Rulang Primary School

MINI-TEST 2
SCIENCE
2024

Name: _____ ( ) **Total Time:** **45 minutes**

Level: **Primary 4** **Date:** **21 Aug 2024**

Class: **Primary 4 ( )** **Total Marks:** /30

Instructions to pupils:

1. **Do not open this booklet until you are told to do so.**
2. You are required to answer **all** the questions in this booklet.
3. This question booklet consists of **14** printed pages, including the cover page.

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Section A (8 x 2 marks)

For each of the questions from 1 to 8, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

1. Which of the following properties is true for both air and a marble?

   (1) They take up space.

   (2) They can be compressed.

   (3) They have a definite shape.

   (4) They have a definite volume.

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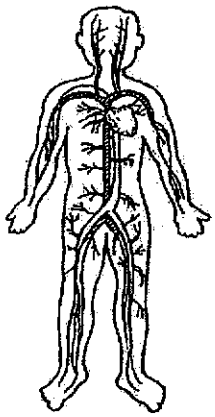
2. The following statements describe the function of a human system:

A: The system helps to remove waste materials away from different parts of the body.

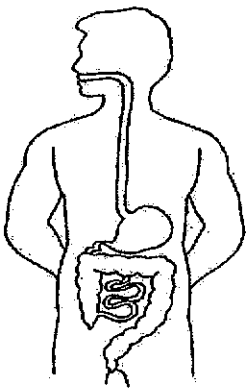
B: The system helps to carry digested food and oxygen to different parts of the body.

Which of the following systems do the above descriptions refer to?

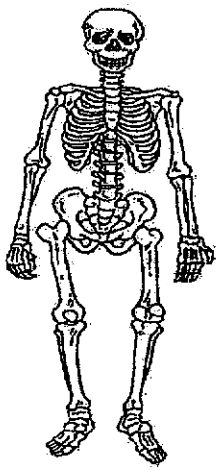
(1)



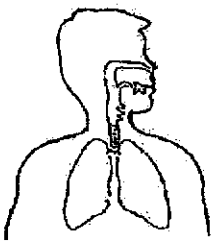
(2)



(3)

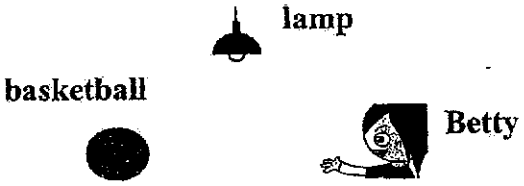


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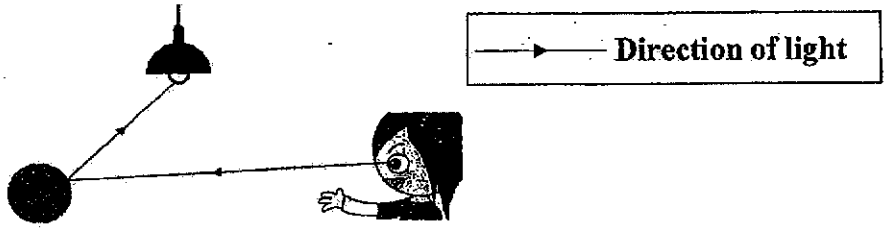
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3. Study the diagram below.

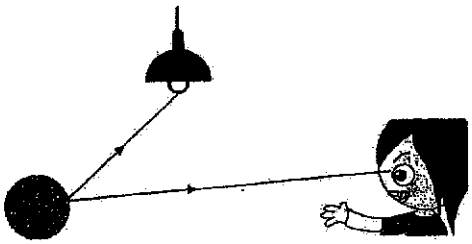


Which of the following explains why Betty can see the basketball?

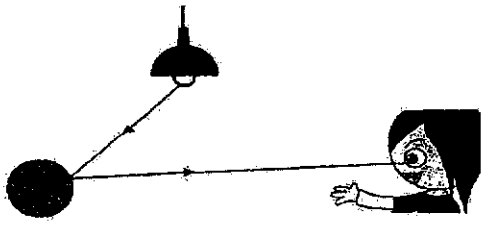
(1)



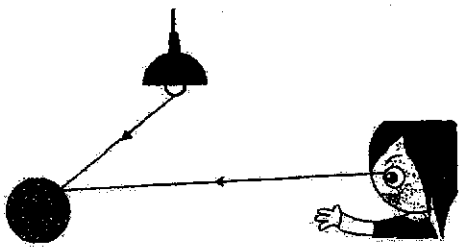
(2)



(3)



(4)



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4. The table below shows the characteristics of X, Y and Z.

Characteristics	X	Y	Z
Can it make its own food?	No	Yes	No
Can it grow?	No	Yes	Yes
Can it respond to changes?	No	Yes	Yes

Which is/are most likely to be living thing(s)?

(1) Y only
(2) X and Y only
(3) X and Z only
(4) Y and Z only

5. Tommy recorded some observations about two animals, P and Q, in the table below. A tick (✓) indicates that the animal has the characteristic.

Characteristics	Animal P	Animal Q
Has wings	✓	
Has hair	✓	
Has moist skin		✓

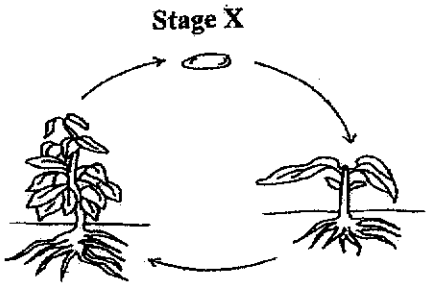
Based on his observations above, which of the following could animals P and Q be?

	Animal P	Animal Q
(1)	Bird	Amphibian
(2)	Mammal	Reptile
(3)	Amphibian	Bird
(4)	Mammal	Amphibian

4

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6. The diagram shows the life cycle of a plant.



What is stage X?

(1) egg

(2) seed

(3) adult plant

(4) young plant

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7. The table below shows the comparison between the life cycles of a mealworm beetle and a grasshopper.

	Characteristic	Mealworm Beetle	Grasshopper
A	Has a four-stage life cycle	Yes	No
B	Young resembles the adult	No	Yes
C	Has a larva stage in its life cycle	Yes	Yes

Which of the above comparisons of the two life cycles are correct?

(1) A only

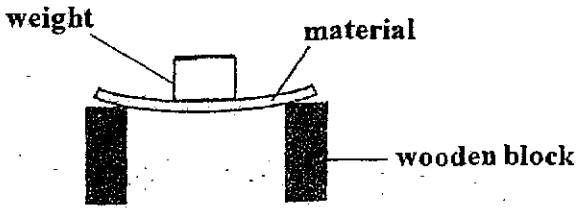
(2) C only

(3) A and B only

(4) A, B and C

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8. Jane set up an experiment as shown below to find out which material is the strongest. She placed identical weights, one at a time, on each material until the material broke.



Which of the following variables must be kept the same in order for her experiment to be fair?

A: Type of materialx

B: Number of weights

C: Thickness of material

(1) B only

(2) C only

(3) A and B only

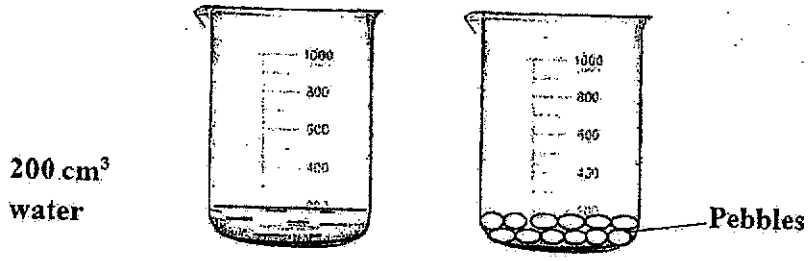
(4) A and C only

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Section B: (14 marks)

For questions 9 to 13, write your answers in this booklet.
The number of marks available is shown in brackets [ ] at the end of each question or part question.

9. Sabrina had two beakers that could hold 1000 cm^3 of water each. In the experiment, she poured 200 cm^3 of water into beaker X and filled beaker Y with pebbles until the pebbles reached the 200 cm^3 mark as shown below.



(a) She then carefully transferred all the pebbles from beaker Y into beaker X. What would be the new water level in beaker X?

Put a tick (✓) in the box below to show the new water level. [1]

New water level in beaker X	Put a tick (✓)
above 400 cm^3	
400 cm^3	
below 400 cm^3	

b) Explain your answer in part (a). [1]

_____

_____

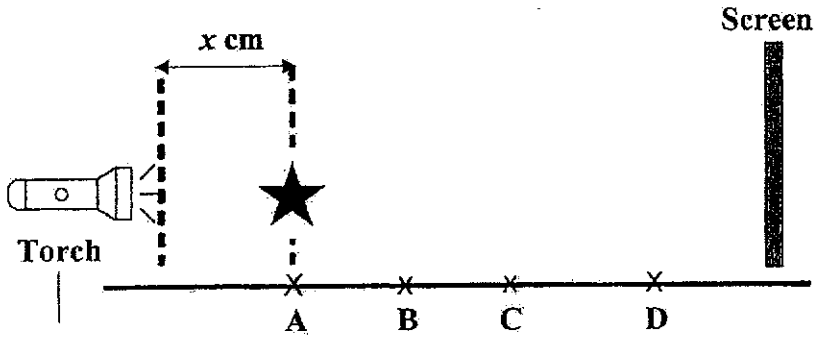
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11. Sam has a star-shaped card as shown below.



star-shaped card

He held it upright on a table, in front of the screen, at position A. Next, he changed the positions of the card from A to B, and then to C and D, and measured the height of the shadows formed on the screen.



The table shows the results of the experiment.

Position of card on the table	**A**	**B**	**C**	**D**
Height of shadow (cm)	16.0	8.5	7.0	5.4

(a) Based on the results above, state the relationship between distance x and the height of the shadow formed on the screen. [1]

_____

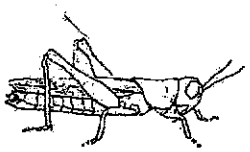
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(b) State one variable Sam should keep the same for the experiment to be fair. [1]

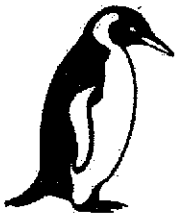
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12. Study the following animals.



Animal X



Animal Y

(a) Based on the observable characteristics of the animals above, state two differences between them. [2]

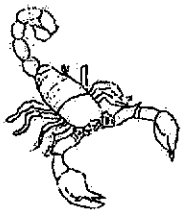
(i) _____

_____

(ii) _____

_____

(b) Study animal Z below.



Animal Z

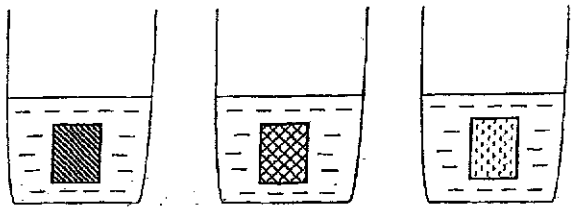
Do you think animal Z belongs to the same group as animal X above? Explain your answer. [1]

_____

_____

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13. John filled three identical beakers with 50 ml of water each. He prepared three similar blocks made of different materials, P, Q, and R. Then, he soaked the blocks in the beakers at the same time as shown below.



After five minutes, he removed the blocks and recorded the final volume of water left in the beakers in the table below.

Material	Volume of water (ml)	
	At the start	After 5 minutes
P	50	40
Q	50	10
R	50	50

(a) What is the aim of the experiment? [1]

_____

_____

(b) Based on the results, which material, P, Q or R, is most suitable for making a water bottle? Explain your answer. [2]

_____

_____

_____

END OF PAPER

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SCHOOL : RULANG SCHOOL
LEVEL : PRIMARY 4
SUBJECT : SCIENCE
TERM : 2024 WA2

Q1)	1
Q2)	1
Q3)	3
Q4)	4
Q5)	4
Q6)	2
Q7)	3
Q8)	2
Q9)	a) below 400 cm3 b) There are spaces between the pebbles and the water will take up these spaces.
Q10)	Missing
Q11)	a) If distance X increases the height of the shadow decreases. b) The distance between the torch and screen.
Q12)	a)i)Animal X is an insect while animal Y is a bird. ii)Animal X has six legs while animal Y has two. b)No. As animal X is an insect and insects has six legs while animal Z has eight legs.
Q13)	a) The aim of the experiment was to see if the materials could absorb water. b) Material R. As R did not absorbed any water compared to the rest and a water battle needs to be waterproof so that it can store water.

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