



SURREKEY EXAMINATIONS BOARD  
PRIMARY SEVEN SUPER SERIES EXAMINATION  
2023  
INTEGRATED SCIENCE

*Time Allowed: 2 hours 15 minutes*

<b>Index No.</b>	<b>EMIS No.</b>	<b>Personal No.</b>									
	<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 16.6%; height: 20px;"></td><td style="width: 16.6%; height: 20px;"></td><td style="width: 16.6%; height: 20px;"></td><td style="width: 16.6%; height: 20px;"></td><td style="width: 16.6%; height: 20px;"></td><td style="width: 16.6%; height: 20px;"></td></tr></table>							<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 33.3%; height: 20px;"></td><td style="width: 33.3%; height: 20px;"></td><td style="width: 33.3%; height: 20px;"></td></tr></table>			

**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 type of thermometer that uses both mercury and alcohol.

.....

2. Which vector spreads sleeping sickness to people?

.....

3. State any **one** way of promoting physical exercises among chickens in a poultry house.

.....

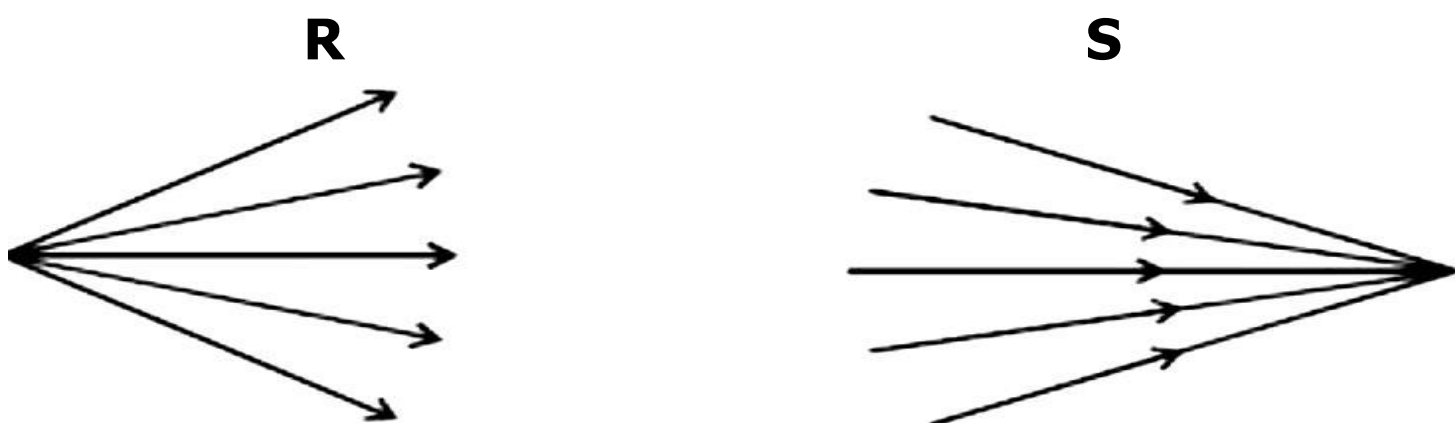
4. Write down any **one** activity done by an individual to promote good health lifestyle.

.....

5. Which group of mammals have blubber in their bodies?

.....

The diagram below shows two beams of light. Use it to answer questions **6** and **7**.



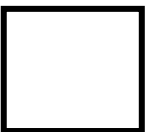
6. Name the beam of light marked **R**.

.....

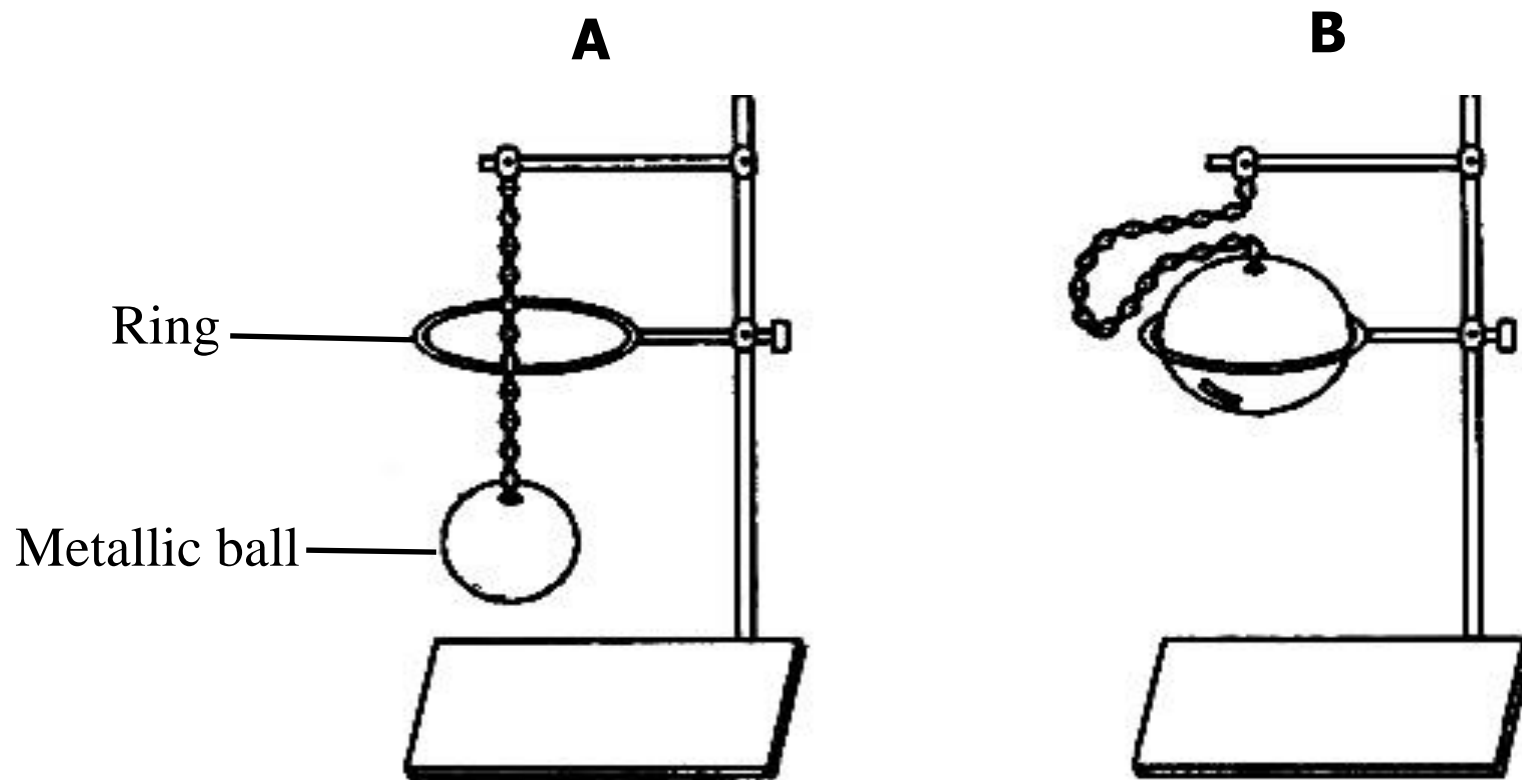
7. What type of lens is used to make rays move as shown in **S**?

.....

8. State any **one** method a farmer can use to control inbreeding in sheep.  
.....
9. Why does a housefly die when its abdomen is dipped in water for a long time?  
.....
10. In which way does overgrazing lead to soil erosion?  
.....
11. How does a flying bee produce sound?  
.....
12. Which immunisable disease is spread through having unprotected sex with an infected person?  
.....
13. State the difference in structure between canine teeth and incisor teeth.  
.....  
.....
14. Give any **one** way in which weeds affect crop production.  
.....
15. Why do earthworms come out of the soil after it has rained?  
.....
16. Which health condition in human beings is caused by eating undercooked meat?  
.....



The diagram below shows an experiment on how heat affects matter. Use it to answer question **17** and **18**.



17. Why does the metallic ball fail to pass through the ring as shown in **B**?

.....

.....

18. State the effect of heat on matter demonstrated by the experiment shown above.

.....

19. Give any **one** way of recycling wastes in the environment.

.....

20. State any **one** way in which termites benefit from soil.

.....

21. How are fangs useful to poisonous snakes?



.....

22. State any **one** sign of malnutrition in children.

.....

23. What piece of advice would you give to a crop farmer in order to avoid gap filling in the garden?

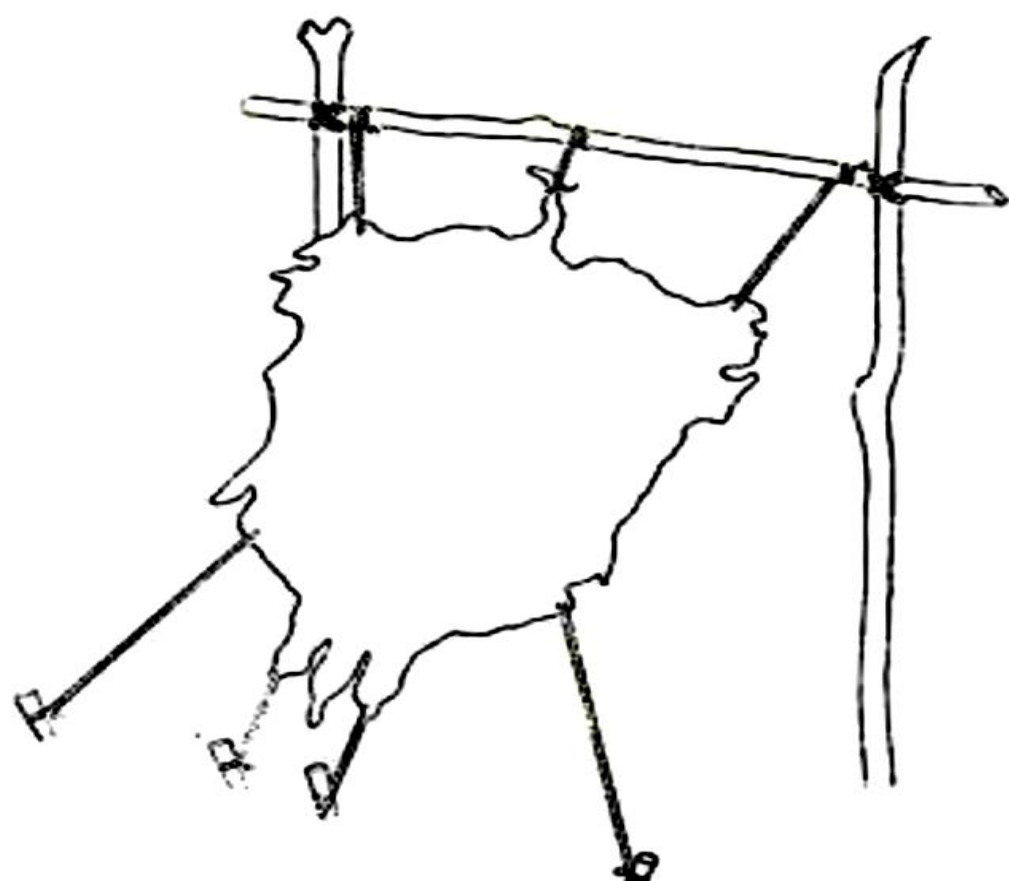
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24. Apart from filtering blood, give any **one** other function of the kidneys in the human body.

.....

The diagram below shows a method of preserving hides from cattle. Use it to answer questions **25** and **26**.



25. Name the method of preserving hides shown above.


.....

26. State any **one** advantage of preserving hides using the method above.

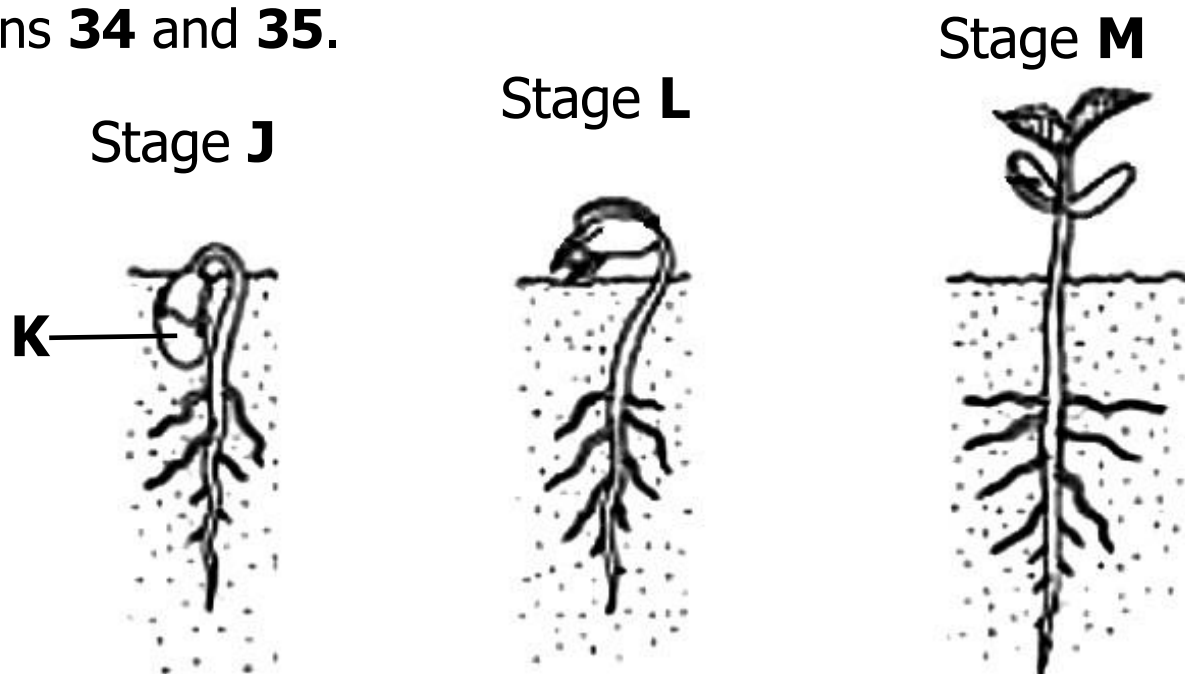
.....

27. Why do people sometime put ash on a burning charcoal stove during cooking?

.....

28. Why is it not advisable to burst blisters on the burnt or scalded part of the skin?
- .....
29. State any **one** way in which hairs in the nose are important during breathing.
- .....
30. Which property of magnets enables a doctor to remove iron bits from the eyes of a victim?
- .....
- 
31. Apart from movement, give any **one** other reason why bacteria are grouped among living things.
- .....
32. A cuboid has its length 8cm, width 2cm and height 4cm. How much space does the cuboid occupy?
- .....
33. How is local salt important to a crop farmer?
- .....
- .....

The diagram below shows stages of a germinating seed. Use it to answer questions **34** and **35**.



34. Name the part marked **K** on the seedling.

.....

35. Why is part marked **K** useless at stage **M**?

.....

36. In which way does painting protect metallic tools from rusting?

.....

37. Which system in human beings is responsible for transporting materials in the body?

.....

38. State any **one** way in which proteins are important to the elderly people.

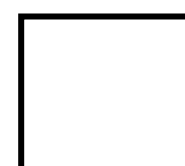
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39. Give any **one** way in which health education is important to people.

.....

40. Apart from fracture, give any **one** other disorder that affects the muscular skeletal system.

.....

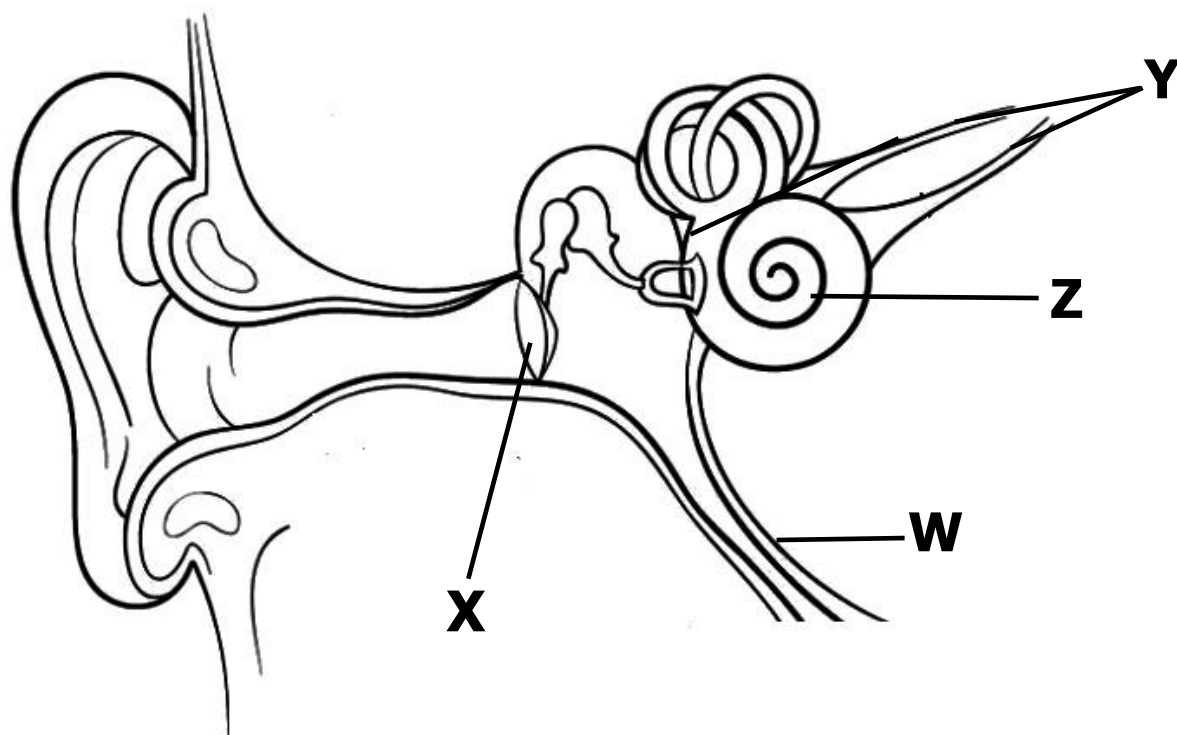


## SECTION B: 60 MARKS

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

41. a) Name the component of soil that;
- i) Binds soil particles together .....
  - ii) Improves soil aeration .....
- b) State any **two** advantages of crop rotation.
- i) .....
  - ii) .....

42. The diagram below shows the human ear. Study and use it to answer the questions that follow.



- a) Name the parts marked **X** and **Z**.
- i) **X** .....
  - ii) **Z** .....
- b) State the function of the part marked **Y** on the human ear.
- .....
- c) Which part equalizes air pressure inside and outside the ear?
- .....



43. a) Apart from an onion, name any **one** other example of a bulb.  
.....
- b) What type of root system does an onion plant develop?  
.....
- c) In which way are fleshy leaves important to an onion?  
.....
- d) State any **one** way in which an onion can be propagated.  
.....



44. In the table below, part **A** shows farm records and part **B** shows their importance.

Part A: farm records	Part B: importance
Breeding records	Show the amount of feeds given.
Production records	Show equipment used on the farm.
Inventory records	Show reproduction, birth or death rates.
Feeding records	Show yields of farm produce.

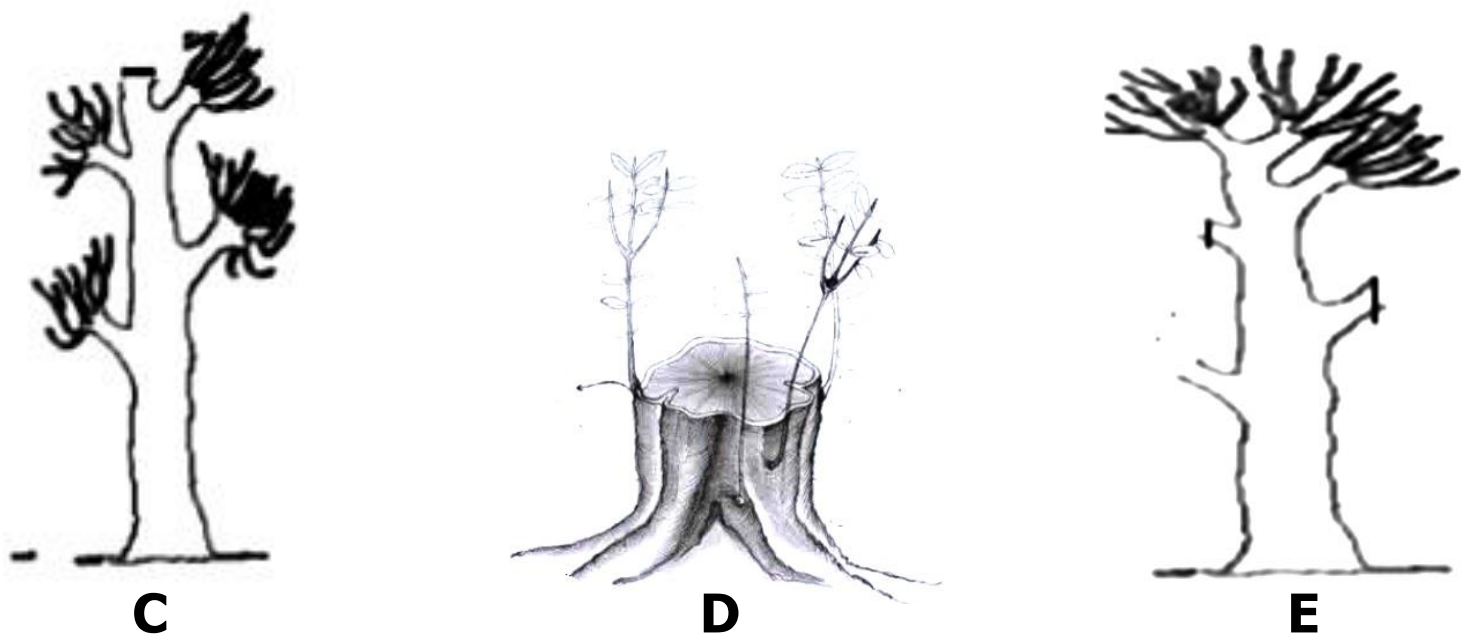
Use the importance in part B of the table above to match the farm records below.

- i) Breeding records .....
- ii) Production records .....
- iii) Inventory records .....
- iv) Feeding records .....

45. a) Give any **one** reason why an ostrich is unable to fly.
- .....
- b) Apart from an ostrich, write down any **one** other example of a flightless bird.
- .....
- c) In which **two** ways are birds different from fish?
- i) .....
- .....
- ii) .....
- .....
46. a) Name the physical process by which;
- i) Steam changes to water .....
- ii) Butter changes to cooking oil .....
- b) Give any **one** factor that affects the rate of evaporation.
- .....
- c) How does a blanket protect the person against coldness at night?
- .....
- .....



47. The diagram below shows different methods of harvesting trees. Study and use it to answer the questions that follow.

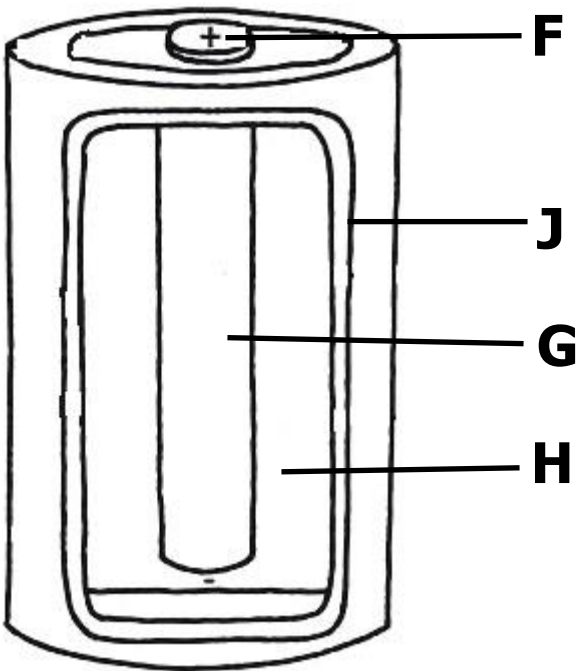


- a) Name the methods of harvesting trees marked **C** and **E**.
- i) **C** .....
- ii) **E** .....
- b) Which method is suitable for harvesting trees for timber?
- .....
- c) State any **one** advantage of harvesting trees using the method marked **C**.
- .....

48. a) What type of change is fermentation?
- .....
- b) Apart from alcohol, write down any **two** other substances obtained by fermentation.
- i) .....
- ii) .....
- c) Give any **one** way in which alcohol is used in hospitals.
- .....

49. a) Name the germ that causes gonorrhoea.
- .....
- b) State any **one** sign or symptom of gonorrhoea.
- .....
- c) Apart from gonorrhoea, give any **one** other example of a sexually transmitted disease that affects the reproductive system.
- .....
- d) How best can school children avoid the contraction of sexually transmitted diseases (STDs)?
- .....

50. The diagram below shows a dry cell. Study and use it to answer the questions that follow.



- a) Name the parts marked **G** and **J**.
- i) **G** .....
- ii) **J** .....
- b) State the function of the substance found in the part marked **H** in the dry cell above.
- .....

c) Which terminal does part marked **F** represent on the dry cell above?

.....

51. a) Write down any **two** chemicals used to treat water.

i) .....

ii) .....

b) State any **one** disadvantage of using chemicals to treat water.

.....

c) Give any **one** use of distilled water to people.

.....

52. The list below shows organisms in the environment. Study and use it to answer the questions that follow.

**mouse, bacteria, locust, grass**

a) Construct a food chain using the list of organisms above

.....

b) Identify the secondary consumer from the list above.

.....

c) What is the role of bacteria on the list above?

.....

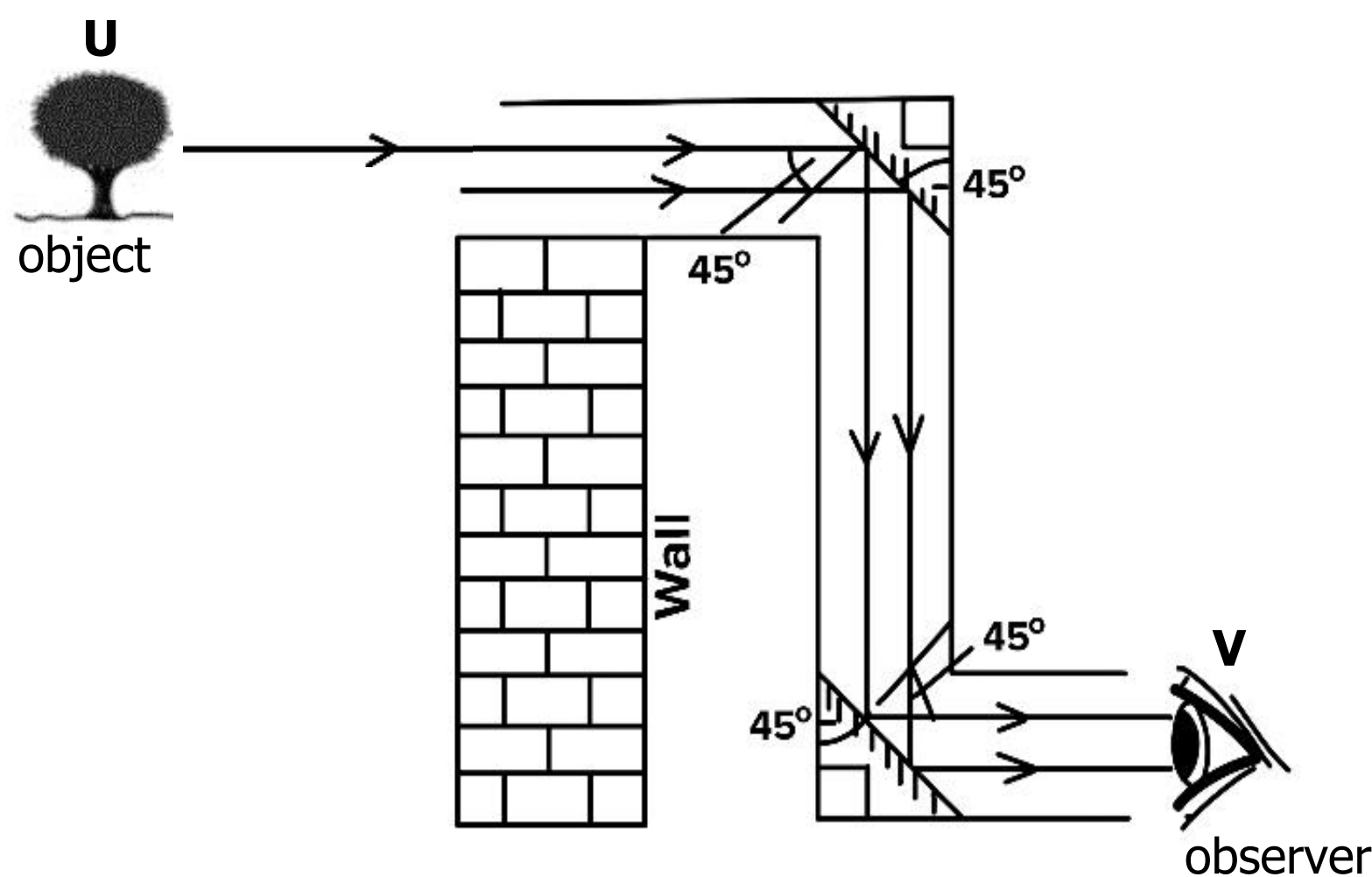
d) State what would happen to the locusts if grass was removed from the list.

.....



53. a) Apart from killing germs in food, give any **one** other function of hydrochloric acid during digestion.
- .....
- b) Which structures in the ileum make it suitable for food absorption?
- .....
- c) Mention any **one** role played by enzymes during digestion of food.
- .....
- d) State any **one** habit that can help to prevent the disorders of the digestive system.
- .....
54. a) Write down any **two** activities done by Young Farmers Clubs in a school.
- i) .....
- ii) .....
- b) State any **two** ways in which Young Farmers Clubs are important in schools.
- i) .....
- ii) .....

55. The diagram below shows an optical instrument. Study and use it to answer the questions that follow.



- a) Name the optical instrument shown above.  
.....
- b) On which principle does the optical instrument above work?  
.....
- c) How is the observer at point **V** able to see the object at point **U**?  
.....  
.....
- d) State any **one** way in which the optical instrument above is useful to people.  
.....



