolve equally fast

Space for Rough Work

- 4) **A grain of wheat cannot move, nor prepare its food nor grow without conditions like soil, sunlight, water, minerals, etc. Can a seed be considered a living thing?**
(a) Yes, because it is a product obtained from plants
(b) No, because it cannot survive on its own
(c) Yes, because seeds can respire
(d) No, because a seed is inactive
- 5) **Three empty and closed bottles, each of same size, made up of metal, glass and plastic were pushed down with same force into a bucket filled with water. What will happen when the force is removed?**
(a) Metal bottle will float upwards and the others will stay at the bottom
(b) Plastic bottle will float upwards and the others will stay at the bottom
(c) Glass bottle will float upwards and the others will stay at the bottom
(d) All three kinds of bottles will slowly begin to float upwards
- 6) **Riddhi observed that fishes were coated with salt and kept in trays in the fish market. What is the likely use of coating fish with salt?**
(a) It increases the salt content of the fish that enhances its taste.
(b) It increases the shelf life of fish.
(c) It reduces the weight of the fish making the transport easier.
(d) All of the above
- 7) **The image shows a sphere and cubical block on a ramp. Both the objects slide down the ramp. Which one will slide down first?**



- (a) Block
(b) Sphere
(c) Both will reach the ground simultaneously
(d) Cannot be determined

Space for Rough Work

8) A bag has limes and oranges. A student separates them by the method of handpicking without looking inside the bag directly. Why do you think the student uses the method of handpicking in this case?

- (a) Because both fruits have different size
- (b) Because both fruits have different colour
- (c) Because both fruits have different shape
- (d) Because both the fruits have different weight

9) A teacher makes a paper lantern, out of lightweight paper, in the shape of a large balloon. The base of the lantern has a suspended wick in the center. Two student volunteers hold the lantern vertically, as the teacher lights the wick. Soon, the students feel the lantern is pushing upwards, and eventually it takes flight. Which of the following is the correct reason for the flight?



- (a) The light weight paper heats up and rises upwards.
- (b) The air inside the lantern becomes lighter and rises upwards.
- (c) As lantern is lighter than air, it rises upwards
- (d) Pressure exerted by cold air outside the lantern makes it fly

10) Both cockroaches and birds have wings to fly in the air. However, only cockroaches can climb on the walls. What is the likely reason for this?

- (a) They lack muscles.
- (b) They have hollow bones.
- (c) They have strong and broad wings.
- (d) They have three pairs of legs which provide enough grip.

Space for Rough Work

11) The image shows a person rowing a boat over a river.



Identify bodies experiencing opposition to their movement and because of whom.

- (a) boat because of the river
- (b) boat because of the person
- (c) boat because of the river and the person because of air
- (d) boat because of air and river and the person because of air**

12) Find odd one out :

- (a) Frog
- (b) Virus**
- (c) Rose plant
- (d) Amoeba

13) What makes Roti puff up ?

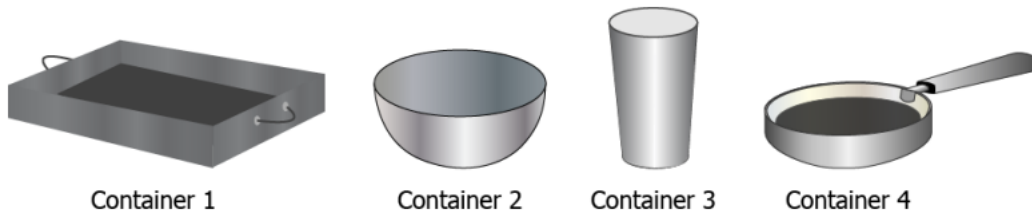
- (a) A particular gas is formed inside**
- (b) Air gets heated up
- (c) It is property of dough
- (d) All of these

14) Choose the correct statement that best distinguishes between astrology and astronomy.

- (a) Astrology is a natural science as it indirectly influences human affairs and the natural world.
- (b) Astronomy is a natural science as it deals with observations and prediction of events in the sky, which is based on the laws of physics.**
- (c) Astrology is a natural science as it deals with observations and prediction of events in the sky, influences human affairs and the natural world.
- (d) Astrology is a natural science as it deals with the study of asteroids and comets, which is based on the laws of natural sciences.

Space for Rough Work

15) A student has four containers of different shapes and sizes but made of steel.



He adds 200 mL water to each container and places them on equal heat. In which container the evaporation of water would be the fastest?

- (a) Container 1 (b) Container 2 (c) Container 3 (d) Container 4

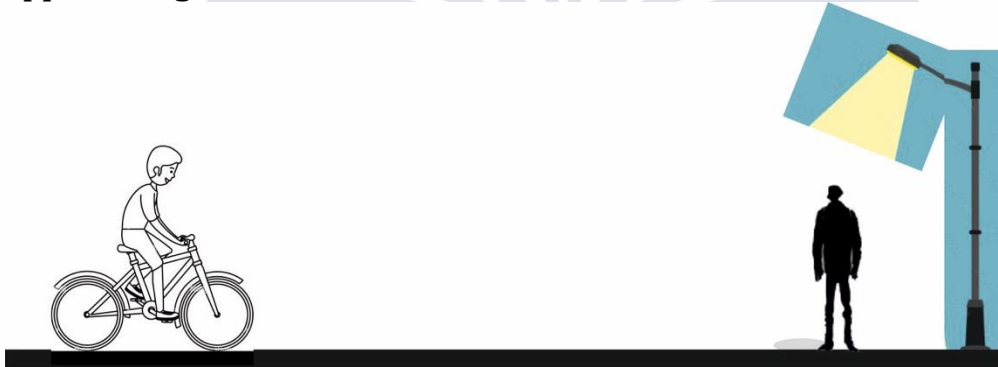
16) Arrange the following steps in the correct order.

- (1) If the car doesn't start the problem must be in the battery
 - (2) Car doesn't start.
 - (3) After changing the battery. Car starts working.
 - (4) The car should start after charging the battery or changing the battery.
 - (5) The car doesn't start because the battery is dead.
 - (6) The car doesn't start even after charging the battery, the battery must have stopped working.
- (a) 1, 2, 3, 4, 5, 6 (b) 2, 1, 3, 4, 5, 6 (c) 2, 1, 5, 4, 6, 3 (d) 2, 1, 5, 6, 3, 4

17) What invention lets you look right through a wall?

- (a) Image processing glasses (b) Geothermal ocular lenses
(c) UV exposure glasses (d) window

18) Sikandar is standing on the side of a road under a light. He sees a cyclist approaching him.



Choose the correct statement from the following.

Space for Rough Work

- (a) The shadow of the cyclist is in front of himself and decreases in length as he approaches Sikander.
- (b) The shadow of the cyclist is in front of himself and increases in length as he approaches Sikander.
- (c) The shadow of the cyclist is behind himself and decreases in length as he approaches Sikander.
- (d) The shadow of the cyclist is behind himself and increases in length as he approaches Sikander.

19) An insect is climbing up a 30 ft. vertical wall. Starting from the bottom it climbs up 3 ft. during the day and slips down 2 ft. at night. In how many days will it reach the top of the wall?

- (a) 31 days
- (b) Never
- (c) 29 days
- (d) 28 days

20) In a lake, there are 10 steps labelled using alphabets from A to J. Starting from step A, every minute a frog jumps to the 4th step from where it started - that is from the step A it would go to the step E and from E it would go to the step I and from I it would go to C and so on. Where would the frog be at the 60th minute if it starts at the step A ?

- (a) Step D
- (b) Step H
- (c) Step A
- (d) Step B

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Feedback Section

21) Please Select the most appropriate option according to you and provide us your valuable feedback about the test paper.

- (a) Interesting but Difficult
- (b) Interesting and Easy
- (c) Easy but Boring
- (d) Difficult and Boring

Space for Rough Work