



UGANDA NATIONAL EXAMINATIONS BOARD
PRIMARY LEAVING EXAMINATIONS

2023

INTEGRATED SCIENCE

Time allowed: 2 hours 15 minutes

Index No.

Random No.						Personal No		

Candidate's Name.

Candidate's Signature.

School Random No.

District ID.

Read the following instructions carefully:

1. This paper has two sections: **A** and **B**. Section **A** has **40** questions and Section **B** has **15** questions. The paper has **12 printed pages altogether**.
2. Answer **all** questions. **All** answers to both sections **A** and **B** must be written in the spaces provided.
3. **All** answers must be written using a **blue** or **black** ball point pen or ink. Any work written in pencil other than graphs and diagrams will **not** be marked.
4. Unnecessary **changes** in your work may lead to **loss** of marks
5. Any handwriting that **cannot** easily be read may lead to **loss** of marks
6. Do **not** fill anything in the table indicated:
"For Examiners' Use Only" and the 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		

Turn over

SECTION A: 40 MARKS

Answer ***all*** questions in this section

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

1. Name the main natural source of water on earth.

.....

2. Give any **one** importance of keeping our bodies clean.

.....

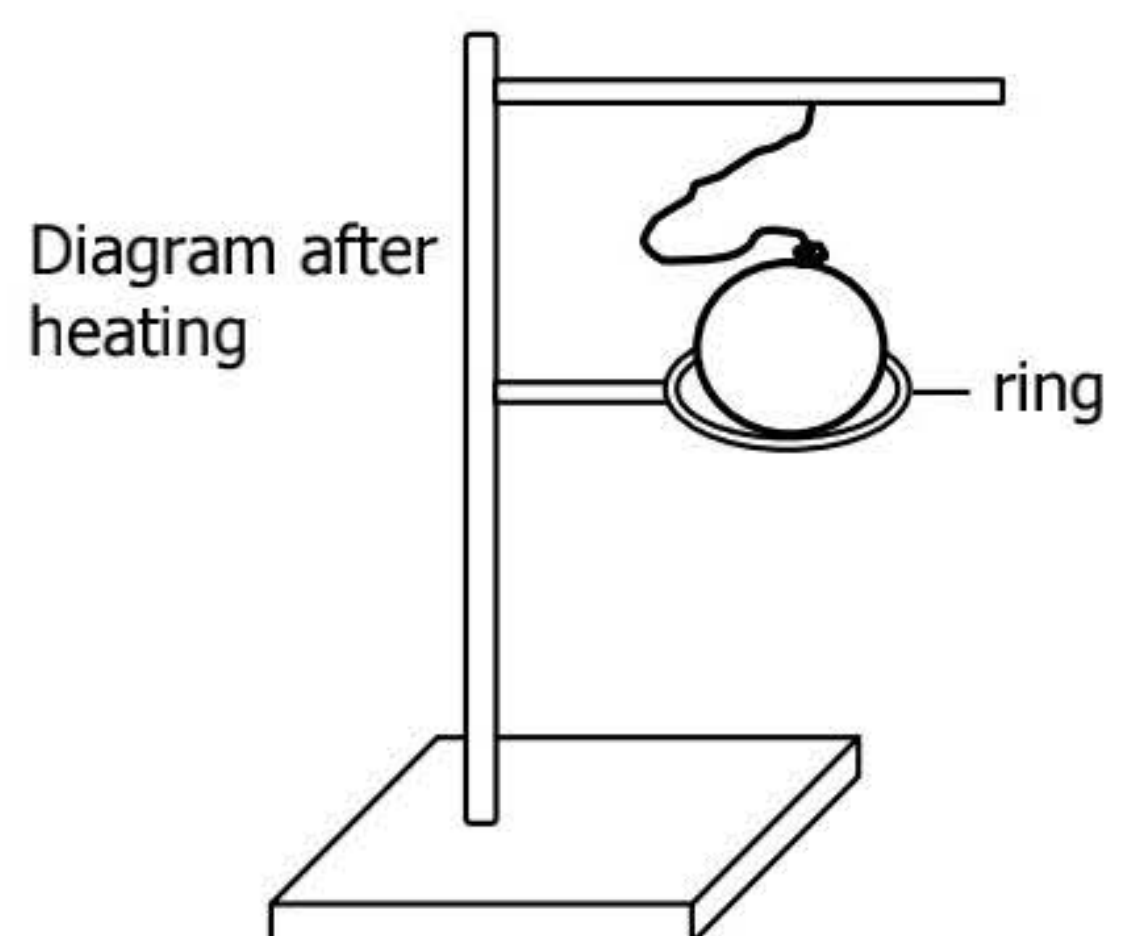
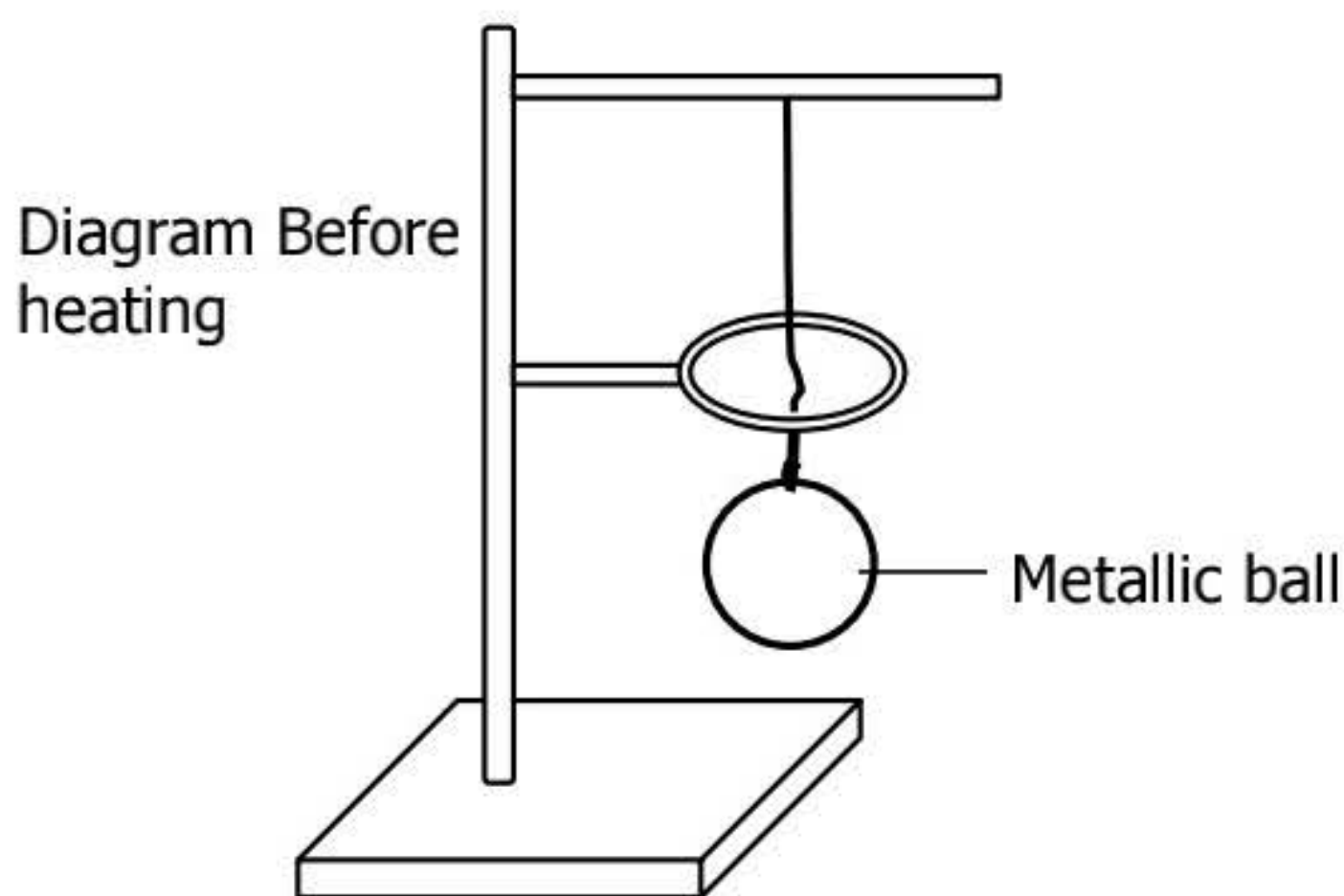
3. Which part of a maize grain stores food?

.....

4. Name the sensory organ for hearing in humans?

.....

The experiment below was carried out to investigate certain effect of heat on metals. Study and use it to answer questions **5** and **6**.



5. What does the above experiment prove about metals?

.....

6. Why was the metallic ball not able to pass through the ring immediately after heating it?

.....

7. Give any **one** sign of coccidiosis in rabbits.

.....

8. In which way does painting protect iron sheets from rusting?

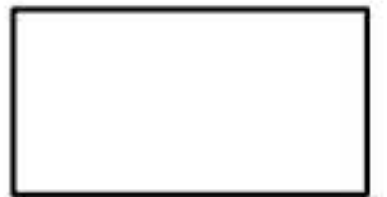
.....

9. Mention any **one** community health problem associated with high pollution.

.....

10. State any **one** way through which soil loses its fertility.

.....



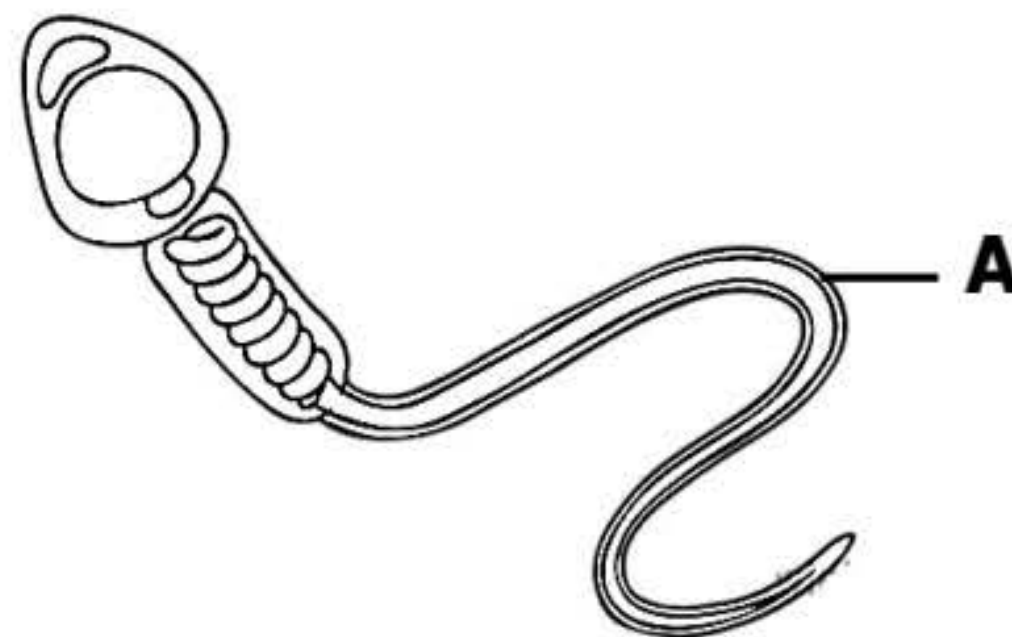
11. What causes night blindness?

.....

12. Name the fungus used in making local beer.

.....

The diagram below shows a male reproductive cell in humans. Use it to answer the questions **13** and **14**.



13. Identify the reproductive cell shown above.

.....

14. State the function of part **A** to the above reproductive cell.

.....

15. What determines sinking and floating of objects in water?

.....

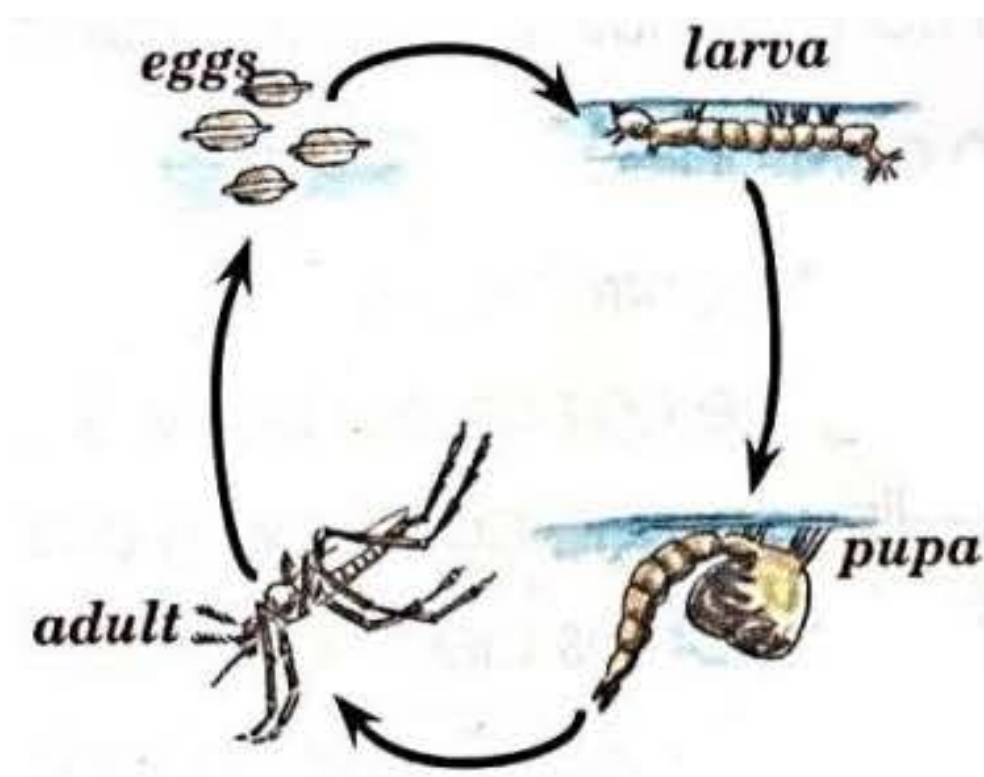
16. By what physical process does vapour change to liquid?

.....

17. How are the ossicles important in the process of hearing?

18. To which group of flowering plants do beans, peas and groundnuts belong?

The diagram below shows the life cycle of a type of a mosquito. Study and use it answer questions **18** and **19**.



19. Name the type of mosquito whose life cycle is shown above.

20. Which disease is transmitted by the above mosquito to humans?

21. Give the role of water added into the digester when making bio gas.

22. Why does blood go to lungs during blood circulation?

23. State any **one** advantage of colostrum to a newly born calf.

24. Name any **one** class of cold blooded vertebrates.

25. Mention any **one** disease of the human teeth?

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

.....

27. Write any **one** advantage of natural brooding in keeping poultry.

.....

28. In which **one** way can people use wind as a resource?

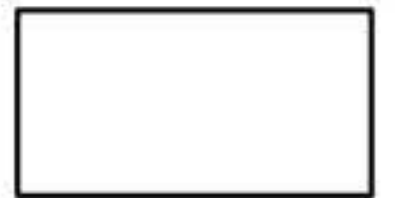
.....

29. Give any **one** effect of physical changes to the environment.

.....

30. What is the danger of poor body posture to the human skeleton?

.....



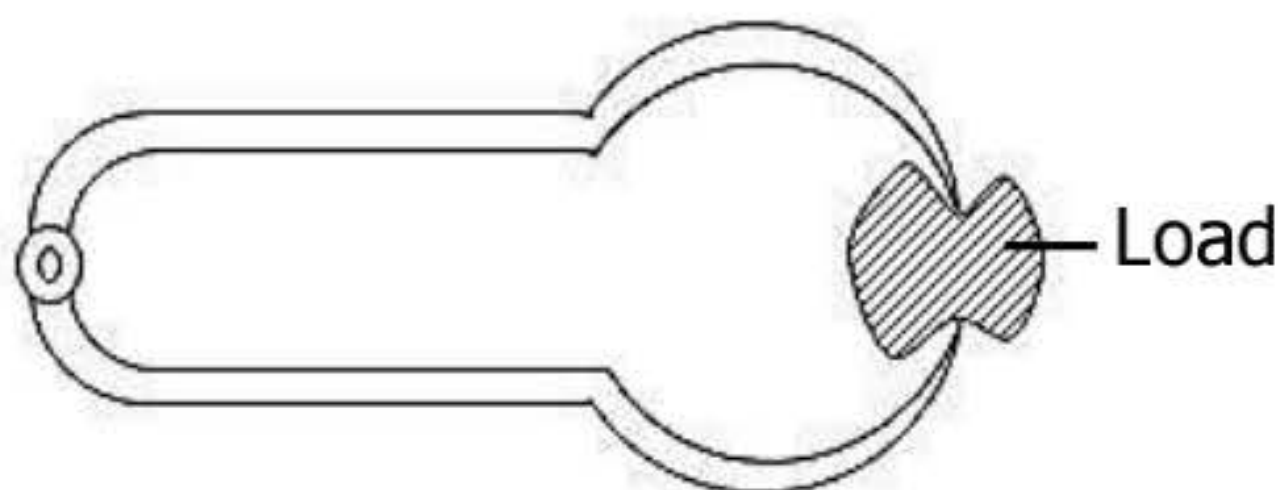
31. State any **one** disadvantage of using traditional beehives in bee keeping?

.....

32. Mention any **one** way of promoting food hygiene.

.....

The diagram below is of an example of lever machine in use. Use it to answer the questions **33** and **34**.



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

.....

34. Using arrows and letter **E**. indicate the position of the effort used to overcome the load on the diagram above.

35. Give any **one** cause of truancy among school children.
.....
36. Mention any **one** example of a stem tuber crop grown in Uganda.
.....
37. By what process is humus formed?
.....
38. Why should plenty of drinks be given to fever victim when administering First Aid?
.....
39. Which digestive disorder is caused by improper chewing of food?
.....
40. State any **one** advantage of using a single fixed pulley over a single movable pulley.
.....



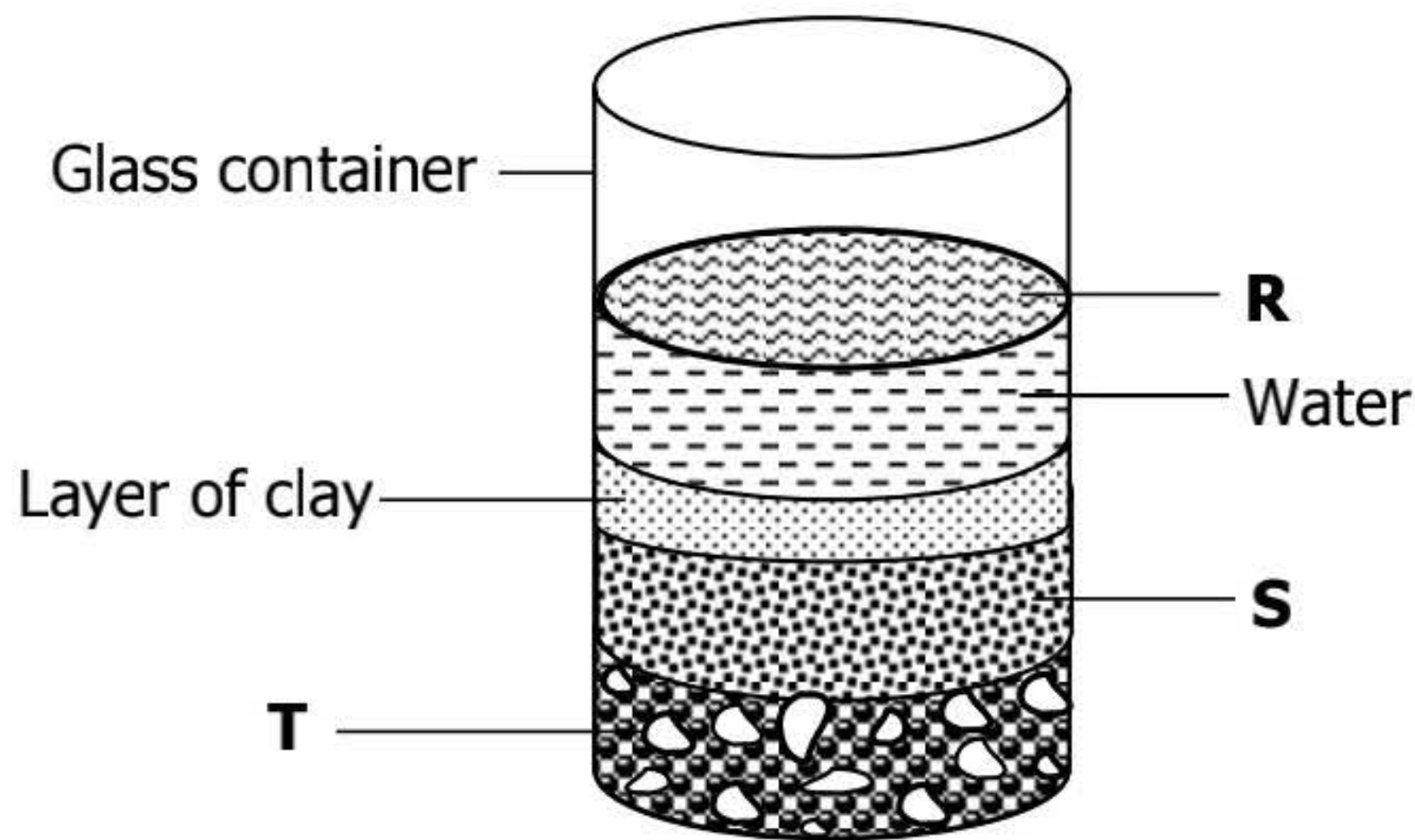
SECTION B: 60 MARKS

*Answer **all** questions in this section*

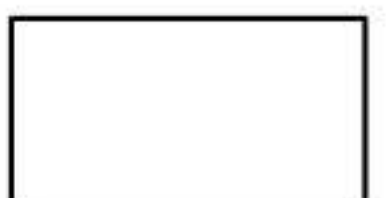
*Questions **41** to **55** carry four marks each*

41. a) Name any **one** example;
- i) dairy cattle
 - ii) beef cattle
- b) State any **two** physical differences between dairy cattle and beef cattle.
- i)
 - ii)

42. The diagram below shows a glass container into which a soil sample was placed and thoroughly mixed with water. The components settled as shown. Study and use it to answer questions that follow.



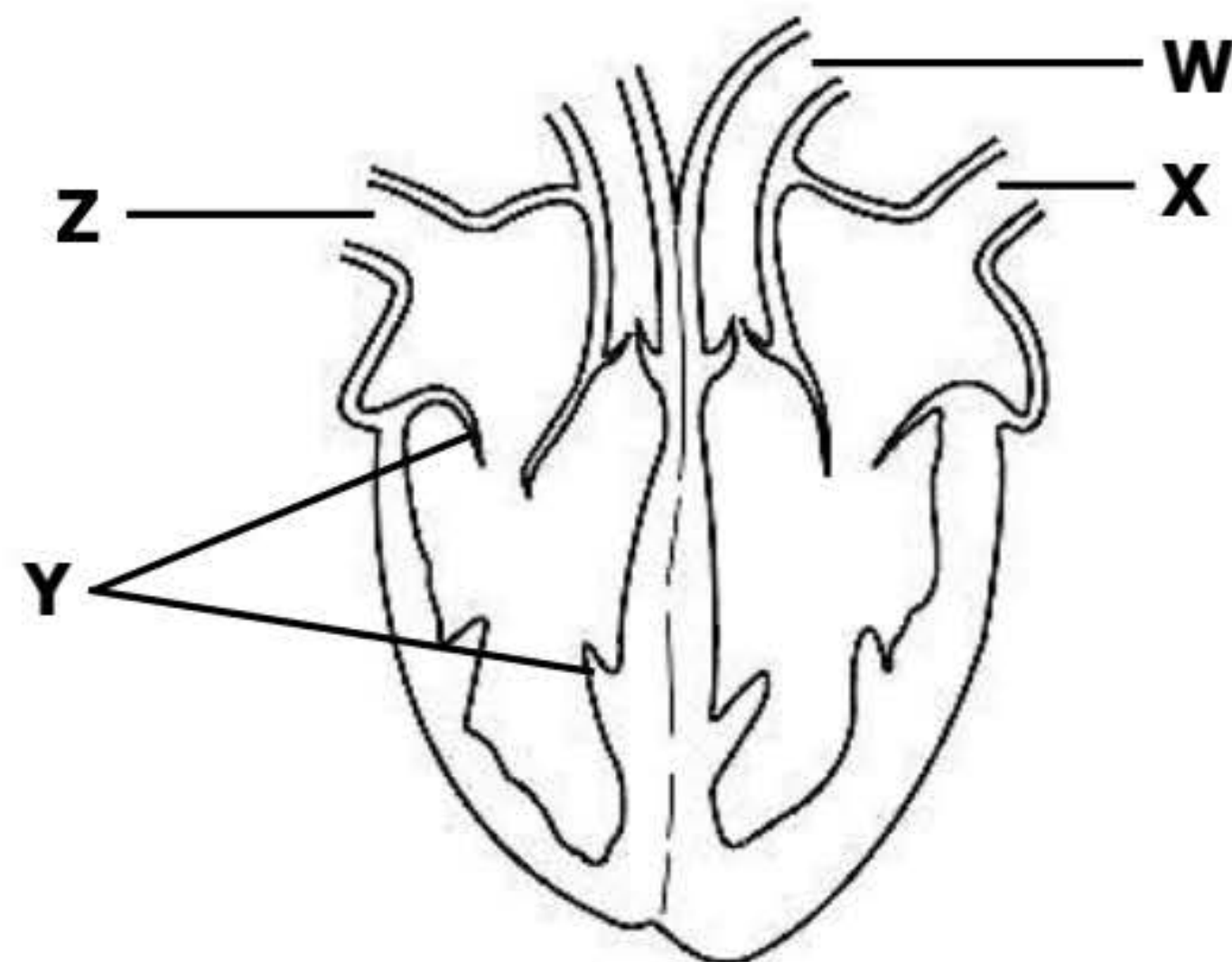
- a) Name the part labeled **S**.
-
- b) Give any **two** ways in which soil component **R** is useful in plant growth.
- i)
- ii)
- c) Which process forms soil component **T**?
-
43. a) Write any **two** causes of short circuits.
- i)
- ii)
- b) In which **one** way are short circuits dangerous in our homes?
-
- c) Give any **one** way of safeguarding against the dangers of short circuits.
-



44. a) Name any **one** agent of pollination of flowers.
.....
- b) Why is self-pollination not common in maize plants?
.....
- c) State any **two** ways in which wind pollinated flowers are different from insect pollinated flowers.
- i)
-
- ii)
-
45. a) List any **two** examples of water pollutants.
- i)
- ii)
- b) Mention any **one** effect of water pollution to human health.
.....
- c) Give any **one** way of protecting community water sources from pollution.
.....
46. a) Write any **two** principles of Primary Health Care (PHC).
- i)
- ii)
- b) Give any **two** things a family can do to promote Primary Health Care (PHC).
- i)
- ii)



47. The diagram below shows the cross section of a human heart. Study carefully and use it to answer the questions that follow.



- a) Name the blood vessel labeled **W**.

.....

- b) State the function of the structures labeled **Y**.

.....

- c) Give the difference in blood carried by blood vessel **X** and blood vessel **Z**.

.....

.....

- d) On the diagram above, label the septum.

48. a) Why doesn't sound travel through vacuum?

.....

- b) Apart from nature of the medium, write any **two** other factors which affect the speed of sound?

i)

ii)

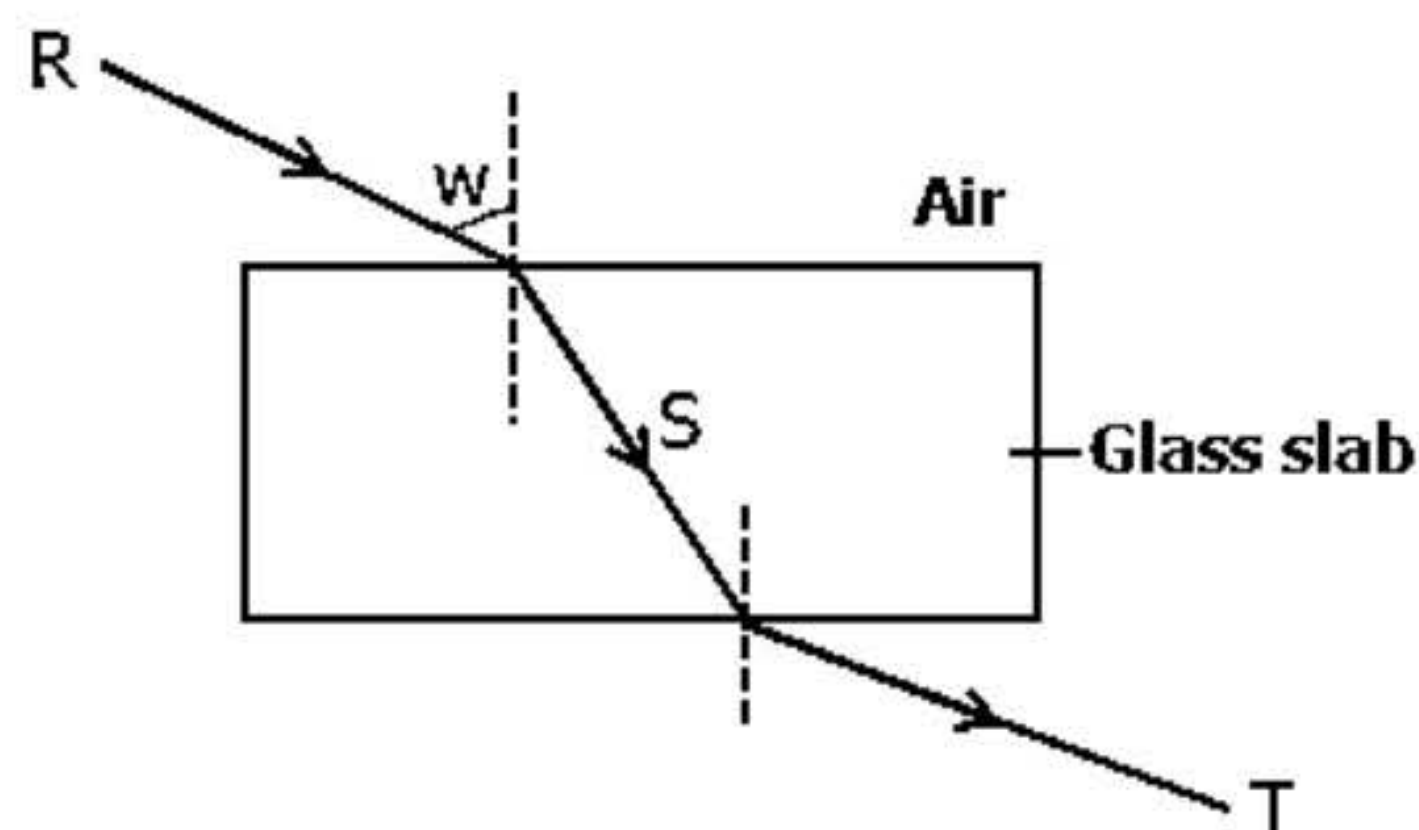
- c) Write any **one** method of storing sound.

.....

49. a) State the importance of each of the following records in a school woodlot;
- Health records.
 - Breeding records.
- b) Mention any **two** other types of records that can be kept in a school woodlot.
-
 -



50. a) Write any **one** cause of food poisoning in our homes.
-
- b) List any **two** signs of food poisoning.
-
 -
- c) Give any **one** way of safeguarding against food poisoning in our homes.
-
51. The diagram below shows refraction of light through a rectangular glass slab. Use it to answer questions that follow.



- a) Name the ray of light **R** and **T**.
- R**.....
 - S**.....

b) Name the angle marked **w**.

.....

c) Why does ray of light **T** bend away from the normal?

.....

52. a) Write a reason why piles of tree logs for making charcoal are;

i) Covered with soil

ii) Burnt under limited oxygen supply

b) Give any **two** ways in which charcoal burning affects the environment.

i)

ii)



53. In the table below, part **A** shows garden tools and part **B** shows their uses in the wrong order.

Part A: Garden tools	Part B: Uses of the garden tools
Wheelbarrow	For cutting excess leaves/branches on crops
Garden fork	For transplanting seedlings
Trowel	For transporting harvested crops
Secateurs pruner	For turning manure in a compost pit

For each garden tool below, select the correct use from list **B** and write in the space provided below.

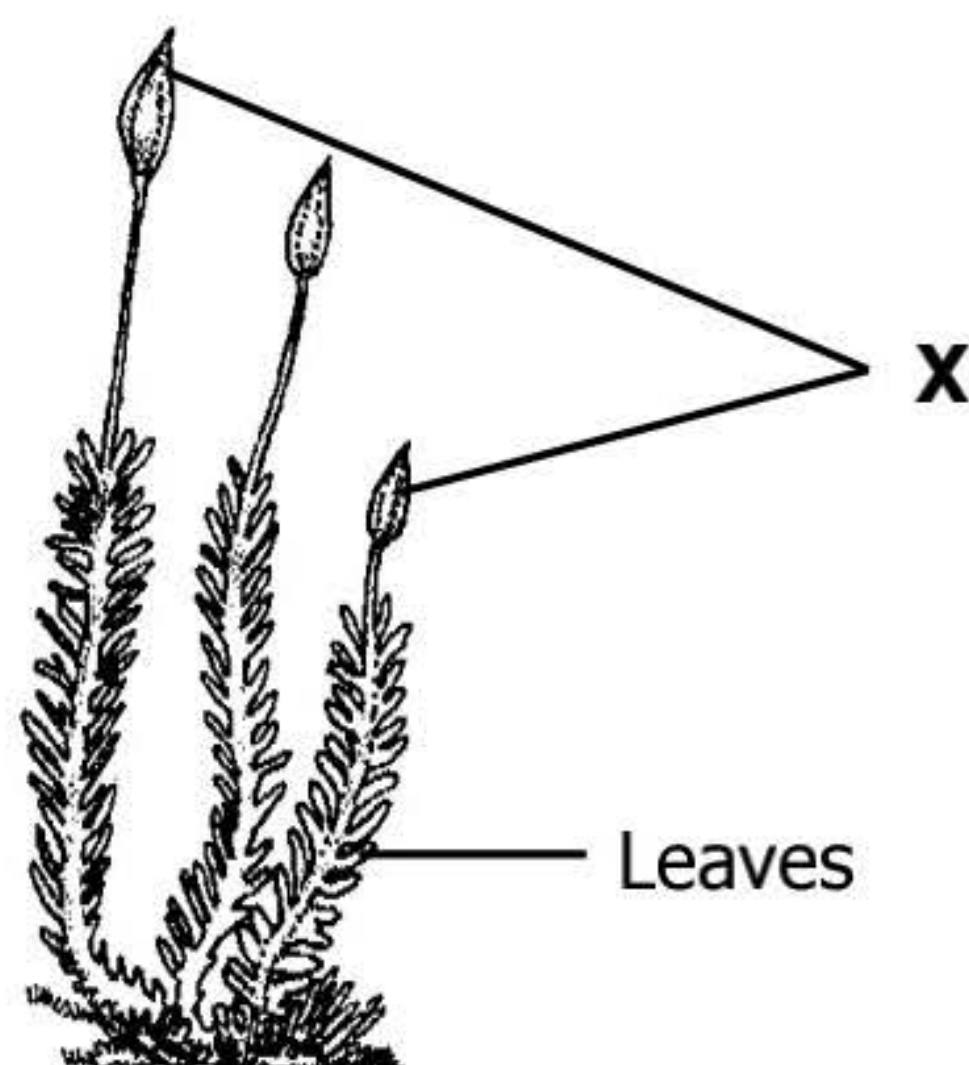
a) Wheelbarrow.

b) Garden fork.

c) Trowel.

d) Secateurs pruner.

54. a) State any **one** way through which a child can acquire;
- i) Natural immunity
- ii) Artificial immunity
- b) Give any **one** importance of immunity in the body.
-
- c) In which **one** way is a child health card important to the child's parents?
-
55. The diagram below shows a non-flowering plant. Study carefully and use it to answer the questions that follow.



- a) Name the non-flowering plant shown above.
-
- b) How is part labeled **X** useful on the above non-flowering plant?
-
- c) Name any **two** other non-flowering plants which reproduce in the same as the one shown in the diagram above.
- i)
- ii)



THE END