



MAHA BODHI SCHOOL
2019 SEMESTRAL ASSESSMENT 2
PRIMARY THREE SCIENCE
(BOOKLET A)

Name : _____ ()

Class : Primary 3 _____

Date : 1 November 2019

Total Duration for Booklets A and B: 1 h 30 min

INSTRUCTIONS TO CANDIDATES:

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.

This booklet consists of **13** printed pages.

1. The following table shows the marks obtained by 10 students in a Mathematics test. The marks are: 12, 15, 18, 20, 22, 25, 28, 30, 32, 35. Find the mean mark.

2. A class of 30 students took a Science test. The marks were: 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70. Find the median mark.

3. The following table shows the marks obtained by 10 students in a Mathematics test. The marks are: 12, 15, 18, 20, 22, 25, 28, 30, 32, 35. Find the mode mark.

4. A class of 30 students took a Science test. The marks were: 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70. Find the range of marks.

5. The following table shows the marks obtained by 10 students in a Mathematics test. The marks are: 12, 15, 18, 20, 22, 25, 28, 30, 32, 35. Find the standard deviation of the marks.

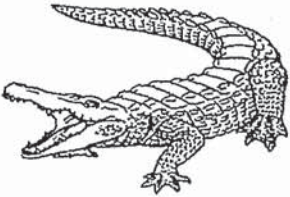
BOOKLET A : [21 x 2 marks = 42 marks]

For each question from 1 to 21, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Shade your answer on the Optical Answer Sheet.**

1. Which of the following statements about living things is not correct?

- (1) All living things grow.
- (2) All living things respond to changes.
- (3) All living things need air, food and water to survive.
- (4) All living things reproduce by giving birth to young alive.

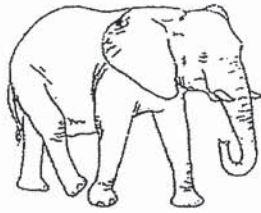
2. Study the classification table below.

Group D	Group E
 	 

Which one of the following pair is the correct heading for groups D and E?

	Group D	Group E
(1)	live in water	live on land
(2)	move on its own	do not move on its own
(3)	able to reproduce	do not reproduce
(4)	need food to survive	do not need food to survive

3. Study the animals J and K below.



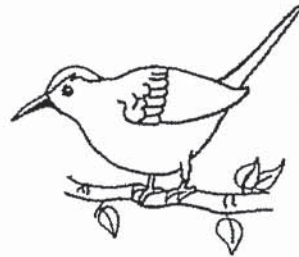
Animal J



Animal K

Which of the following statements is correct?

- (1) Both animals J and K live on both land and water.
 - (2) Both animals J and K have hair as their outer covering.
 - (3) Animal J lays eggs but animal K gives birth to its young.
 - (4) Animal J gives its young milk but animal K does not give its young milk.
4. Study the animal Q shown below.



Animal Q

Which of the following statements below is not correct about the animal group that animal Q belongs to?

- (1) All of them can fly.
- (2) All of them have wings.
- (3) All of them have a beak.
- (4) All of them have feathers.

5. During a field trip, Mariam spotted and observed organisms Y and Z as shown below.



Organism Y



Organism Z

Which of the following statement is true?

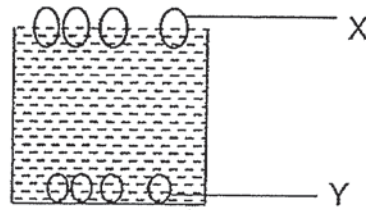
- (1) Organism Y does not make its own food.
 - (2) Organism Z is able to make its own food.
 - (3) Both organisms Y and Z reproduce by spores.
 - (4) Both organisms Y and Z are classified as fungi.
6. | The diagram below shows a bicycle. X is a part of the wheel of a bicycle.



Metal is suitable for making part X because it _____.

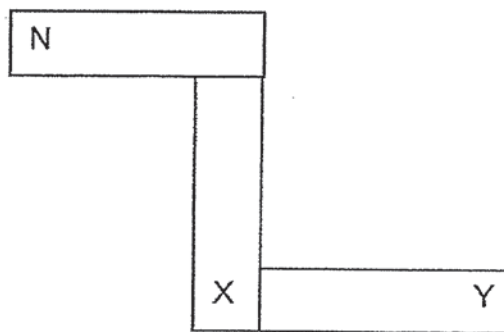
- (1) is strong
- (2) is flexible
- (3) is magnetic
- (4) can float on water

7. Kenneth placed the two materials, X and Y, in a beaker of water and made the following observations of the two materials as shown below.



Based on his observation, what property of materials X and Y was he testing?

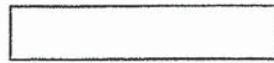
- (1) flexibility
 - (2) transparency
 - (3) ability to float or sink
 - (4) ability to absorb water
8. The diagram below shows three magnets.



Which one of the following pairs shows the correct poles for X and Y?

	X	Y
(1)	North	South
(2)	South	South
(3)	South	North
(4)	North	North

9. Jeff used a magnet and held it near three objects S, T and U which are made of different metals.



magnet



object

He moved the magnet near the object and recorded his observations in the table below. A tick (✓) shows the observation he made.

Objects	Attract	Repel
S	✓	×
T	×	×
U	✓	✓

Based on his observations above, which of the following statements is correct?

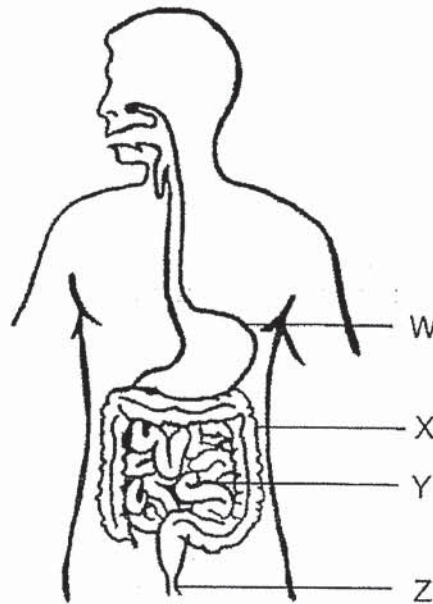
- (1) Object U is a magnet.
- (2) Object T is made of iron.
- (3) Object U is non-magnetic.
- (4) Both S and U are magnets.

10. Which two statements about the human respiratory system are correct?

- A. The heart is part of the respiratory system.
- B. The windpipe is part of the respiratory system.
- C. The respiratory system pumps blood to all parts of the body.
- D. The respiratory system helps body to take in and remove air.

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

11. The diagram below shows the human digestive system.



Part _____ is where digestion is completed.

- (1) W
- (2) X
- (3) Y
- (4) Z

12. Study the following things shown below.



police car



traffic light



telephone



grasshopper

Which of the above things does not belong to the same group as others?

- (1) police car
- (2) traffic light
- (3) telephone
- (4) grasshopper

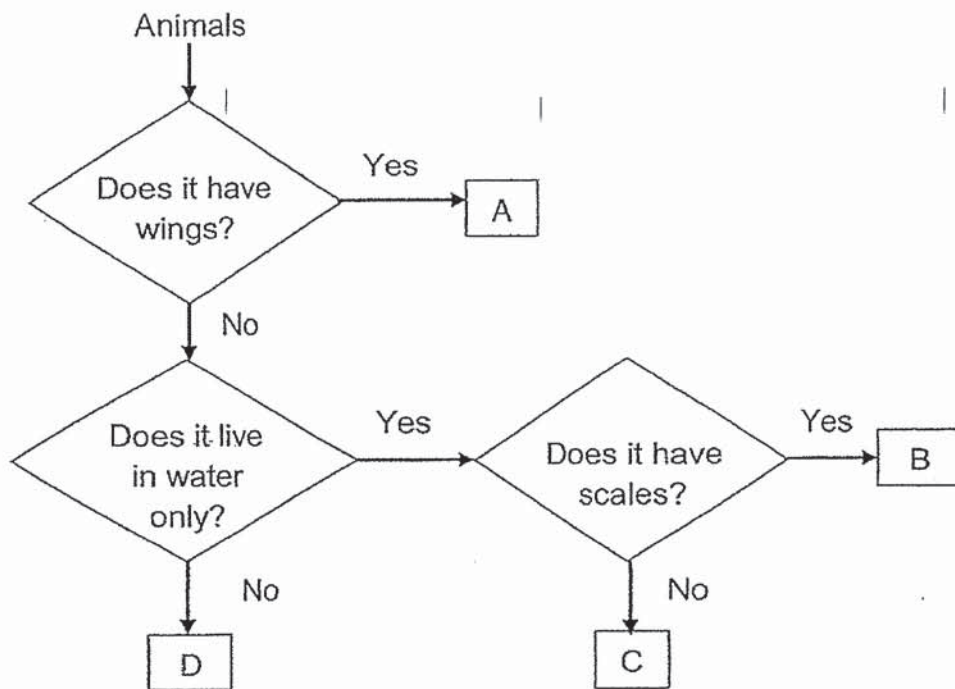
13. A pupil recorded some observations about organism X.

- It is green.
- It has spores.
- It has leaves but no flowers.
- It grows on trees and in the soil.

Which one of the following is possibly organism X?

- (1) fern
- (2) mould
- (3) mushroom
- (4) papaya plant

14. Study the flowchart below.



Based on the flowchart above, which one of the following best represents animal A, B, C and D?

	A	B	C	D
(1)	bee	frog	goldfish	dolphin
(2)	bat	goldfish	dolphin	frog
(3)	pelican	snake	seal	crocodile
(4)	frog	goldfish	dolphin	bat

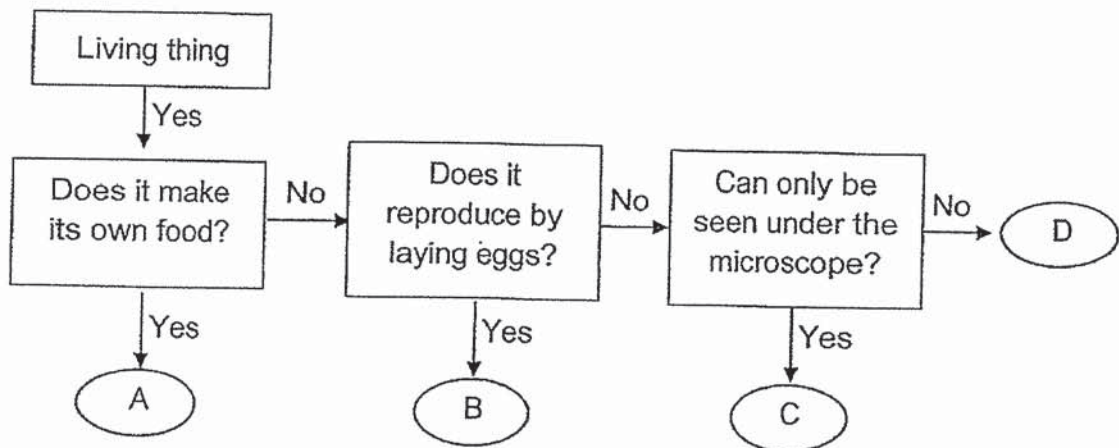
15. Study the characteristics of animals G and H shown in the table below.
A tick (✓) shows that the characteristic is present.

Characteristics	Animal G	Animal H
wings	✓	✓
feathers	×	✓
three pairs of legs	✓	×

Which one of the following pairs below best represents the animal groups for animals G and H?

	Animal G	Animal H
(1)	mammal	bird
(2)	mammal	insect
(3)	insect	bird
(4)	insect	mammal

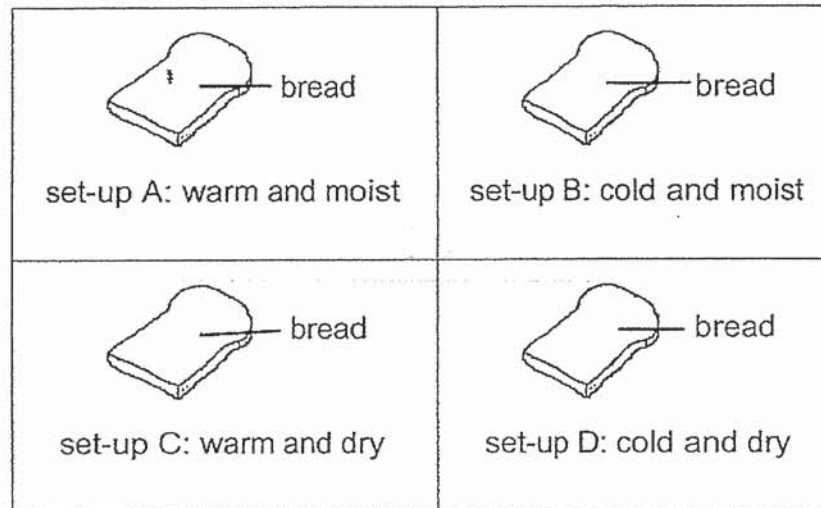
16. Study the flowchart below.



Which of the following correctly shows what A, B, C and D are?

	A	B	C	D
(1)	bacteria	plants	fungi	reptiles
(2)	fungi	reptiles	plants	bacteria
(3)	plants	bacteria	birds	fungi
(4)	plants	birds	bacteria	fungi

17. Daniel carried out an experiment using the four set-ups A, B, C and D as shown in the diagram below.



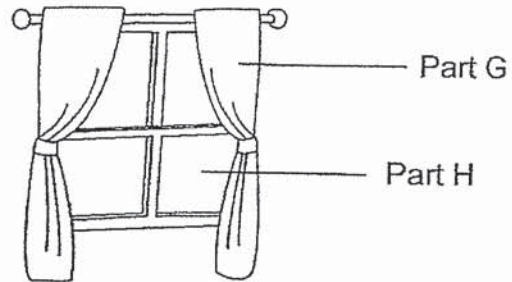
Based on his experiment, in which of the set-ups would mould be growing on the bread after one week?

- (1) Set-up A
- (2) Set-up B
- (3) Set-up C
- (4) Set-up D

18. The table below shows the properties of four different materials W, X, Y and Z.

Material	Strong	Flexible	Allows light to pass through
W	✓	✓	x
X	x	✓	x
Y	✓	x	✓
Z	x	✓	✓

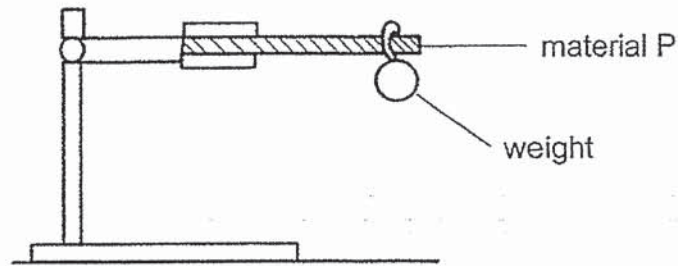
The diagram below shows a window with curtains in a bedroom.



Which of the following are suitable materials for parts G and H?

	Part G	Part H
(1)	material W	material X
(2)	material W	material Y
(3)	material X	material Y
(4)	material Y	material Z

19. Nicole conducted an experiment to find out which materials P, Q, R or T would be suitable to make a pole to hang clothes. She hung weights onto the four materials until it broke.



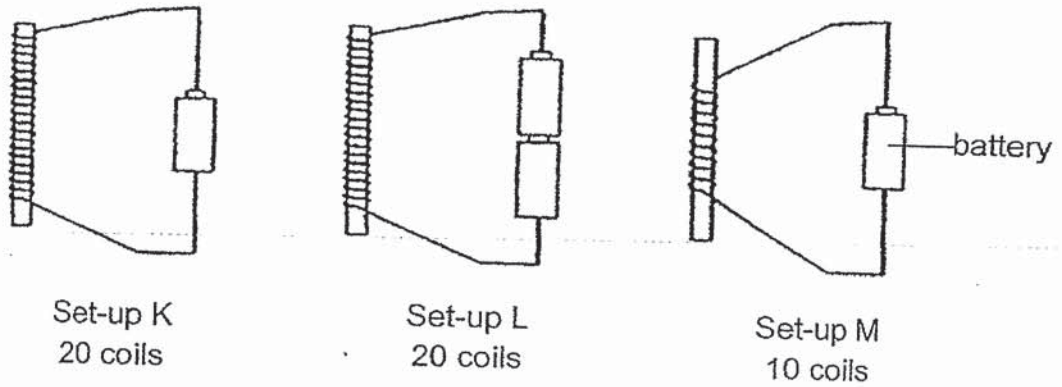
She recorded the amount of weight each material was able to hold before it broke in the table below.

Material	Amount of weight before the material broke / kg
P	2
Q	10
R	4
T	6

Based on the results, which material would be most suitable to make the pole to hang clothes?

- (1) P
- (2) Q
- (3) R
- (4) T

20. Andrew made three electromagnets set-ups K, L and M. He used similar batteries, iron rods and wires as shown in the diagram below.

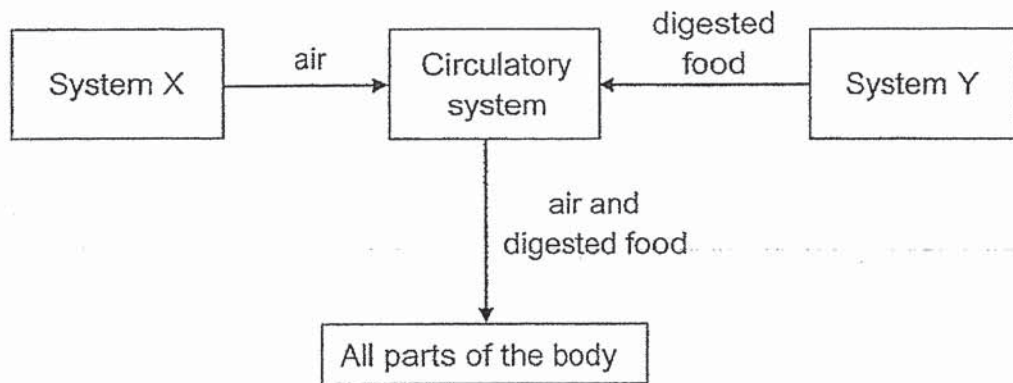


He arranged set-ups K, L and M from the one that attracts the least metal clips to the one that attracts the most.

Which of the following shows the correct order of metal clips attracted in the set-ups?

	Least	→	Most
(1)	K	M	L
(2)	L	M	K
(3)	M	K	L
(4)	M	L	K

21. The flowchart shows how air and digested food are transported in the human body.



Which of the following correctly represents systems X and Y?

	System X	System Y
(1)	Circulatory	Digestive
(2)	Skeletal	Respiratory
(3)	Digestive	Circulatory
(4)	Respiratory	Digestive

END OF BOOKLET A

GO ON TO BOOKLET B



MAHA BODHI SCHOOL
2019 SEMESTRAL ASSESSMENT 2
PRIMARY THREE SCIENCE
(BOOKLET B)

Name: _____ ()

Class: Primary 3 _____

Date : 1 November 2019

Total Duration for Booklets A and B: 1 h 30 min

INSTRUCTIONS TO CANDIDATES:

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write all your answer in this booklet.

Booklet	Marks Obtained	Max Marks
A		42
B		28
Total		70

Parent's signature: _____

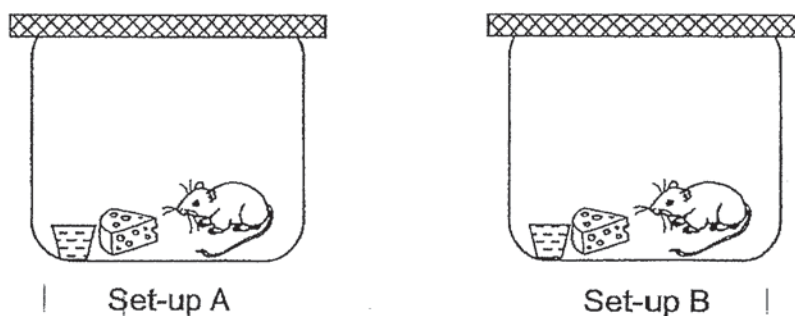
This booklet consists of 8 printed pages.

BOOKLET B : [28 marks]

For questions 22 to 29, write your answers in this booklet.

The number of marks available is shown in the brackets [] at the end of each question or part-question.

22. Jamie conducted an experiment over one week. He has two set-ups, A and B, as shown in the diagram below. He placed a living mouse in one set-up and a toy mouse in the other set-up. In each set-up, he placed the same amount of food and water at the beginning of the experiment.



Set-up	Amount of food / g	
	At the beginning	After 1 week
A	30	0
B	30	30

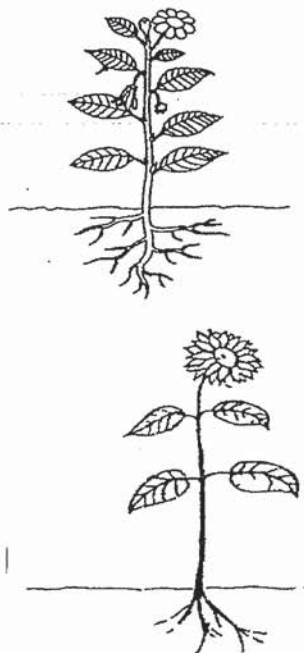
Based on the results above, which set-up, A or B, contained a living mouse?
Explain your answer.

[2]

Marks :

/ 2

23. Study the classification table.

Group P	Group Q
	

- (a) Based on the reproduction method of the plants above, give a suitable heading for groups P and Q. [2]

P: _____

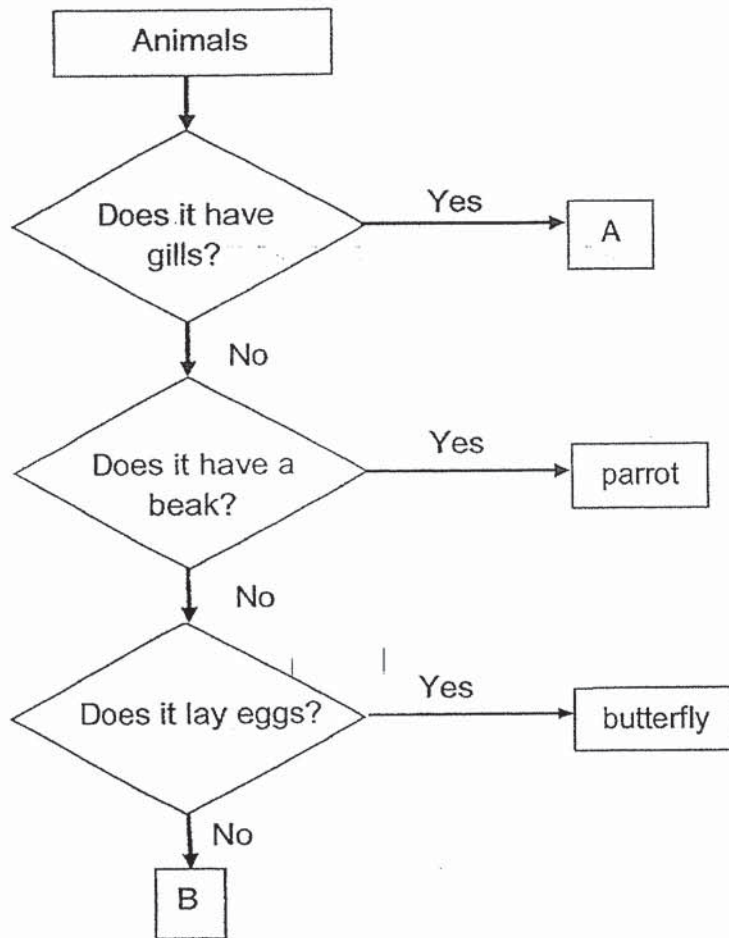
Q: _____

- (b) Which of the group of plants above, P or Q, will bear fruits? Explain your answer. [2]

Marks :

/ 4

24. Study the flowchart below.



- (a) (i) Based on the flowchart above, what is the difference between animal A and a parrot? [1]

- (ii) State the animal group for A: _____ [1]

- (b) State the animal group for animal B. Explain your answer. [1]

Marks : / 3

25. Study the table below. It shows the characteristics of animals M, N, P and Q. A tick (✓) shows that the characteristic is present.

Animals	Characteristics		
	has scales	lives in water	has wings
M	✓	x	x
N	x	✓	x
P	✓	✓	x
Q	x	x	✓

- (a) Animal M is an insect. Explain if the statement is correct or incorrect. [1]

- (b) Match the animals above, M, N, P and Q, to the correct animals below. Write M, N, P and Q in the boxes below. [2]

Animals	M, N, P and Q
goldfish	
whale	
snake	
penguin	

Marks :

/ 3

26. Samuel conducted an experiment to find out the properties of material J, K, L and M. The results are shown in the table below.

Properties	Material			
	J	K	L	M
able to float	No	Yes	No	Yes
able to bend	Yes	Yes	Yes	Yes
waterproof	No	Yes	Yes	No

- (a) State one property that is similar to all of the materials. [1]

- (b) The swimming float below helps the boy to stay afloat in water.



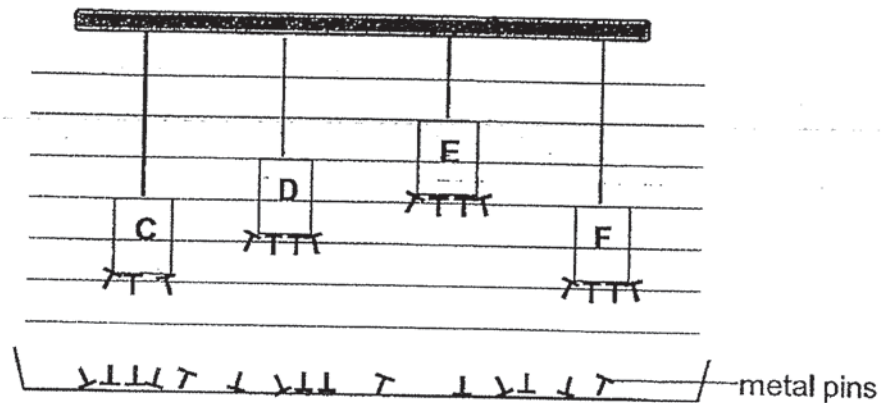
- (i) Which material J, K, L or M is the best to make the swimming float? [1]

- (ii) Explain your answer in (i). [2]

Marks :

/ 4

27. John wanted to find out which magnet is the strongest. He hung four different magnets C, D, E and F above a tray of metal pins. The results are shown below.



- (a) State the property of the metal pins which allowed them to be attracted by the magnets. [1]

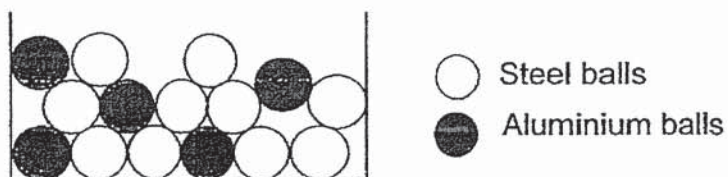
- (b) Arrange the magnets from the strongest to the weakest. Fill in the boxes below with letters C, D, E and F. [2]

strongest → weakest			

- (c) What can be done to magnet C in order for it to attract the same number of pins as the other magnets? [1]

Marks : / 4

28. Ethan mixed different types of metal balls in a container as shown below.



He was given a U-shaped magnet labelled, H and K as shown below.



- (a) Which part of the magnet, H or K, should he use to attract the most number of metal balls? Explain your answer. [1]

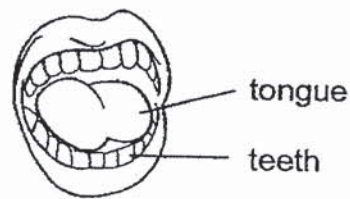
- (b) (i) Using the U-shaped magnet, explain how Ethan can separate the steel balls from the aluminium balls. [2]

- (ii) Which balls, steel or aluminium, could be turned into a magnet? Give a reason your answer. [1]

Marks :

/ 4

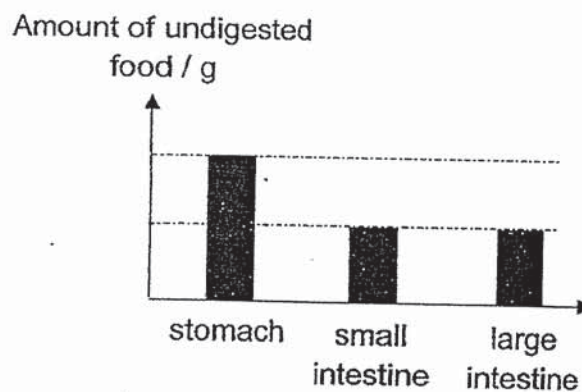
29. The diagram below shows a mouth.



- (a) Tick (✓) in the table below two possible ways how mouth helps in the digestion of food. [2]

(i)	Teeth produce digestive juices.	
(ii)	Food is chewed into smaller pieces.	
(iii)	Saliva moistens and softens the food.	

- (b) The graph below shows the amount of undigested food in the stomach, small intestine and large intestine.



Based on the graph, explain the change in the amount of undigested food from the stomach to the small intestine and large intestine. [2]

Marks :

/ 4

~ END OF PAPER ~

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ANSWER KEY

YEAR : 2019
LEVEL : PRIMARY 3
SCHOOL : MAHA BODI SCHOOL
SUBJECT : SCIENCE
TERM : SA2

BOOKLET A

Q1	4	Q2	2	Q3	4	Q4	1	Q5	3
Q6	1	Q7	3	Q8	2	Q9	1	Q10	3
Q11	3	Q12	4	Q13	1	Q14	2	Q15	3
Q16	4	Q17	1	Q18	2	Q19	2	Q20	3
Q21	4								

BOOKLET B

Q22 Set-up A. The amount of fod after 1 week was lesser, Living things need food to live.

Q23 (a)P: by seeds

Q: by spores

(b)P. They are flowering plant as flowering plants bear fruits.

Q24 (a)(i)Animal A have gills but the parrot does not.

(ii)Fish

(b)Mammals.Mammals do not have gills, a beak, and does not lay eggs

Q25 (a)Animal A is not insect because insects have no scales.

(b) P

N

M

Q

/

Q26 (a) The ability to bend.

(b)(i) K

(ii) A float must be able to float, and must be waterproof so that the user can sit on it.

Q27 (a) The metal pins are made out of a magnetic material.

(b) E D F C

(c) Make the string longer for magnet C.

Q28 (a) H. It is the pole of the magnet. A magnet is strongest at its poles.

(b)(i) Use the magnet to attract the steel balls. Steel is a magnetic material.

(ii) Steel. It is a magnetic material.

Q29 (a)

(ii) Food is chewed into smaller pieces ✓

(iii) Saliva moisten and softens the food ✓

(b) Amount of undigested food in the small intestine decreased from the amount of undigested food in the stomach as food is digested in small intestine. Amount of undigested food remained the same between small and large intestine as no digestion takes place in large intestine.

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