

SURE KEY EXAMINATIONS BOARD
PRIMARY LEAVING EXAMINATION
MARCH 2021
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. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has two sections: **A** and **B**. Section **A** has **40** questions and Section **B** has **15** questions. The paper has **16 printed pages** altogether.
3. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil will **not** be marked.
5. Unnecessary **changes** in your work and 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 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 for sensing sight.

.....

2. Why is carbon dioxide gas sealed in soda bottles?

.....

.....

The diagram below is of a head of a bird. Use it to answer question 3.



3. How do birds with such a beak help to purify our environment?

.....

4. Write down **one** block in a village food path.

.....

5. Why are we advised to wash hands after visiting a latrine?

.....

6. State **one** characteristic of images formed by plane mirrors.

.....

7. Why is a mosquito regarded to as a disease vector?

.....

8. State any **one** way people can control the spread of water borne diseases in their communities.

.....

9. Name the enzyme that breaks down proteins into amino acid.

.....

10. A winding road is an inclined plane, how does it simplify work?

.....

.....



11. Give **one** reason why adolescents are advised to shave hair under their armpits.

.....

12. Name the method used in separating water from alcohol.

.....

13. What type of reflection enables drivers to see what is behind their vehicles?

.....

14. What is the function of a chimney on a kitchen?

.....

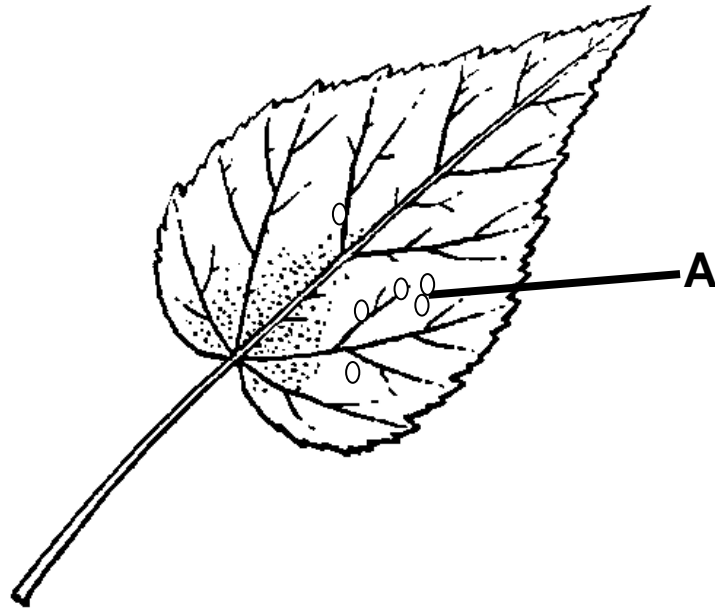
15. How does the mycobacterium that causes tuberculosis reproduce?

.....

16. Give **one** disadvantage of bottle feeding to a baby.

.....
.....

Below is a diagram of a simple leaf .Use it to answer questions **17 and 18.**



17. Name structures marked **A** in the leaf.

.....

18. State the importance of structures **A** to the leaf.

.....

19. Why is the salivary amylase inactive when it reaches in the stomach?

.....
.....

20. How does a person get affected by ring worms?

.....



21. How do banana plants multiply?

.....

22. State the function of a vacuum seal on a thermos flask.

.....

23. Where in the human body are sperms produced?

.....

24. Name the type of joint that allows body movement in all directions.

.....

25. State the advantage of using a thermo gun over a clinical thermometer in measuring the body temperature of a COVID 19 suspected patient.

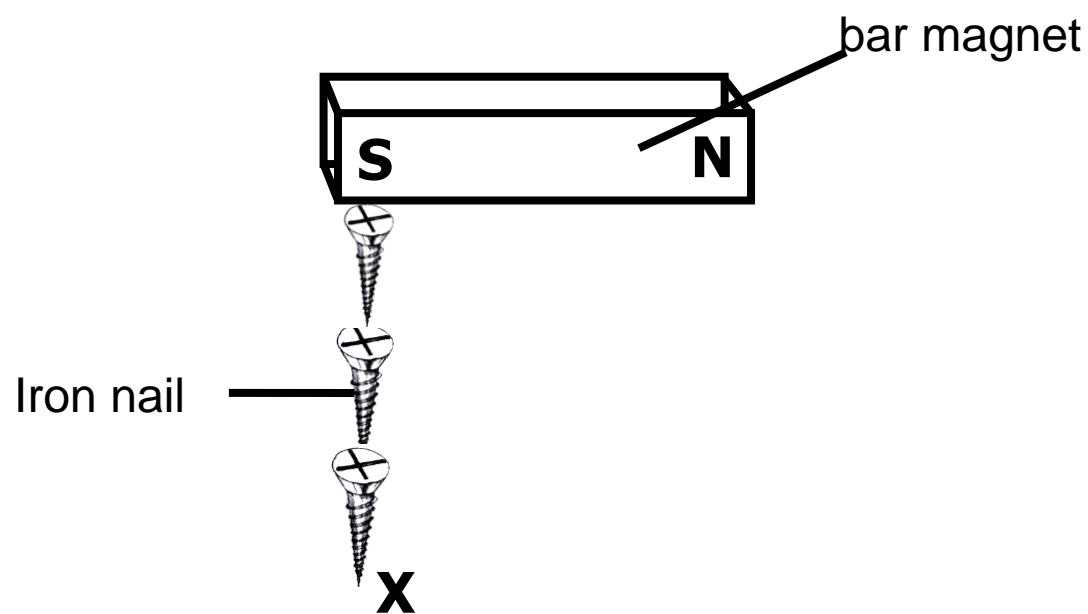
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26. Give the use of a strip cup to cattle keepers.

.....

The diagram below shows a method of making magnets. Use it to answer questions **27** and **28**.



27. Which method of making magnets is shown above?

.....

28. Name the pole found at **X**.

.....

29. Give **one** example of a solitary insect.

.....

30. How are earthworms useful to crop farmers?

.....



31. What collective name is given to the plumule and radical of a germinating seed?

.....

32. Why is lightning seen before thunder is heard?

.....

33. Which germ causes coccidiosis in birds?

.....

34. State the function of the eardrum during hearing.

.....

35. Why is it advisable to cover your mouth with a handkerchief when sneezing?

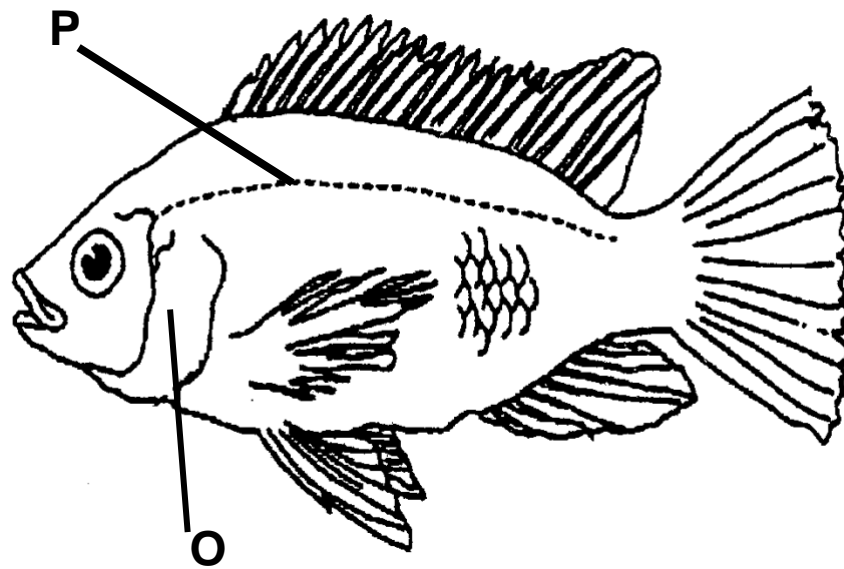
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36. Why does a coin in a jug of water seem to appear near to the water surface yet it is at the bottom of the jug?

.....

.....

The diagram below is of a fish. Use it to answer questions **35** and 36.



37. State the importance of part labeled **P** to a fish.

.....

38. Name the organ protected by part **O** in the fish.

.....

39. Give **one** reason why a chameleon changes to green when it enters a green bush.

.....

40. Why does a plastic bottle with water float when thrown in a water source?

.....

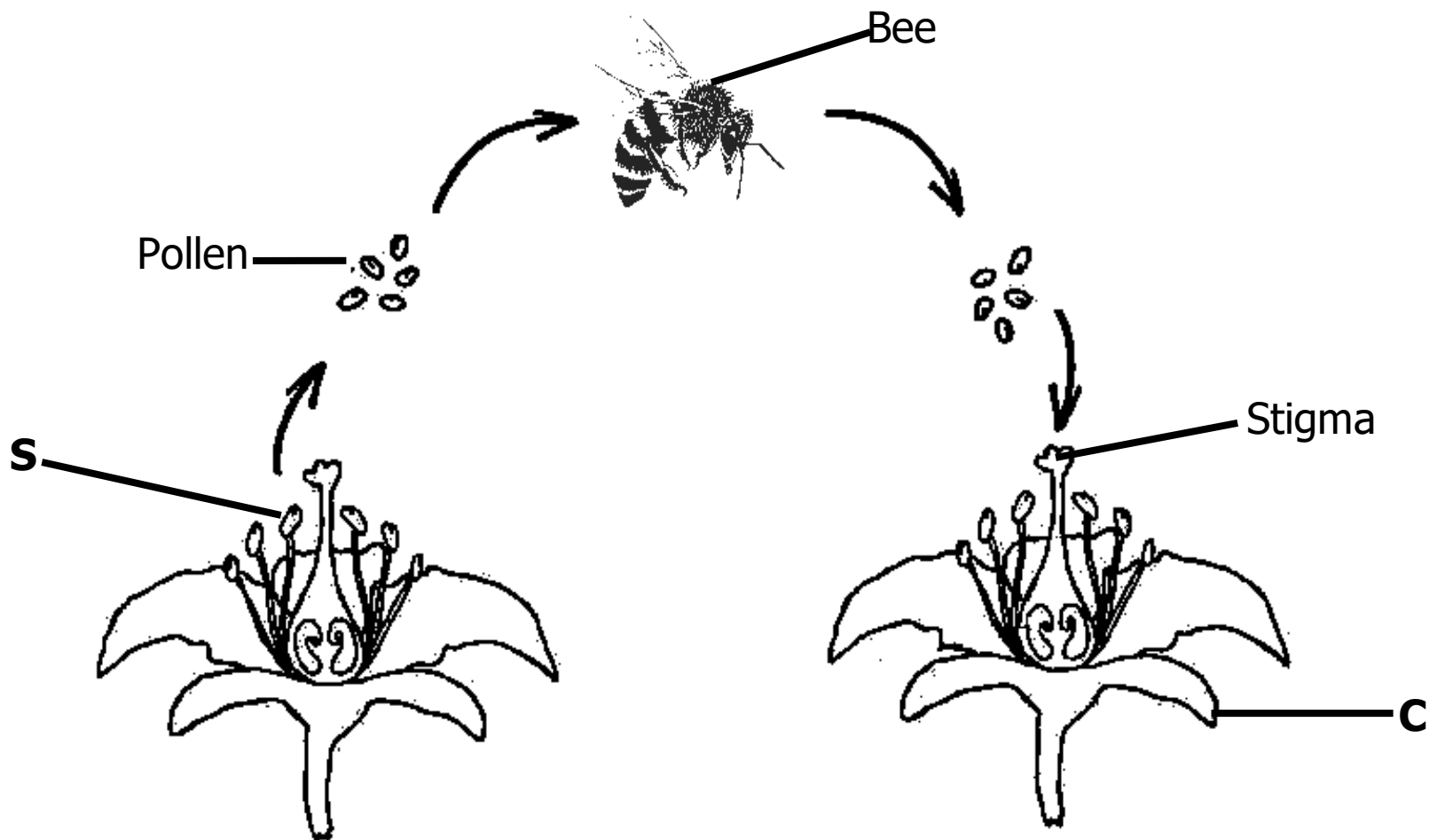
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SECTION B: 60 MARKS

Questions 41 to 55 carry four marks each.

41. The diagram below shows a type of pollination in flowers. Study it and answer the questions that follow.



(a) Name the parts of the flower marked with letters,

C

S

(b) What type of pollination is shown above?

.....

(c) What scientific term is given to the bee during the process of pollination?

.....

42. (a) Name the type of current electricity produced by the following;
- (i) a generator
 - (ii) a dry cell
- (b) Write down any **one** local method of producing electricity at home.
-
- (d) State **one** reason why solar electricity is not commonly found in most homes.
-
-

43. (a) How does heat travel through the following;
- (i) solids
 - (ii) gases
- (b) State the effect of heat on ice cubes when put on a burning charcoal stove.
-
- (c) What happens to rails of railway lines on hot days?
-



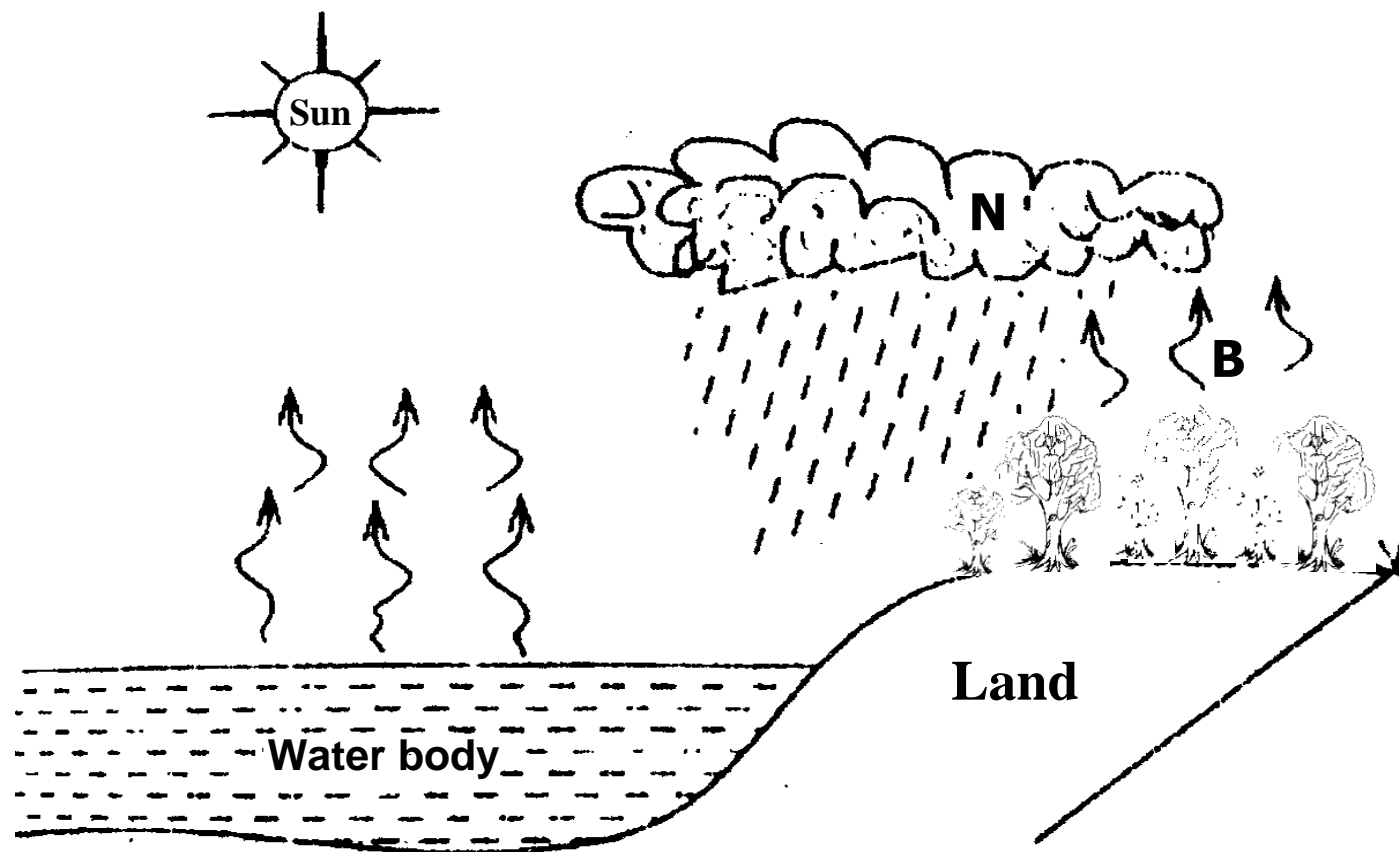
44. (a) Write down any **two** machines used in measuring the weight and mass of different objects.
- (i)
 - (ii)

(b) Give **two** ways in which weight and mass differ.

(i)

(ii)

45. The diagram below shows a rain cycle. Study and use it to answer the questions that follow.



(a) What type of rainfall is formed through the above rain cycle?

.....

(b) State the process taking place at **B**.

.....

(c) How are clouds marked **N** important to crop farmers?

.....

.....

(d) What causes vapour to rise in the water body above?

.....

46. (a) State **one** danger of sitting near a person suspected to be with signs and symptoms of COVID 19.

.....

(b) Name any **one** soft body part where the Corona virus can easily enter into your body.

.....

(c) State any **two** ways in which the spread of the Corona virus can be controlled.

(i)

(ii)



47. Study the table below carefully and fill the blank spaces correctly.

AGE	VACCINE	METHOD OF IMMUNIZATION
(i) At birth	Injection on right upper arm.
(ii) 6 weeks	DPT vaccine
(ii)	Polio vaccine	Drops in the mouth.
(ii) 36 weeks	Injection on left upper arm.

48. (a) Give the term that describes a group of cattle having similar characteristics.

.....

(b) State any **two** characteristics that determine a breed of cattle.

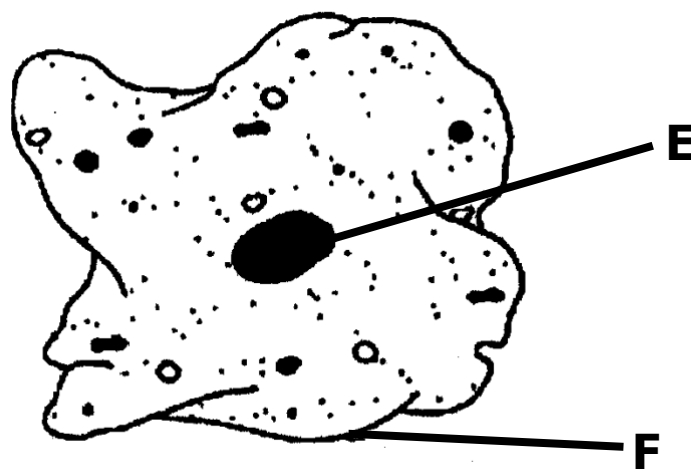
(i)

(ii)

(a) Why do most farmers today prefer keeping the Ayshire exotic breed of cattle over other breeds?

.....

49. The diagram below is of an amoeba. Use it to answer the questions below.



(a) Name parts labeled **F**.

.....

(b) How is part **E** important to the above organism?

.....

(c) State **one** danger of the amoeba to human health.

.....

(c) How does an amoeba reproduce?

.....



50. (a) Write down any **two** natural calamities that occur in our environment.
- (i)
- (ii)
- (b) State any **one** effect of natural calamities to people.
-
- (c) Give **one** way people can control the effects of natural calamities in their environment.
-

51. Study the groups of animals below carefully and use them to answer the questions that follow.

A	B	C
Salamander	Chameleon	Snail
Toad	Tortoise	Octopus
Newt	Crocodile	Oyster
Frog	Lizard	Slug

- (a) State **one** similarity between animals in group **A** and those in **B**.
-
- (b) What general name is given to animals in group **C**?
-
- (c) Name the structure animals in group **C** use for sensing.
-
- (d) What important role is played by animals in group **A** in controlling the spread of diseases in our environment?
-

52. Victoria stepped on a burning charcoal by accident and immediately removed her foot.

(a) What name is given to the injury Victoria got?

.....

(b) Which part of the body sensed this type of injury?

.....

(c) Name the degree of the above injury where Victoria can get blisters.

.....

(d) What first Aid would you give to Victoria?

.....



53. A doctor prescribed the following kinds of food(s) for patients with different deficiency diseases to feed on. Use them to answer the questions that follow.

- | | | | |
|-------------------|-----------------------|----------------|-------------|
| Mangoes | sweet potatoes | Beans | Rice |
| Green dodo | cabbages | oranges | Eggs |

Which kind of food(s) from the above list would you advise a patient suffering from the following deficiency disease to feed on;

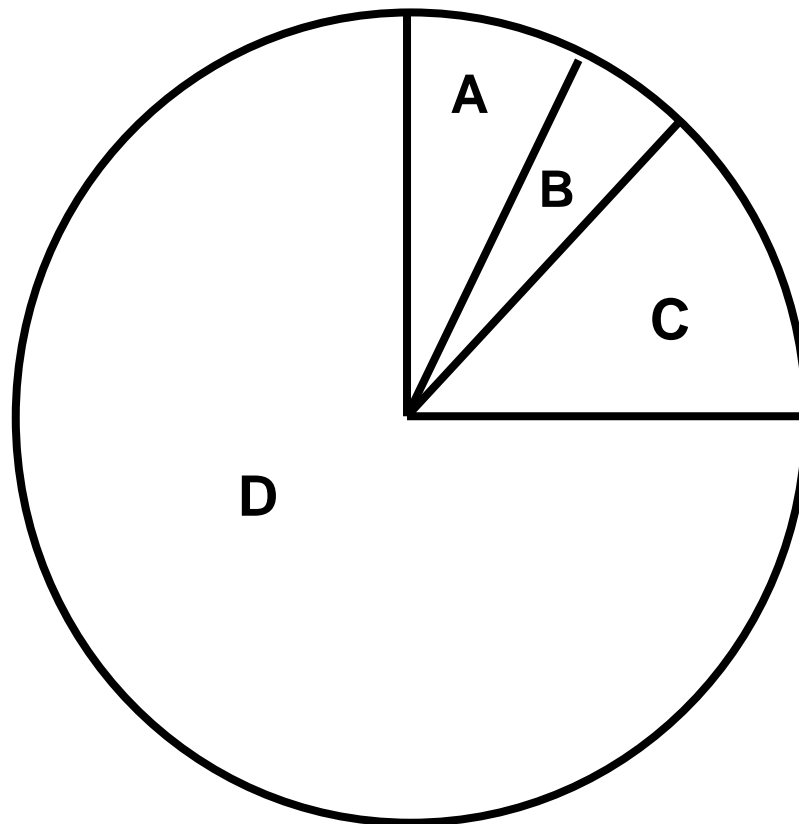
(i) anemia

(ii) kwashiorkor

(iii) scurvy

(iv) marasmus

54. The pie-chart below shows proportions of air. They are labeled **A**, **B**, **C** and **D**. Use it to answer the questions that follow.



(a) Which letter in the pie chart represents the gas which supports both breathing and burning?

.....

(b) What is the use of the gas labeled **A**?

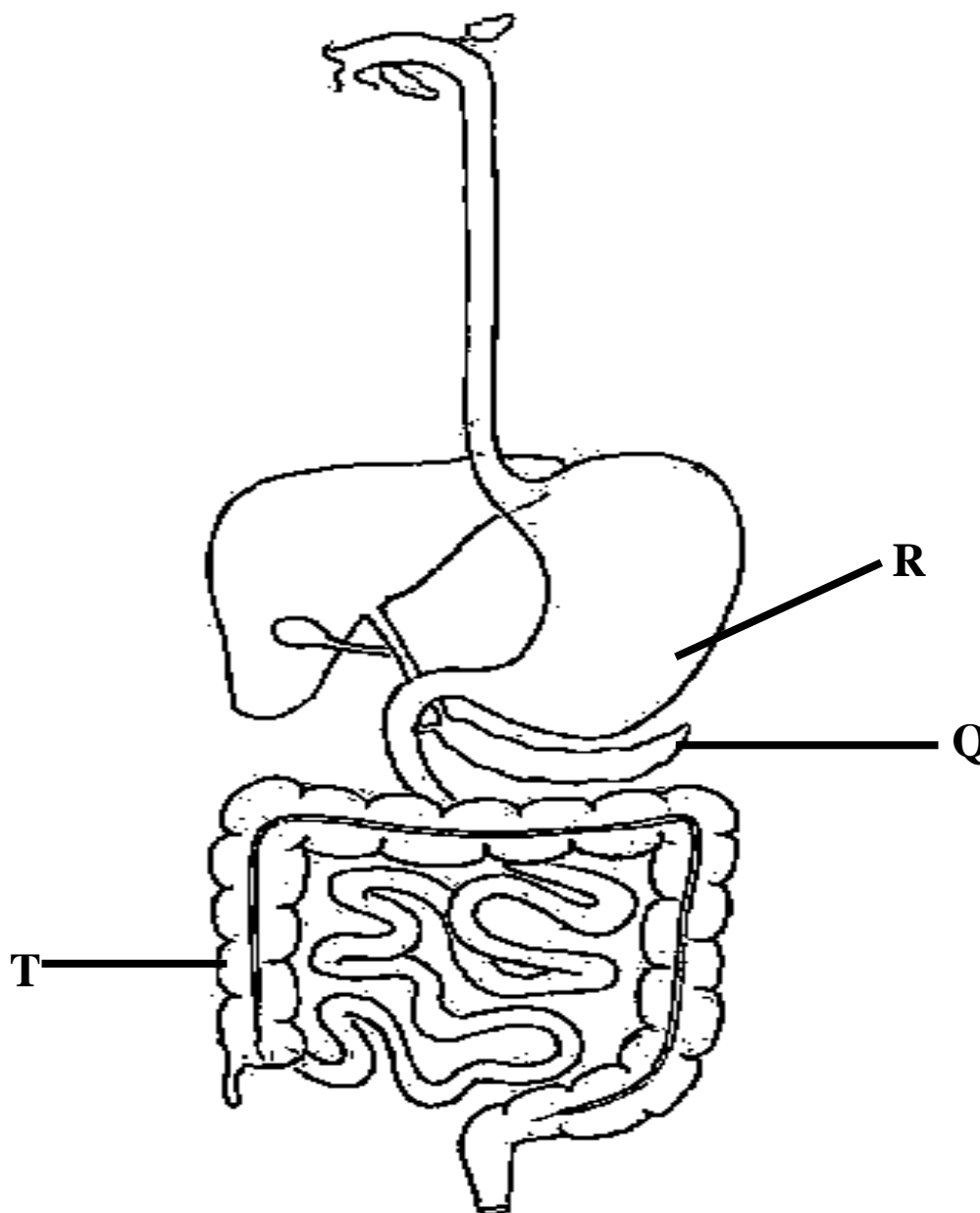
.....

(c) Name the gas labeled with letter,

(i) **D**:

(ii) **A**:

55. Below is a diagram of the digestive system. Study it and answer the questions that follow.



(a) Name part labeled **R**.

.....

(b) Which digestive juice is produced in part **Q**?

.....

(c) What type of digestion occurs in part **R** during churning of food?

.....

(d) Apart from part **T**, in which other part of the alimentary canal can the absorption of water take place ?

.....

