

METHODIST GIRLS' SCHOOL
Founded in 1887



PRIMARY 4
SCIENCE
WEIGHTED ASSESSMENT 2

Total Time for Paper: 40 mins

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Name: _____ ()

Class: Primary 4. _____

Date : _____ May 2025

Parent's signature: _____

Section A	14
Section B	11
Total	25

This paper consists of 9 printed pages including this page.

Section A

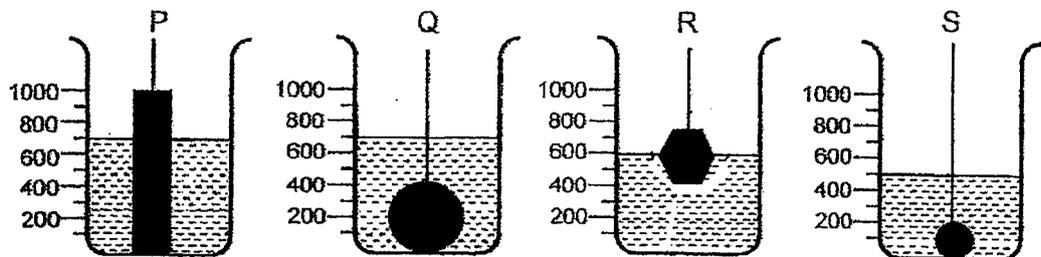
For each question from 1 to 7, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write in the bracket provided. [14 marks]

1 In the human digestive system, which part contains the most amount of digested food?

- (1) mouth
- (2) stomach
- (3) small intestine
- (4) large intestine

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2 Sally conducted an experiment by pouring 400 ml of water into each of four identical beakers. She then gently placed objects, P, Q, R, and S into each beaker as shown below.



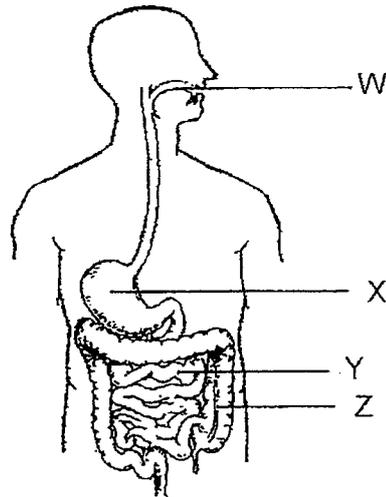
Based only on the above observations, which one of the following statements is definitely correct?

- (1) Object Q has the greatest mass.
- (2) Object R has a volume of 200 ml.
- (3) Object S has the smallest volume.
- (4) Object P and Q have the same volume.

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3 Study the human digestive system below.

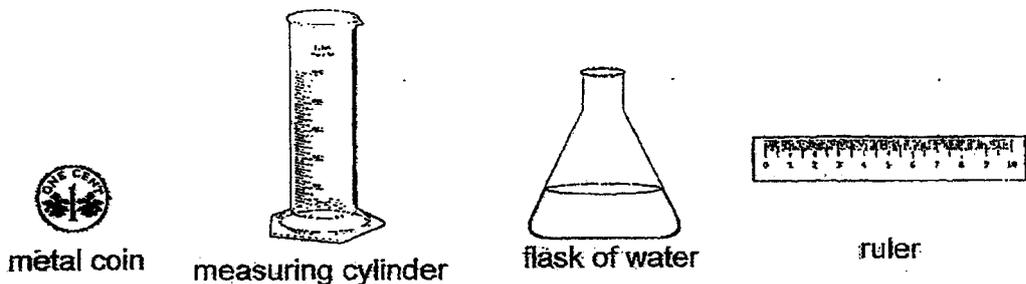


Which of the following is correct?

	Part that helps in digestion of food	Part that helps in absorption of food	Part that helps to absorb water
(1)	W	X	Y
(2)	X	Y	Z
(3)	W	Z	Y
(4)	Y	X	Z

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4 Zain prepared some apparatus as shown below.

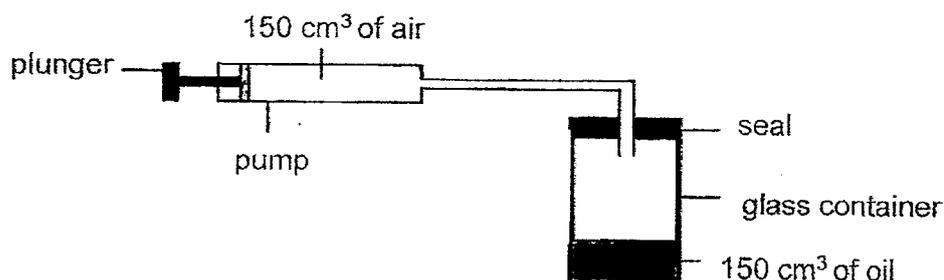


Based on only the materials provided above, which of the following properties of the metal coin cannot be measured or tested?

- (1) Mass of the metal coin
 - (2) Length of the metal coin
 - (3) Volume of the metal coin
 - (4) Ability to float or sink in water
- ()

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- 5 Pei Pei connected a pump to a sealed glass container as shown below. The container has a volume of 500 cm^3 and contains 150 cm^3 of oil.

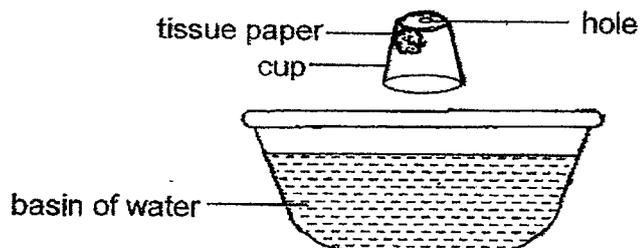


What is the final volume of the air inside the glass container if she pushed in the plunger of the pump completely?

- (1) 150 cm^3
- (2) 300 cm^3
- (3) 350 cm^3
- (4) 500 cm^3

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- 6 Kiera was given the following set-up as shown below. She was asked to push the inverted cup into the basin of water completely.



Based on the experiment above, what will most likely happen?

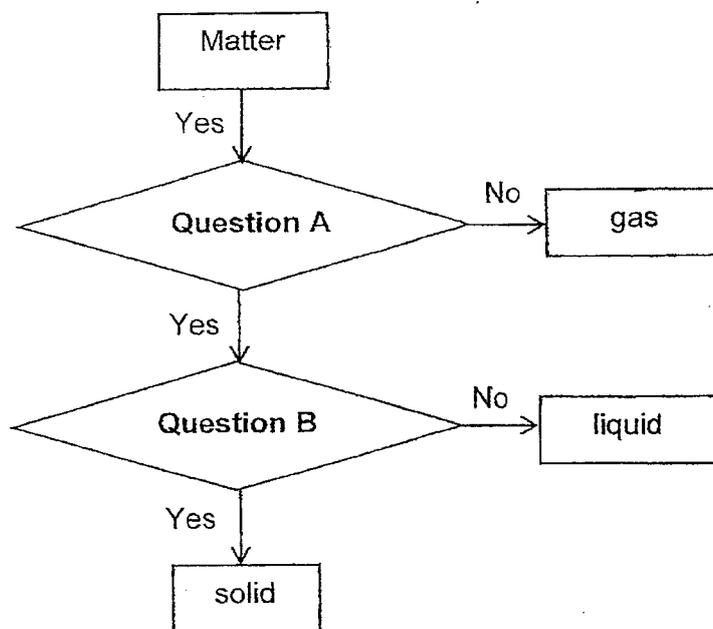
- A The tissue will be wet.
- B The tissue will remain dry.
- C No water will enter the cup.
- D Air will escape through the hole from the cup.

- (1) A only
- (2) B only
- (3) A and D
- (4) B and C

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7 Study the flow chart on matter below.



Which of the following questions are likely represented by A and B?

	Question A	Question B
(1)	Does it have a fixed mass?	Does it have a fixed shape?
(2)	Does it have a fixed shape?	Does it have a fixed volume?
(3)	Does it have a fixed volume?	Does it have a fixed mass?
(4)	Does it have a fixed volume?	Does it have a fixed shape? ()

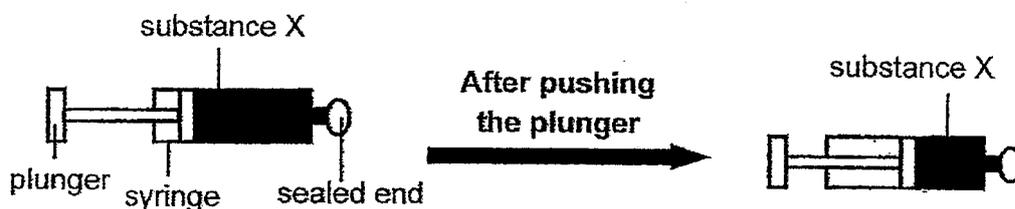
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Section B

For questions 8 to 11, write your answers in the spaces provided.

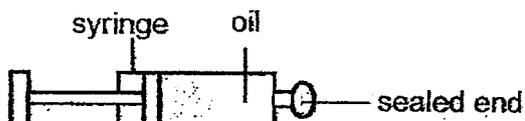
[11 marks]

- 8 Sara filled a syringe with substance X, sealed its end, and pushed the plunger down. She observed that the plunger moved down



- (a) Based on her observation, what **state** of matter is substance X? Explain your answer. [1]

Sarah then removed substance X and filled the syringe completely with oil.

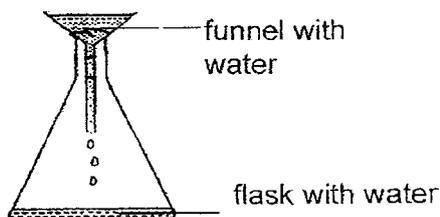


- (b) Can the plunger be pushed in? Give a reason for your answer. [1]



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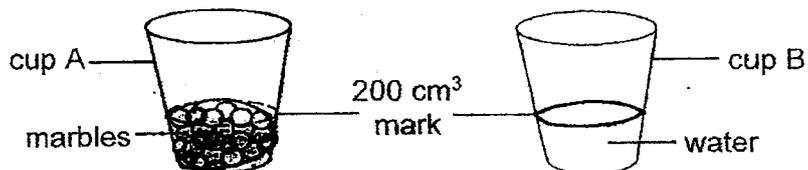
- 9 Some water was poured into a flask through a funnel as shown below. It was observed that the water did not flow easily into the flask at first and eventually stopped flowing completely.



- (a) Explain why the water in the funnel could not flow easily and eventually stopped flowing completely. [2]

- (b) When the funnel was lifted the water in the funnel flowed into the flask completely. Explain why. [1]

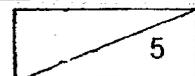
- 10 Some marbles were added into cup A to the 200 cm^3 mark, and some water was poured to the 200 cm^3 mark in cup B as shown below.



- (a) The water from cup B was then poured into cup A. Circle the final volume of the marbles and water in cup A. [1]

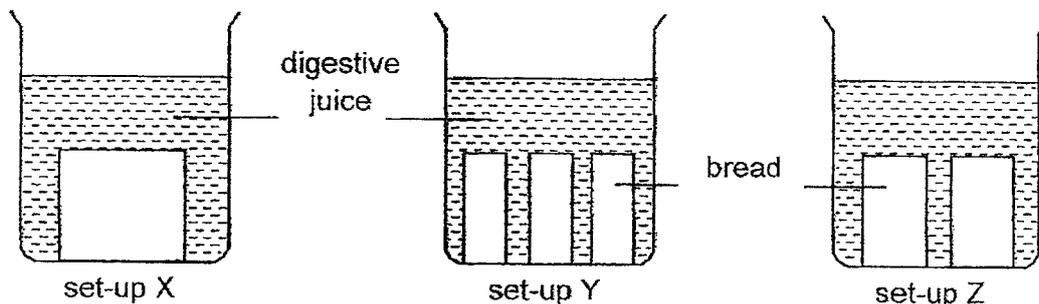
370 cm^3 / 400 cm^3

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



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- 11 Jane wanted to find out if the surfaces of food exposed affects the time required for it to be digested. She cut pieces of bread and placed them into three beakers with digestive juices as shown in the set-ups below.



- (a) In the table below, tick (✓) the appropriate boxes to show which are the variable(s) she should keep the same to ensure a fair test. [1]

Variables	Variables kept the same
Surfaces of bread exposed	
Amount of digestive juices	
Time taken for all the bread to be digested completely	
Total mass of bread in each beaker at the start of the experiment	

The results of Jane's experiment are shown in the table below.

Set-up	Time taken for bread to be digested (min)
X	120
Y	60
Z	90

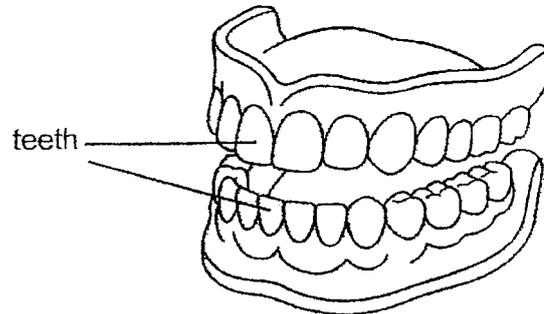
- (b) Based on Jane's results, what was the relationship between the surface of bread exposed and the time taken for the bread to be digested? [1]

The _____ the surfaces of bread exposed, the _____ the time taken for the bread to be digested.

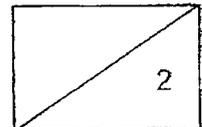


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Due to the loss of teeth, Aunty Lim wears a set of dentures, also known as false teeth, which she uses while eating.



- (c) Explain clearly how the dentures help her to digest food faster. [2]



End of paper

METHODIST GIRLS' SCHOOL (PRIMARY)
SCIENCE WEIGHTED ASSESSMENT 2 2025
PRIMARY 4 - Suggested Answers

Section A (7 X 2m = 18 marks)

1.	3	3.	2	5.	3	7.	4
2.	3	4.	1	6.	3		

Section B [4 questions - 12 marks]

Qn	Suggested Answers										
8a	Matter X is a Gas. Gas has no definite/ fixed volume/ can be compressed. <i>Substance</i>										
8b	No. Oil cannot be compressed/ has a definite/ fixed volume.										
9a	Air in the flask occupies space and is compressed fully.										
9b	Air in the flask escaped when the funnel was lifted, so water could enter the flask to take up the space previously occupied by air.										
10a	370 cm ³										
10b	There are air spaces between the marbles and water enters to take up the space previously occupied by air.										
11a	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 70%;">Variables</th> <th style="width: 30%;">Keep Constant</th> </tr> </thead> <tbody> <tr> <td>Surface of bread exposed</td> <td></td> </tr> <tr> <td>Amount of digestive juices</td> <td style="text-align: center;">✓</td> </tr> <tr> <td>Time taken for all the food to be digested completely</td> <td></td> </tr> <tr> <td>Total mass of food in each beaker at the start of the experiment</td> <td style="text-align: center;">✓</td> </tr> </tbody> </table>	Variables	Keep Constant	Surface of bread exposed		Amount of digestive juices	✓	Time taken for all the food to be digested completely		Total mass of food in each beaker at the start of the experiment	✓
Variables	Keep Constant										
Surface of bread exposed											
Amount of digestive juices	✓										
Time taken for all the food to be digested completely											
Total mass of food in each beaker at the start of the experiment	✓										
11b	The <u>greater</u> the surface area of bread exposed, the <u>shorter</u> the time taken for the bread to be digested.										
11c	The dentures help to break food into smaller pieces to increase the surface of food in contact with the digestive juices.										

