



SURREKEY EXAMINATIONS BOARD
PRIMARY SEVEN MAGIC SERIES EXAMINATION
2023

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Index No.	EMIS No.	Personal No.
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Pupil's Name:

Pupil's Signature:

School Name:

District Name:

Read the following instructions carefully:

1. Do not forget to write your **school** or **district name** on the paper.
2. This paper has two sections: **A** and **B**.
Section **A** has **40** questions and section **B** has **15** questions. The paper has **15** printed pages.
3. Answer **all** questions. **All** working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil will **not** be marked.
5. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks**.
6. Do not fill anything in the table indicated: **"For Examiners' use only"** and boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
Qn. No.	MARKS	EXR'S NO.
1 – 10		
11 – 20		
21 – 30		
31 – 40		
41 – 43		
44 – 46		
47 – 49		
50 – 52		
53 – 55		
TOTAL		

SECTION A: 40 MARKS

Questions **1** to **40** carry **one mark** each

1. Name the body organ that is affected by a scald.

.....

2. Which vector spreads typhus fever to people?

.....

3. State any **one** characteristic of tuber crop pests.

.....

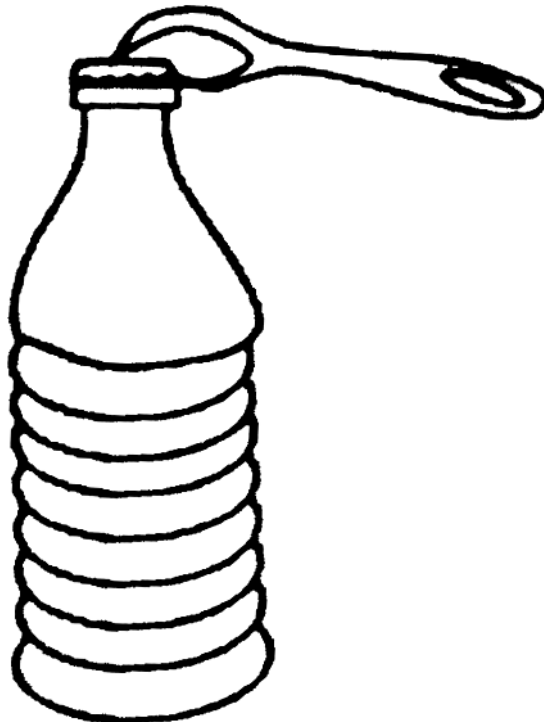
4. Give any **one** mammal that uses echoes in its daily life.

.....

5. What is the importance of the long thin legs to wading birds?

.....

The diagram below is of a simple machine being used. Use it to answer questions **6** and **7**.



6. To which class of levers does the simple machine above belong?

.....

7. Using an arrow and letter **J**, show the turning point of the machine

8. Apart from brewing alcohol, give any **one** other way in which fermentation is important to people.

.....
9. State any **one** sign of improper growth of teeth in the mouth.

.....
10. Name the type of soil erosion that can result into landslides in mountainous areas.

.....
11. State any **one** advantage of regular bathing to an individual.

.....
12. Give any **one** way in which gravitational force is important in the environment.

.....
13. In which way is blood plasma important during respiration?

.....
14. Which property of light enables drivers to see traffic behind them using side mirrors?

.....
15. Give any **one** example of a plant fibre in the environment.

.....
16. State any **one** way in which Primary Health Care is important to the community.

.....



17. Give any **one** reason why a rabbit hutch is built using a wire mesh.

.....

18. State any **one** way in which the jelly laid with eggs is important to the amphibians.

.....

19. Name any **one** method that can be used to prepare local dishes at home.

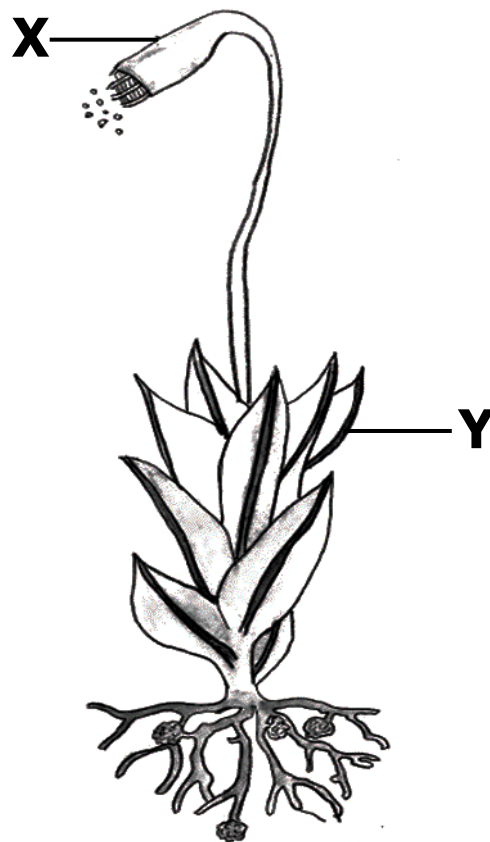
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20. State any **one** way in which biological changes are important in the environment.

.....



The diagram below shows a non-flowering plant. Use it to answer questions **21** and **22**.



21. Name the part marked **X**.

.....

22. How is part marked **Y** useful to the non-flowering plant shown above?

.....

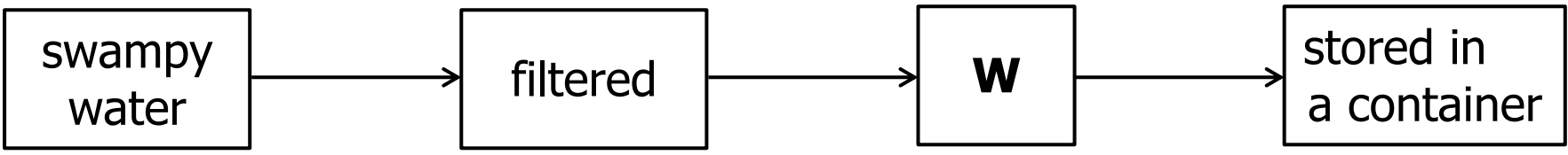
23. State any **one** way in which flush toilets can be properly maintained.
-
24. Apart from Angora goats, which other breed of goats promotes the development of textile industries?
-
25. State any **one** factor that should be considered before setting up a woodlot.
-
26. State any **one** way in which saliva is important in the process of digestion.
-
27. Name the material used to stitch the bandage at the wound when giving first aid.
-
28. Calculate the mass of an object whose density is 6g/cc and volume is 14cc.
-
29. Name the substance that protects the skin against strong sun rays.
-
30. Give any **one** example of an energy resource that can be obtained from water.
-



31. Identify any **one** activity that people can do using heat transfer by conduction.

.....

The diagram below shows different ways in which water can be used by a family to make swampy water safe for drinking. Use it to answer questions **32** and **33**.



32. Identify the activity carried out at point **W**.

.....

33. Why is the swampy water filtered before being taken to point **W**?

.....

.....

34. Give any **one** way of preventing diseases without using essential drugs.

.....

35. Which property of air helps people to inflate bouncing castles?

.....

36. Apart from carbohydrates, give any **one** other class of food that provides energy to the body.

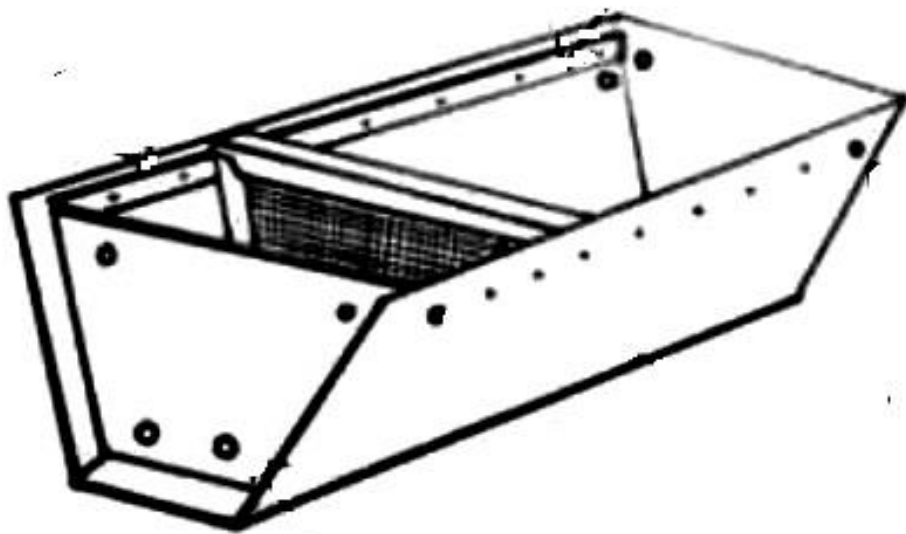
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37. In which part of a cotton flower does fertilization take place?

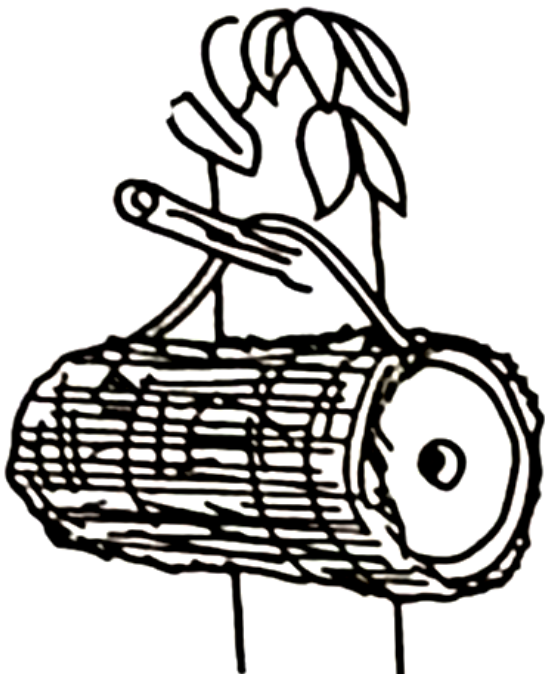
.....

The diagram below shows beehives. Use it to answer questions **35** and **36**.

D



E



38. Name the beehive marked **E**.

.....

39. State any **one** advantage of using beehive marked **D** in keeping honey bees.

.....

40. Write down any **one** piece of information collected during a health survey.

.....



SECTION B: 60 MARKS

Questions **41** to **55** carry four marks each.

41. (a) Name the germ that causes typhoid to people.

.....

(b) State any **two** ways in which people can contract typhoid.

(i)

(ii)

(c) Give any **one** piece of advice you would give to people in order to control the outbreak of typhoid in their homes.

.....

42. (a) Apart from chemicals, name any **two** other materials that affect the quality of soil.

(i)

(ii)

(b) State any **two** ways in which chemicals affect the quality of soil.

(i)

(ii)

43. (a) State any **two** ways in which a primary seven candidate can use friction when doing his/her Primary Leaving Examinations (P.L.E).

(i)

(ii)

(b) Why is grease applied on the chain of a bicycle?

.....

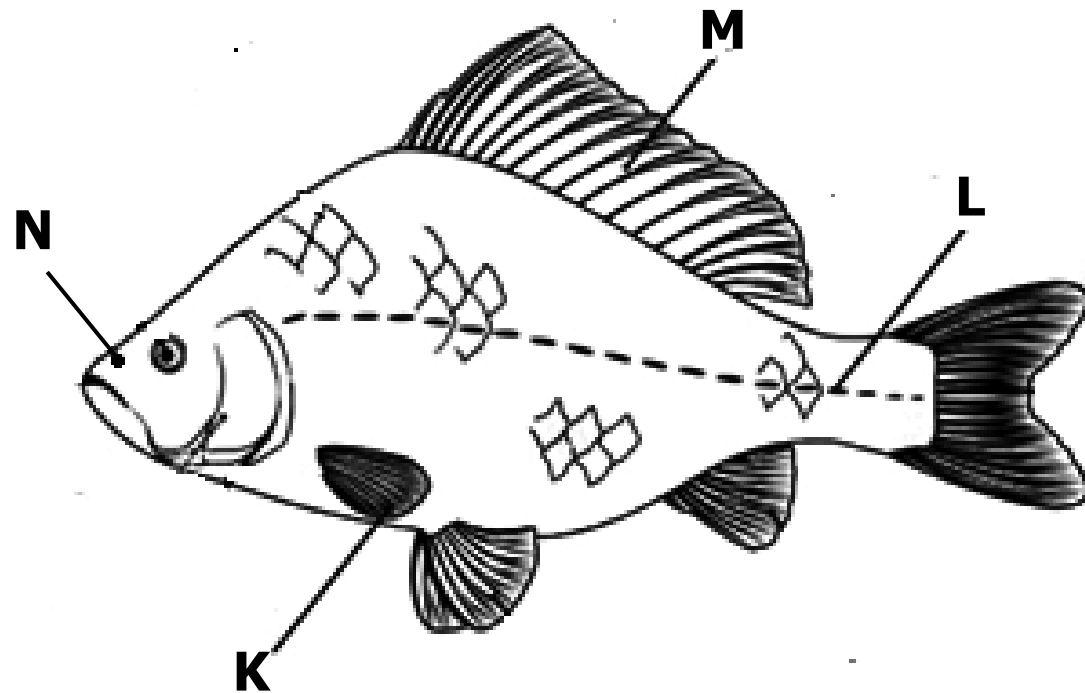
- (c) What is the importance of treads that are put on the car tyres and bicycle wheels?

.....

.....



44. The diagram below is of a vertebrate. Study and use it to answer the questions that follow.



- (a) Name the parts marked **K** and **M**.

(i) **K**

(ii) **M**

- (b) Give the function of the part marked **L** to the vertebrate above.

.....

- (c) Which part on the vertebrate above has the same function as the antennae of an insect?

.....

45. The table below shows vaccines received by five babies at different immunization periods. Study and use it to answer the questions that follow.

Babies	Vaccine received			
	Polio	BCG	DPT	Measles
O	X	X	X	X
P	✓	✓	✓	✓
Q	✓	X	✓	✓
R	X	X	X	✓
S	✓	X	X	✓

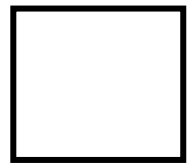
- (a) Which baby received all the vaccines?
.....
- (b) Identify the vaccine that most babies did not receive.
.....
- (c) Name any **one** disease that is likely to attack babies **O, R** and **S**.
.....
- (d) Give any **one** other vaccine that babies could have received.
.....

46. (a) Write down any **two** steps that a cattle farmer would take to obtain clean milk.

(i)
(ii)
- (b) Give any **one** advantage of machine milking over hand milking.
.....

(c) How does pasteurization help to preserve milk?

.....



47. Use the list of substances below to answer the questions that follow.

ice, sugar, steam, water

(a) Which substance on the list is formed as a result of evaporation?

.....

(b) Identify the substance on the list that is;

(i) a solute

(ii) a universal solvent

(c) Give any **one** way in which ice and sugar on the list above are similar.

.....

48. (a) Name any **one** example of the types of bones below in the human body.

(i) Short bones

(ii) Flat bones

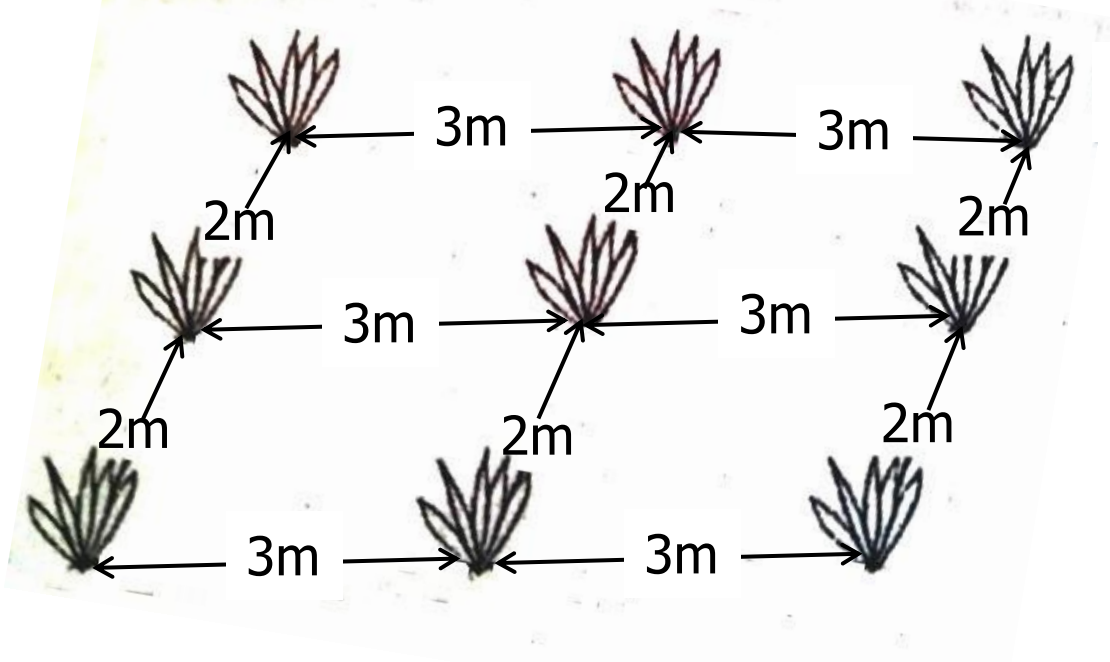
(b) Identify the body system to which bones belong.

.....

(c) How is the function of synovial fluid similar to that of the cartilage in the joint?

.....

49. The diagram below shows a method of planting crops in the garden. Study and use it to answer the questions that follow.



- (a) Identify the method of planting crops shown in the diagram above.

- (b) State any **two** advantages of spacing crops as shown in the diagram above.
 - (i)
 - (ii)
- (c) Which garden tool is suitable for spacing crops as shown in the diagram above?



- 50. (a) Give any **one** reason why pregnant mothers are advised to eat food rich in proteins.

- (b) Apart from proteins, write down any **two** other classes of food that a pregnant mother should eat.
 - (i)
 - (ii)

(c) How can the pregnant mother protect her unborn baby from tetanus during childbirth?

.....

51. The table below shows parts of the human ear in part **A** and their functions in the part **B**.

A: Parts of the ear	B: Functions
Pinna	Converts sound vibrations into nerve impulses.
Eardrum	Amplify sound vibrations.
Ossicles	Changes sound waves into vibrations.
Cochlea	Collects sound waves from the surroundings.

Match correctly the parts of the ear with their functions in the spaces provided below.

- (i) Pinna
- (ii) Eardrum
- (iii) Ossicles
- (iv) Cochlea

52. (a) How is a rain gauge useful at a weather station?

.....

(b) Name the **two** components of a rain gauge.

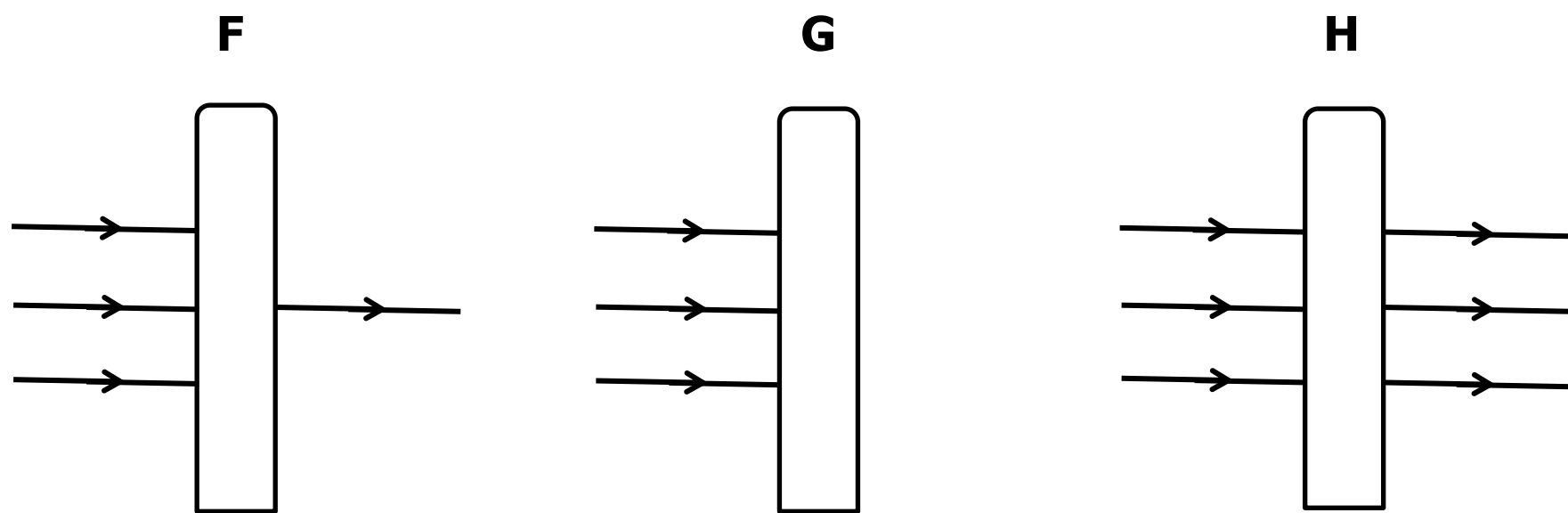
- (i)
- (ii)

(c) Why should a rain gauge be put in an open place?

.....



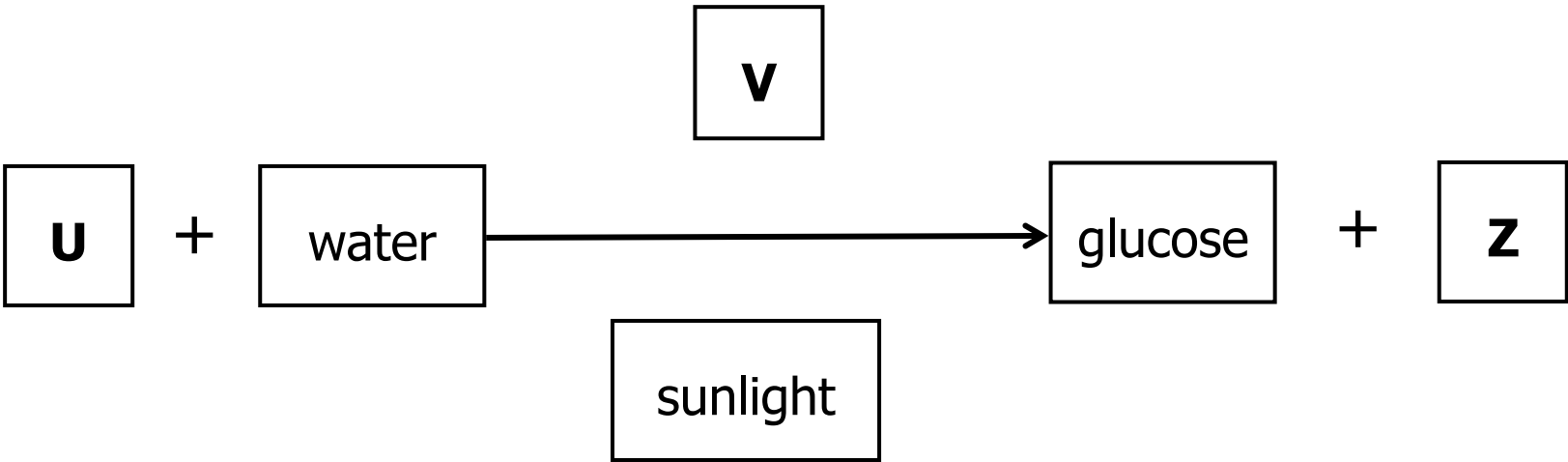
53. The illustrations below show the effects of different objects on light. Study and use it to answer the questions that follow.



- (a) Name the types of objects represented by the illustrations marked **F** and **G**.
 - (i) **F**
 - (ii) **G**
- (b) State any **one** use of objects represented by illustration marked **H** to people.
.....
- (C) Give any **one** other object that belongs to illustration marked **F**.
.....

54. (a) Mention **two** systems of keeping poultry where birds are kept for commercial purpose.
- (i)
 - (ii)
- (b) Give any **two** advantages of artificial brooding in poultry management.
- (i)
 - (ii)

55. The diagram below shows a plant process. Study and use it to answer the questions that follow.



- (a) Which process in plants is shown in the diagram above?
.....
- (b) Name the substances represented by letters **U** and **V**.
- (i) **U**
- (ii) **V**
- (c) How do animals benefit from the substance produced at **Z**?
.....

