



# FAMOUS STUDENTS PLATFORM



**QUESTION BOOKLET**

**GRADE 3 & 4**

**TIME ALLOWED : 75 MINS**

**MAXIMUM MARKS : 75**

**2023**

**FSP SCIENCE  
CONTEST**



# FSP

**VIBRANT YOUNGSTERS COMPETITIONS**

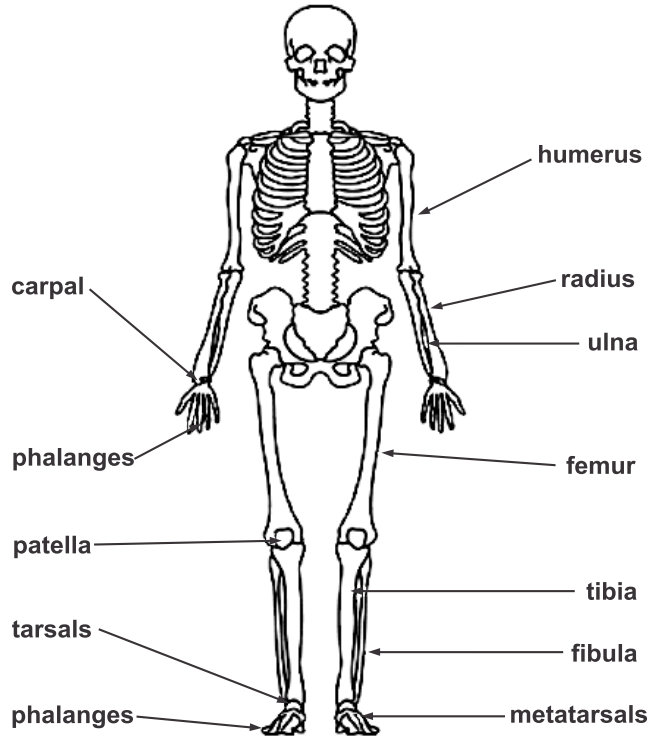


## INSTRUCTIONS

- 1) Don't start attempting the paper until instructed by the invigilator.
- 2) instructions from the examination invigilator must be carried out promptly.
- 3) Carefully recheck your name, father name, school name, address etc at the bubble sheet / answer sheet.
- 4) Record all answers on the bubble sheet only. select best answer from the four given options and mark only one option in each question.
- 5) Use blue / black ink to fill up the circles for your answers on the bubble sheet use of lead pencil is not allowed.
- 6) Use of any helping material including cell phones and electronic devices is strictly prohibited.
- 7) Every correct answer earns three points. there would be negative marking. one point would be deducted for every incorrect answer.
- 8) Candidates may not leave the examination room unescorted for any reason, and this includes using the washroom.
- 9) No materials or electronic devices shall be brought in to the room.
- 10) There are five categories of the contest as under:
  - 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)
- 11) Only registered students can participate in the contest.
- 12) No candidate shall take out of the hall any answer book(s) or part of an answer book, whether used or unused, or other supplied material.
- 13) If a participant does not understand a word or phrase on the exam paper, neither examiner nor invigilator is permitted to answer.
- 14) for information about upcoming contests or providing valuable feedback,  
please visit [www.fspcompetitions.org](http://www.fspcompetitions.org)
- 15) Any academic misconduct or malpractice must be reported to fsp vibrant youngsters at [info@fspcompetitions.org](mailto:info@fspcompetitions.org)

**QUESTION 1 :**

The diagram shows some parts of the human skeleton.

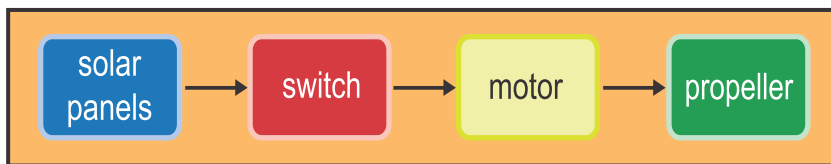


If you break the tibia bone, you have a

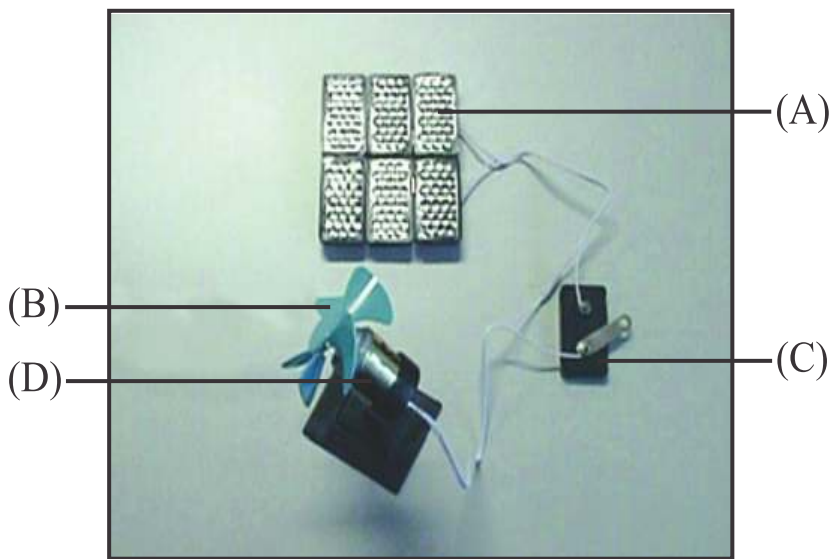
- (A) broken arm
- (B) broken foot
- (C) broken hand
- (D) broken leg

**QUESTION 2 :**

Tayyaba drew a chart showing how the parts of her solar-powered project were joined.



The photo shows the parts of her project.

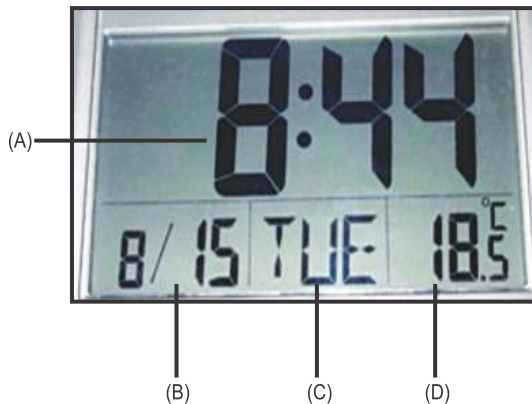


Which part is the switch?

- (A) A
- (B) B
- (C) C
- (D) D

**QUESTION 3 :**

Which part of the clock shown below displays the temperature?



- (A) A
- (B) B
- (C) C
- (D) D

**QUESTION 4 :**

Saira looked at some floor coverings in her ho use.

Floor covering	Hard	Soft	Rough	Smooth
tiles	✓			✓
grass matting		✓	✓	
wooden boards	✓		✓	
carpet		✓		✓

Hard, smooth surfaces are slippery when wet.

Which floor covering in Saira's house is slippery when wet ?

- (A) tiles
- (B) grass matting
- (C) wooden boards
- (D) carpet

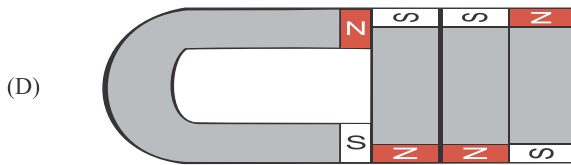
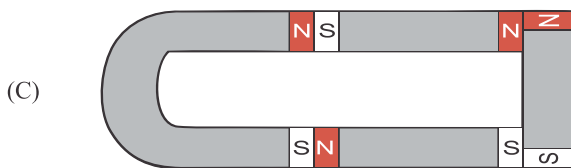
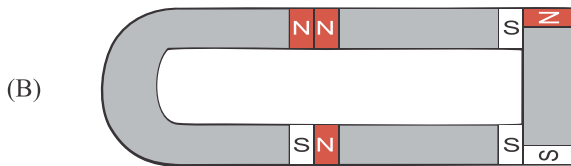
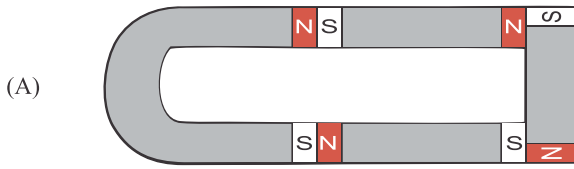
**QUESTION 5 :**

Magnets have a north pole (N) and a south pole (S).

The north pole of a magnet will stick to the south pole of another magnet. The north pole of a magnet will push away the north pole of another magnet.

Amna planned to place four magnets together in groups as shown in the drawings.

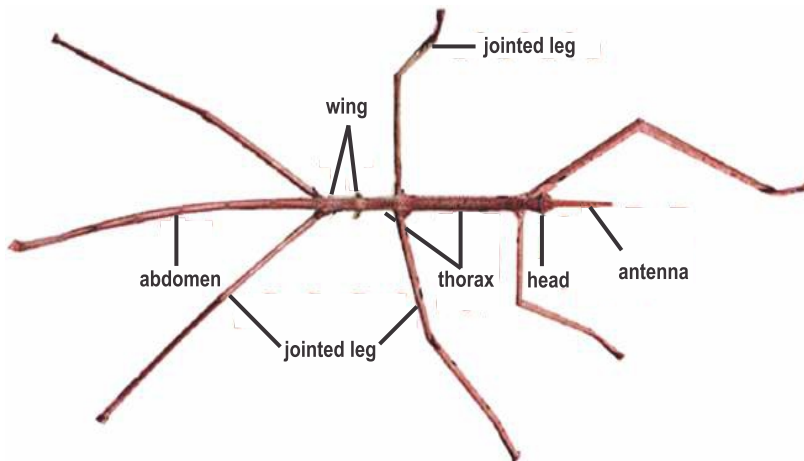
In which group would all the magnets stick together?



- (A) A
- (B) B
- (C) C
- (D) D

**QUESTION 6 :**

The photograph shows a stick insect at its actual size.

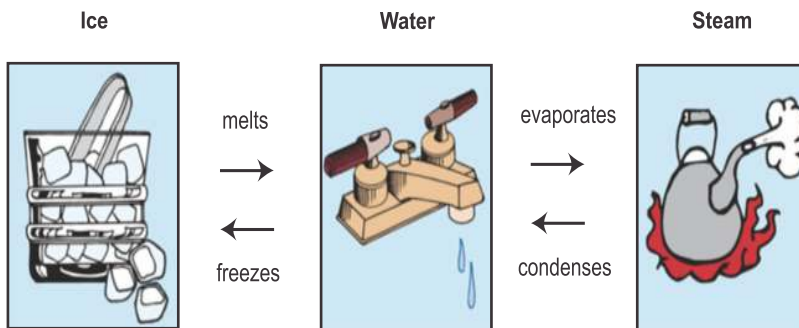


Using the ruler, what is the approximate length of the insect from the tip of its antenna to the end of its abdomen?

- (A) 9 cm
- (B) 10 cm
- (C) 11 cm
- (D) 14 cm

**QUESTION 7 :**

The diagram below shows the different states in which water exists.



How does steam change into water?





- (A) It melts
- (B) It freezes
- (C) It condenses
- (D) It evaporates.

**QUESTION 8 :**

A fire truck has a sign that appears as "FIRE" in the rear vision mirror of a car that is in front of the fire truck.



Which option shows the sign on the front of the fire truck?

- |     |   |     |  |
|-----|---|-----|--|
| (A) |    | (B) |    |
| (C) |  | (D) |  |
- (A) A  
 (B) B  
 (C) C  
 (D) D



**QUESTION 9 :**

Salim recorded information about some containers.

Containers	What is kept in the container?	What is the container made from?
bottle	soft drink	plastic
jar	coffee	glass
carton	milk	cardboard
can	soup	metal
bottle	sauce	glass
tub	butter	plastic

What two things are kept in glass containers?

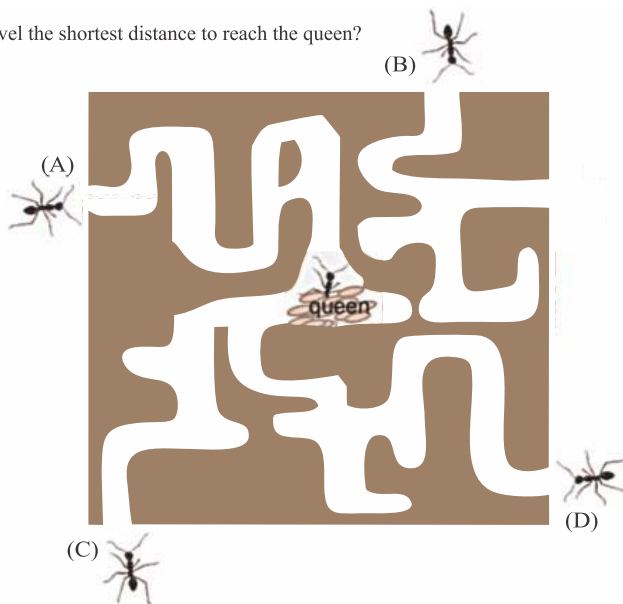
- (A) coffee and sauce
- (B) coffee and milk
- (C) soup and sauce
- (D) soup and milk

**QUESTION 10 :**

The drawing shows the tunnels in an ant nest.

Four ants are trying to get to the queen ant and her eggs.

Which ant has to travel the shortest distance to reach the queen?



- (A) A
- (B) B
- (C) C
- (D) D

**QUESTION 11 :**

Jamila sorted some rocks into two different groups.



Jamila sorted the rocks by their

- (A) colour
- (B) texture
- (C) shape
- (D) size

**READ THE INFORMATION BELOW. QUESTION 12 & 13.**

The table shows the highest temperature and how much rain fell each month.

Month	September (S)	October (O)	November (N)	December (D)	January (J)
Highest temperature (°C)	25	30	28	35	38
Rainfall (millimetres)	108	110	80	43	30

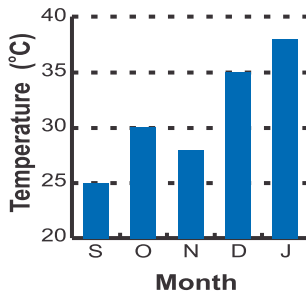
**QUESTION 12 :**

Which month had the most rainfall?

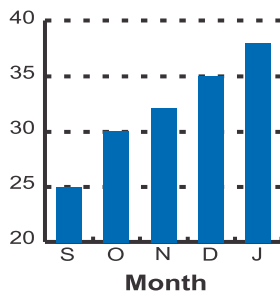
- (A) September
- (B) October
- (C) December
- (D) January

**QUESTION 13 :**

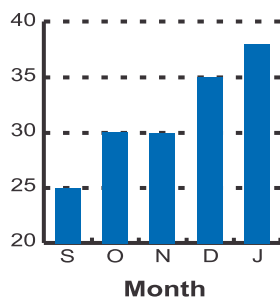
Which graph correctly shows the highest temperatures for each month?



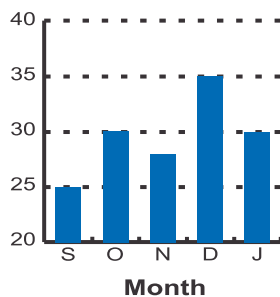
(A)



(B)



(C)



(D)

- (A) A
- (B) B
- (C) C
- (D) D

**QUESTION 14 :**

You can see through a fat stain on brown paper. The table gives information about the stains left on brown paper by some foods.

Food	Can you see through the food stain on the brown paper?
boiled potato	no
cashew nuts	yes
full cream milk	yes
maple syrup	no

Which foods contain fat?

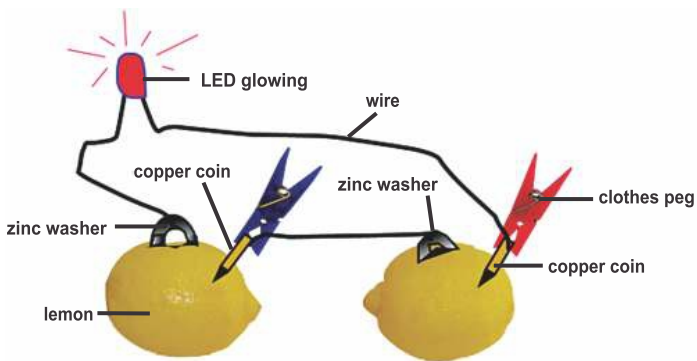
- (A) boiled potato and cashew nuts  
 (B) cashew nuts and full cream milk  
 (C) full cream milk and maple syrup  
 (D) boiled potato and maple syrup

**QUESTION 15 :**

Batteries store electrical energy.

A wet-cell battery makes electricity in a chemical reaction. Two electrodes made of different metals are placed in a container of acid. If the electrodes are joined by wire, electricity flows through the wire.

Ingrid thought she could make a wet-cell battery from lemons. The drawing shows what she expected to happen.



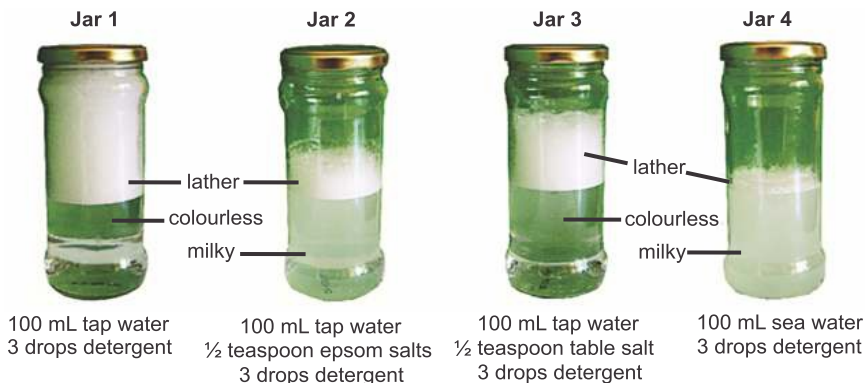
What effect was Ingrid looking for in her observations that would support her prediction?

- (A) the wires becoming hot  
 (B) the copper coin and the zinc washer being joined  
 (C) lemon juice bubbling out of the slits in their skins  
 (D) the LED glowing

**QUESTION 16 :**

Daniyal had four jars each containing different salts dissolved in water. He wanted to compare the lather produced when detergent was added.

The photographs show the amount of lather produced after Daniyal shook each jar 15 times.

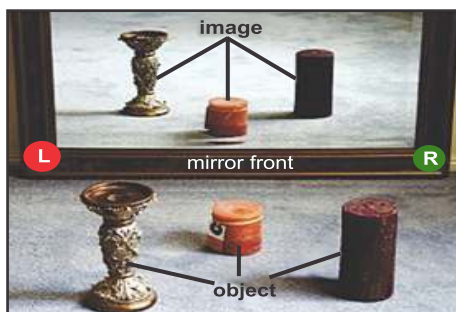


Epsom salts contain magnesium. What evidence from Daniyal's results suggests that there might be magnesium in sea water?

- (A) a large amount of lather produced, water remains colourless
- (B) a large amount of lather produced, water changes to a milky colour
- (C) a small amount of lather produced, water changes to a milky colour
- (D) a small amount of lather produced, water remains colourless

**QUESTION 17 :**

Sobia took this photograph of some objects and their images in a mirror.



What is true about the images?

- (A) Larger objects have smaller images
- (B) The images have different shapes to the objects
- (C) The images show the same side of the objects as seen directly by Sobia
- (D) Objects closer to the mirror have images that appear closer to the mir

Read the information below. Question 18 & 19.

Basit had these hollow plastic cars.

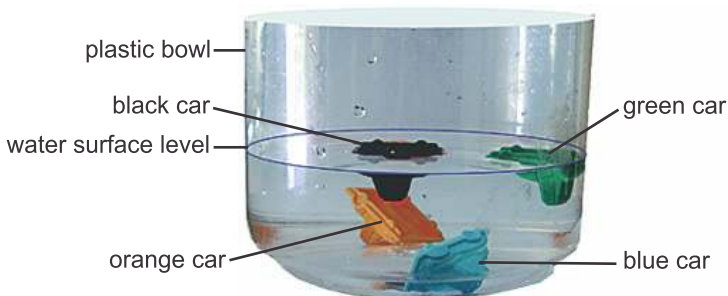


**black car    green car    blue car    orange car**

Basit floated the cars upside down on water. Basit put drops of water into each car until it sank. The table shows the number of water drops required to sink each of the cars.

Car	Black	Green	Blue	Orange
Number of water drops placed into the car	64	58	56	38

The photograph shows Basit's project at a certain time.



### QUESTION 18 :

How many drops of water had been placed into the green car at this time?

- (A) 37
- (B) 47
- (C) 57
- (D) 67

### QUESTION 19 :

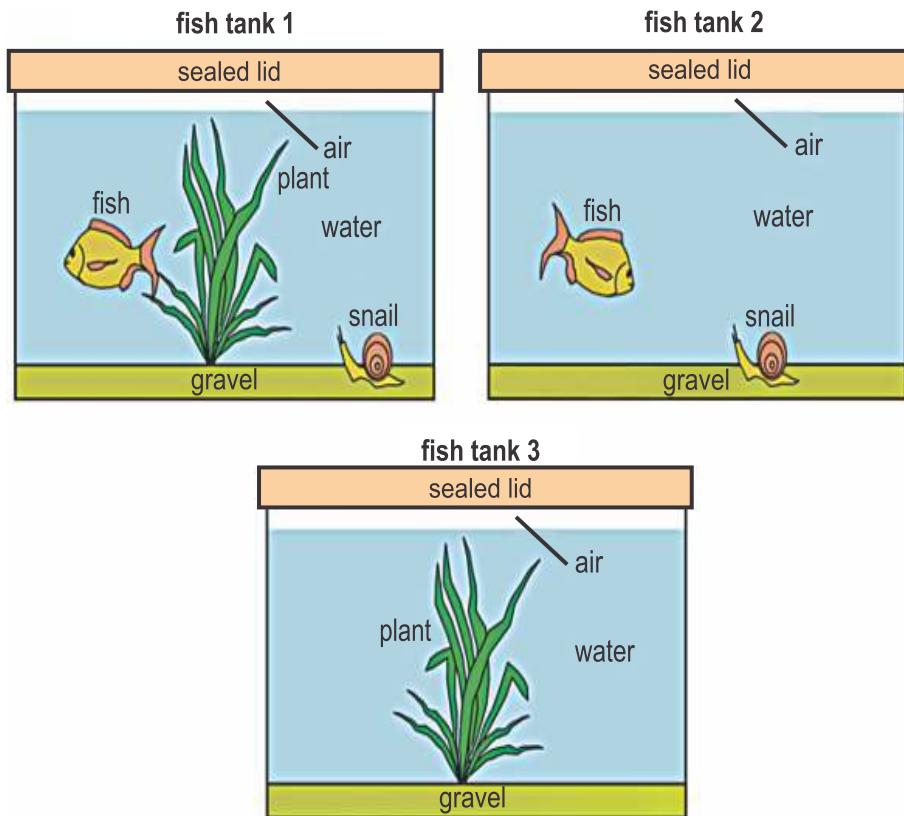
Basit had predicted that the same amount of water would be needed to sink each of the cars.

Which option would **not** explain why Basit's results were different from his calculation?

- (A) The sizes of the water drops changed
- (B) The volumes of the spaces inside the cars were different
- (C) Basit sometimes forgot which car he had placed a drop of water into
- (D) The temperatures of the water in the bowl and the eyedropper were different

READ THE INFORMATION BELOW. QUESTION 20 & 21.

Mehak set up fish tanks as shown and observed what happened inside them over time.



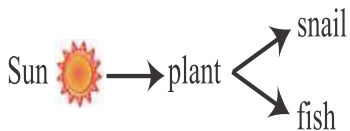
**QUESTION 20 :**

Which question was Mehak most likely investigating?

- (A) What type of plants do fish and snails eat?
- (B) Are the gases from the air taken up by the water in a fish tank?
- (C) Do water plants and animals kept in a sealed fish tank help each other to live?
- (D) Do animals breathe the air at the top of the sealed fish tank in which they live?

**QUESTION 21 :**

Mehak thought that energy passed from the Sun to the fish tank 1 environment as shown below.



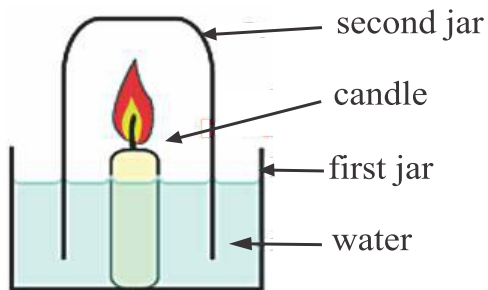
If Mehak is correct, which environment's energy flow would be least affected by being placed into a dark room for a week?

- (A) fish tank 1
- (B) fish tank 2
- (C) fish tank 3
- (D) fish tanks 2 and 3 equally



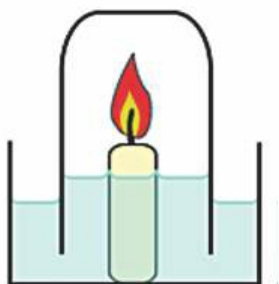
**QUESTION 22 :**

Salim placed a candle in a jar of water. He then lit the candle and held a second jar over the top.

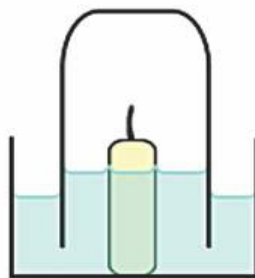


A short time later, the candle went out and water rose into the second jar.

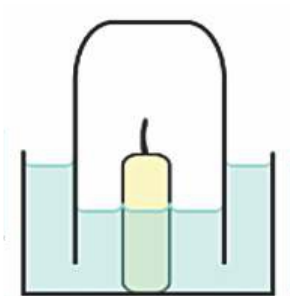
Which diagram shows what happened?



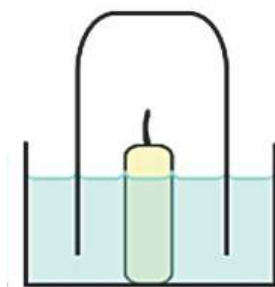
(A)



(B)



(C)



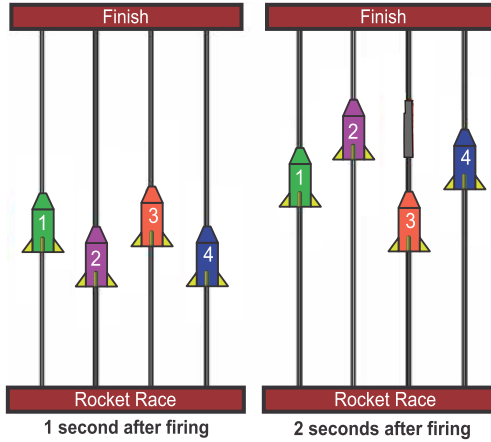
(D)

- (A) A
- (B) B
- (C) C
- (D) D

**QUESTION 23 :**

Maham played a game called Rocket Race. When Maham pushed a button, all of the rockets fired at the same time. The rockets then moved upwards on a metal rod until they reached the finish line.

The drawings show the positions of each rocket at one second, and at two seconds, after being fired.

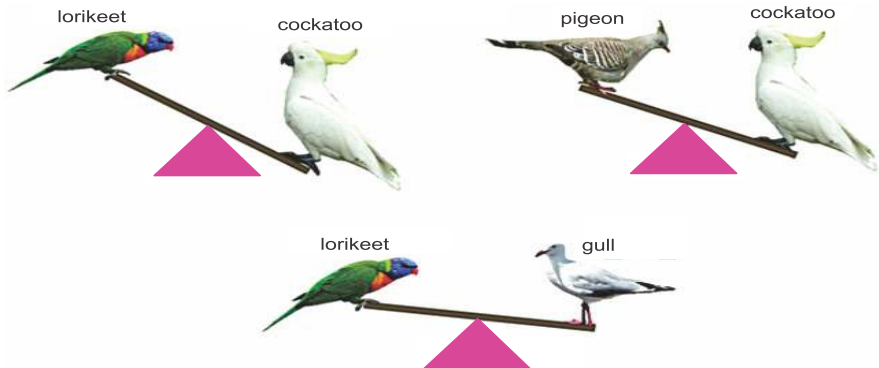


Which rocket was still speeding up after 2 seconds?

- (A) rocket 1
- (B) rocket 2
- (C) rocket 3
- (D) rocket 4

**QUESTION 24 :**

The body mass of some birds can be compared using a balance.

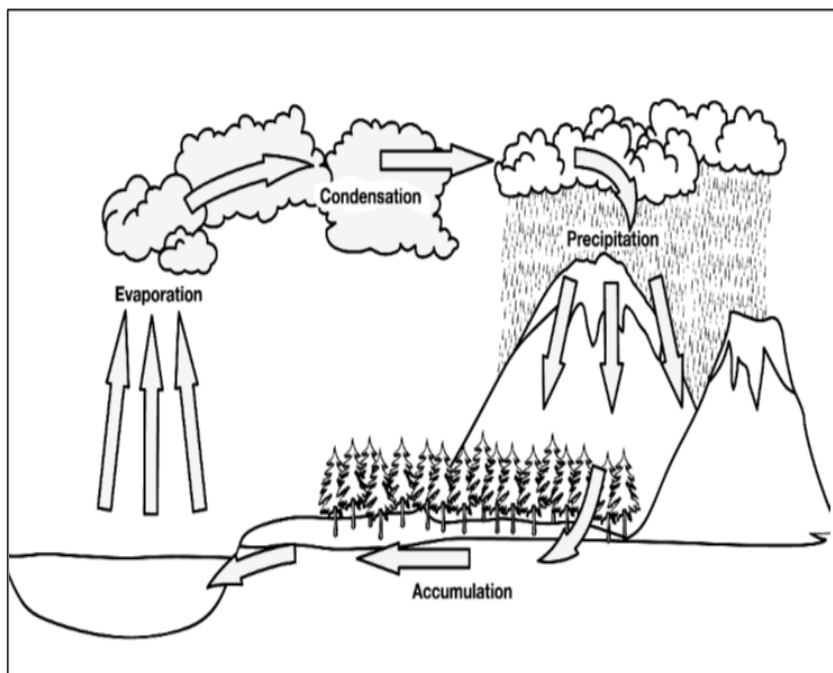


One other comparison must be made before the birds can be listed in order of their masses. Which one is it?

- (A) cockatoo and lorikeet
- (B) cockatoo and gull
- (C) pigeon and gull
- (D) pigeon and lorikeet

Read **Process of Atmosphere** and answer Question No. 25.

### Process of Atmosphere



1. What Picture Shows

- A. Water Cycle
- B. Evaporation
- C. Condensation
- D. Precipitation



# ANSWER SHEET

## GRADE 3&4



Q.NO ANSWER

- |    |                                    |                                    |                                    |                                    |
|----|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| 1  | <input type="radio"/> A            | <input type="radio"/> B            | <input type="radio"/> C            | <input type="radio"/> D            |
| 2  | <input type="radio"/> A            | <input type="radio"/> B            | <input checked="" type="radio"/> C | <input type="radio"/> D            |
| 3  | <input type="radio"/> A            | <input type="radio"/> B            | <input type="radio"/> C            | <input checked="" type="radio"/> D |
| 4  | <input checked="" type="radio"/> A | <input type="radio"/> B            | <input type="radio"/> C            | <input type="radio"/> D            |
| 5  | <input checked="" type="radio"/> A | <input type="radio"/> B            | <input type="radio"/> C            | <input type="radio"/> D            |
| 6  | <input type="radio"/> A            | <input type="radio"/> B            | <input checked="" type="radio"/> C | <input type="radio"/> D            |
| 7  | <input type="radio"/> A            | <input type="radio"/> B            | <input checked="" type="radio"/> C | <input type="radio"/> D            |
| 8  | <input type="radio"/> A            | <input type="radio"/> B            | <input type="radio"/> C            | <input checked="" type="radio"/> D |
| 9  | <input checked="" type="radio"/> A | <input type="radio"/> B            | <input type="radio"/> C            | <input type="radio"/> D            |
| 10 | <input checked="" type="radio"/> A | <input type="radio"/> B            | <input type="radio"/> C            | <input type="radio"/> D            |
| 11 | <input type="radio"/> A            | <input type="radio"/> B            | <input checked="" type="radio"/> C | <input type="radio"/> D            |
| 12 | <input type="radio"/> A            | <input checked="" type="radio"/> B | <input type="radio"/> C            | <input type="radio"/> D            |
| 13 | <input checked="" type="radio"/> A | <input type="radio"/> B            | <input type="radio"/> C            | <input type="radio"/> D            |
| 14 | <input type="radio"/> A            | <input checked="" type="radio"/> B | <input type="radio"/> C            | <input type="radio"/> D            |
| 15 | <input type="radio"/> A            | <input type="radio"/> B            | <input type="radio"/> C            | <input checked="" type="radio"/> D |

Q.NO

ANSWER

- |    |                                    |                                    |                                    |                                    |
|----|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| 16 | <input type="radio"/> A            | <input type="radio"/> B            | <input checked="" type="radio"/> C | <input type="radio"/> D            |
| 17 | <input type="radio"/> A            | <input type="radio"/> B            | <input type="radio"/> C            | <input checked="" type="radio"/> D |
| 18 | <input type="radio"/> A            | <input type="radio"/> B            | <input checked="" type="radio"/> C | <input type="radio"/> D            |
| 19 | <input type="radio"/> A            | <input type="radio"/> B            | <input type="radio"/> C            | <input checked="" type="radio"/> D |
| 20 | <input type="radio"/> A            | <input type="radio"/> B            | <input checked="" type="radio"/> C | <input type="radio"/> D            |
| 21 | <input type="radio"/> A            | <input checked="" type="radio"/> B | <input type="radio"/> C            | <input type="radio"/> D            |
| 22 | <input type="radio"/> A            | <input checked="" type="radio"/> B | <input type="radio"/> C            | <input type="radio"/> D            |
| 23 | <input type="radio"/> A            | <input checked="" type="radio"/> B | <input type="radio"/> C            | <input type="radio"/> D            |
| 24 | <input type="radio"/> A            | <input type="radio"/> B            | <input checked="" type="radio"/> C | <input type="radio"/> D            |
| 25 | <input checked="" type="radio"/> A | <input type="radio"/> B            | <input type="radio"/> C            | <input type="radio"/> D            |



# FSP



VIBRANT YOUNGSTERS COMPETITIONS





FAMOUS STUDENTS PLATFORM

[www.fspcompetitions.org](http://www.fspcompetitions.org)

[info@fspcompetitions.org](mailto:info@fspcompetitions.org)

