



International FSP Contests

2024 QUESTION
BOOKLET

FSP
Science
Contest



GRADE **5** & **6**

VIBRANT YOUNGSTERS

Time Allowed : 90 Minutes





Maximum Marks : 90

WRITTEN DIRECTIONS FOR THE CONTEST

- 1) Wait till the invigilator gives the all-clear before beginning the contest.
- 2) Examine your name, father's name, school name, address, and other details one last time on the bubble sheet and answer page.
- 3) Only record your responses on the bubble sheet. Choose the best response from the four alternatives provided, and only one option should be marked per question.
- 4) Fill in the circles on the bubble sheet with blue or black ink; lead pencils are not permitted.
- 5) It is completely forbidden to use any kind of assistance, including cell phones and technological devices.
- 6) Three points are awarded for each right response. Negative marking would occur. A single point would be subtracted for each wrong response.
- 7) No justification may be given for an unaccompanied candidate to leave the examination room, including to use the restroom.
- 8) No objects, including electrical devices, are allowed within the room.
- 9) The competition is divided into the following five categories:
 - A) Vibrant youngsters Grade 1 & 2
 - B) Vibrant youngsters Grade 3 & 4
 - C) Vibrant youngsters Grade 5 & 6
 - D) Vibrant youngsters Grade 7 & 8
 - E) Vibrant youngsters Grade 9 & 10 / 0-levels
- 10) The contest is only open to enrolled students.
- 11) No candidate may remove any provided materials, including answer books, from the hall, even if they are partially filled in or utilized.
- 12) Neither the examiner nor the invigilator may respond if a participant does not understand a word or phrase on the exam paper.
- 13) Please visit www.fspcompetitions.org to learn about future competitions or to offer insightful comments.
- 14) Vibrant youngsters FSP must receive reports of any academic misconduct or malpractice at info@fspcompetitions.org.

Q-1





What are the properties of matter?

-  **A** No mass but occupies space.
-  **B** Mass but occupies no space.
-  **C** Mass and occupies space.
-  **D** No mass and occupies no space.

Q-2

Shakeel took out a bottle of orange juice from a freezer. After a while, he noticed some water droplets on the outside of the bottle. Where did the water droplets come from?







-  **A** From the cool air in the freezer
-  **B** From the moisture in the surrounding air
-  **C** From the orange juice
-  **D** From Shakeel's hands

Q-3

Asma took two balloons. She blew air with her mouth in one balloon and she filled another balloon with the vapours of boiling water. She released the two balloons and observed that the balloon with the hot vapours rose

higher than the other balloon. What did she learn from this experiment?

-  **A** Hot air is heavier than the cold air.
-  **B** Water vapour give energy to the balloon.
-  **C** Air likes hot balloons.
-  **D** Hot air is lighter and therefore rises higher.

Q-4

A football kicked by a boy rolls on the ground to some distance and stops. The force which stops the ball is





-  **A** muscular force.
-  **B** gravitational force.
-  **C** mechanical force.
-  **D** frictional force.

Q-5

The figure given below shows a ball remaining stationary on the floor.

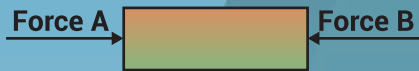


What force enables the ball to remain in that position?

-  **A** Pushing
-  **B** Frictional
-  **C** Magnetic
-  **D** Pulling

Q-6

The box below does NOT move because



- A** both forces A and B are acting in opposite directions.
- B** both forces A and B are acting in same direction.
- C** there is no frictional force between the box and the ground
- D** None of these.

Q-7

Ultraviolet rays of sun are absorbed by this layer of atmosphere:

- A** Thermosphere
- B** Troposphere
- C** Ionosphere
- D** Ozone

Read the passage and answer the questions 8 to 11

Though our body provides antibodies to fight against infections, we should also try to keep ourselves away from diseases. The most important thing for that is to stay clean. We should keep our body as well as our surroundings clean. We should never let the water collect at any open place as it provides the mosquitoes a place to breed. Mosquitoes spread the disease called malaria. We should never keep the eatables without covering them. The flies coming from dirty places sit on

the uncovered food and spread infections. By eating the contaminated food we can fall ill.

Q-8

What does our body provide to fight against diseases?



Blood



Antibodies



Antigens



Knife

Q-9

What harm do flies do to the uncovered food?



They eat the food with them.



They take the food along



They contaminate the food.



None of these

Q-10

We can stay away from diseases by _____.



applying beauty products daily



going to the doctor



keeping our selves clean



doing nothing

Q-11

Why should we not let the water to collect at any place?



It gives place to the mosquitoes to breed, which spread diseases.



It makes the place look ugly.



Both.



None of these.

Q-12

Match the following;

Column A		Column B	
(I)	Plankton	[A]	Air
(II)	carbon dioxide	[B]	Soil
(III)	Deafness	[C]	Water
(IV)	Pesticides	[D]	Noise



(I-B), (II-A), (III-D), (IV-C)



(I-D), (II-C), (III-A), (IV-B)



(I-C), (II-A), (III-D), (IV-B)



(I-C), (II-D), (III-B), (IV-A)

Q-13

Mercury, Venus, Earth and Mars are the planets that are nearer to the Sun. What are these planets called?



outer planets



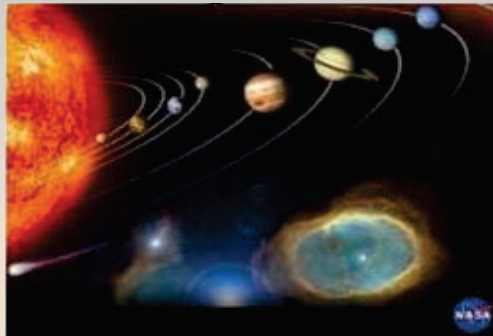
inner planets



water planets



earthen plants



Q-14

Choose the correct option from the following on the basis of the packing of molecules.



Solid > Liquid > Gas



Gas > Solid > Liquid



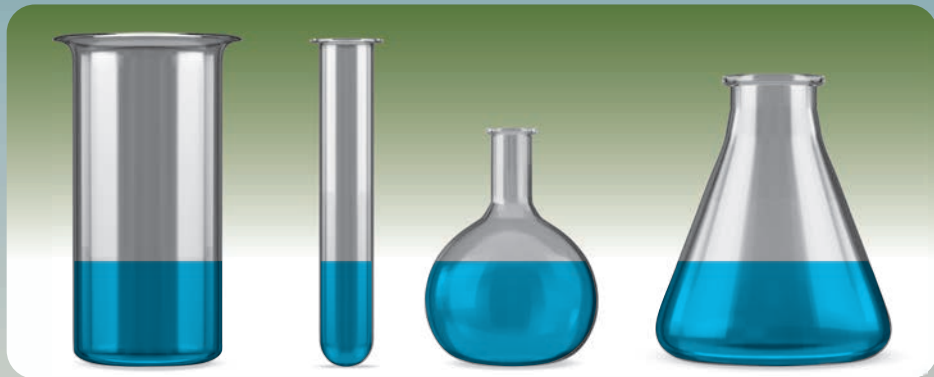
Liquid > Gas > Solid



Solid > Gas > Liquid

Q-15

Jamil poured equal amounts of water into four containers as shown in the figure and kept all of them out in the hot sun for an entire day. At the end of the day, he measured the amount of water left in each container. What was Jamil testing for?



Whether evaporation depends on the volume of water taken



Whether evaporation depends on temperature



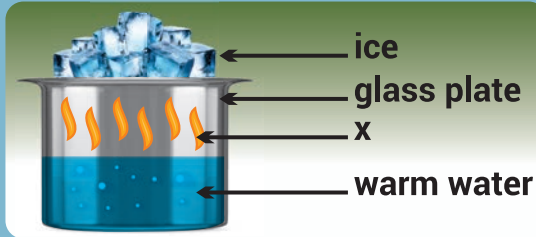
Whether evaporation depends on the material of the container



Whether evaporation depends on the exposed area of water

Q-16

The figure below shows an activity which was carried out in a laboratory.



Which of the following phenomena was exhibited by 'X'?



Freezing of water.



Condensation of water vapour.



Evaporation of water.



Expansion of water.

Q-17

A student took two dishes P and Q and poured equal amounts of water in them. He placed Dish P in the sunlight and Dish Q in a closed room.



Dish P



Dish Q

What is the rate of evaporation in dish P and dish Q?



Faster in dish P



Slower in dish P



Faster in dish Q



Same in both the dishes

Read the data given below and answer questions 18 and 19.

Jasmine conducted an experiment. She took two bowls of sand and water and placed them in sunlight. After an hour she noted the temperatures. Then she took both into her house and placed them where there was no light. She noted the temperatures again after one hour and made the following observations.

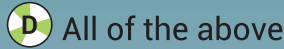
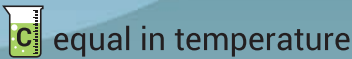
	Sand	Water
Before placing them in sunlight	30°C	30°C
After placing them in sunlight for an hour	36°C	33°C
After placing inside the house for one hour	31°C	31°C

Q-18

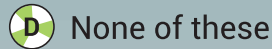
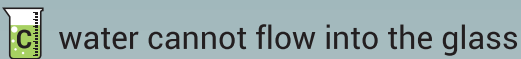
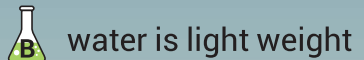
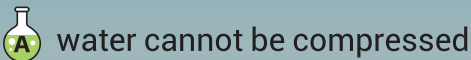
What is the increase in the temperature of the sand after being placed for an hour in the sunlight?

**Q-19**

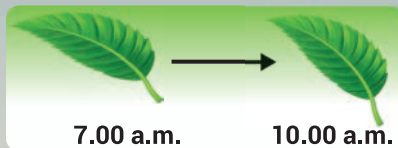
After being placed in sunlight for an hour, the air present above the sand bowl is ___ than the air above the water bowl.

**Q-20**

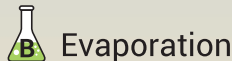
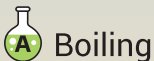
A glass is inverted over a basin of water and slowly inserted into the water. However the water does not enter the glass. This experiment proves that _____.

**Q-21**

The figure given below gives the following observation.



What process causes the dew present on the leaf to disappear by 10.00 a.m.?



Q-22

After taking a bath, you feel cold on coming out of the bathroom. Why does this happen?



The surrounding air takes up heat from the towel and the skin.



Water vapor in the air condenses on the body and cools.



Water on the skin evaporates and cools off the skin.



Water on the skin evaporated then condenses to cool off the skin.

Q-23

Match the following:

List - I		List - II	
A.	Rupee	1	USA
B.	Dollar	2	Bangladesh
C.	Pound	3	India
D.	Taka	4	UK



A-2, B-3, C-1, D-4



A-3, B-1, C-4, D-2



A-1, B-2, C-4, D-3



A-3, B-1, C-2, D-4

Q-24

A fine wire that becomes hot and produces light when an electric current passes through it is called a _____



A Filament



B Nichrome wire



C Circuit



D Wire

Q-25

A circuit must have which of the following?



A Energy source, battery, something to work



B Energy source, wire, circuit tester



C Energy source, wire, switch



D Energy source, wire, something to work

Q-26

The following table contains some substances placed under the headings: solids, liquids and gases.

Solids	Liquids	Gases
Sugar	Water	Steam
Salt	Petrol	Oxygen
Iron	Milk	Kerosene

Which of the following is placed in the wrong group?



Salt



Petrol



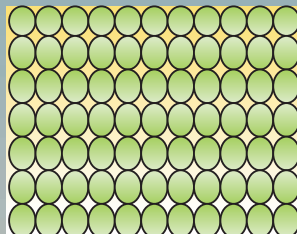
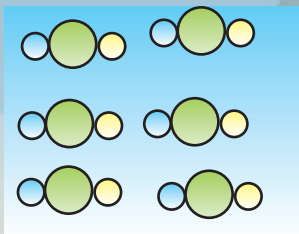
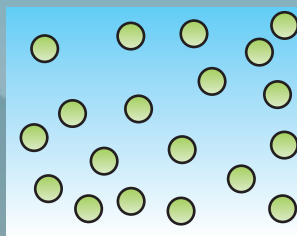
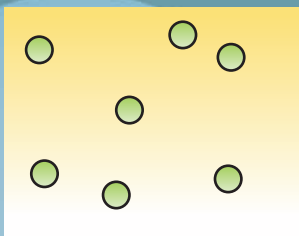
Oxygen



Kerosene

Q-27

Which of the following figures shows the arrangement of molecules for solids?



Q-28

The measure of how loud or soft a sound is ... (quantified in units called decibels)



Echo



Wavelength



Pitch



Amplitude

Q-29

A student took water and dissolved some salt in it. Later she placed the salty water under sunlight for three days. She found only crystals of salt but no water. The process demonstrated in the above experiment is



filtration.



boiling.



condensation.



evaporation.

Q-30

A student fills a container with ice cubes and leaves it at room temperature for several hours. Later, he observes that the ice has disappeared, but the container now holds a small amount of liquid. The process demonstrated in this experiment is:



Melting



Boiling



Condensation



Sublimation

ANSWER SHEET

GRADE 5 & 6

Q.NO ANSWER

- 1 (A) (B) (C) ●
2 (A) ● (C) (D)
3 (A) (B) (C) ●
4 (A) (B) (C) ●
5 (A) ● (C) (D)
6 ● (B) (C) (D)
7 (A) (B) (C) ●
8 (A) ● (C) (D)
9 (A) (B) ● (D)
10 (A) (B) ● (D)
11 ● (B) (C) (D)
12 (A) (B) ● (D)
13 (A) ● (C) (D)
14 ● (B) (C) (D)
15 (A) (B) (C) ●

Q.NO ANSWER

- 16 (A) ● (C) (D)
17 ● (B) (C) (D)
18 (A) (B) ● (D)
19 ● (B) (C) (D)
20 (A) (B) (C) ●
21 (A) ● (C) (D)
22 (A) (B) ● (D)
23 (A) ● (C) (D)
24 ● (B) (C) (D)
25 (A) (B) (C) ●
26 (A) (B) (C) ●
27 (A) (B) (C) ●
28 (A) (B) (C) ●
29 (A) (B) (C) ●
30 ● (B) (C) (D)



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