



SUREKEY EXAMINATIONS BOARD

PRE PLE MAGIC SERIES

2022

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Index No.						Personal No.		

Candidate's Name:

Candidate'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 **16** 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 parasite that spreads sleeping sickness.

.....

2. Which type of soil holds water for a long time?

.....

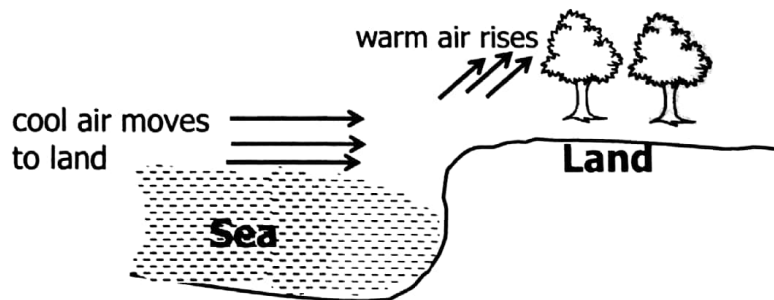
3. Give any **one** form of energy that is produced during the process of welding metals.

.....

4. How are teeth important in the process of digestion?

.....

The diagram below shows a type of breeze. Use it to answer questions **5** and **6**.



5. Identify the type of breeze shown in the diagram above.

.....

6. Which method of heat transfer leads to the formation of the above type of breeze?

.....

7. Name the blood vessel that transports oxygenated blood from the lungs to the heart.

.....

8. Name the disease which makes a person to pass out watery stool with blood.

.....

9. State the property of air that enables a person to pump air in the tube of a bicycle wheel.

.....

10. Give any **one** practice that helps to improve soil fertility in the garden.

.....



11. State any **one** way in which sweating is important to the human body.

.....

12. Apart from the liver, mention any **one** other body organ that is greatly damaged by excessive drinking of alcohol.

.....

13. Name the class of food used when steaming up pregnant animals on the farm.

.....

14. Give any **one** way in which the skeleton supports the body of an organism.

.....

The diagram below shows an equipment used to put out petrol fire. Use it to answer questions **15** and **16**.



15. Identify the equipment used to put out petrol fire shown in the diagram above.

.....

16. Why is the above equipment usually painted with bright colours?

.....

17. How are bats different from a duck billed platypus in the way they reproduce?

.....

.....

18. Give any **one** way in which the spread of leprosy can be controlled.

.....

19. Which condition in human beings is caused due to lack of oxygen supply to the brain?

.....

20. State any **one** advantage of immunizing children.

.....



21. Why is a snail regarded as a non-vertebrate?

.....

22. State any **one** cause of teenage pregnancy in adolescent girls.

.....

23. Give any **one** way in which people use energy resource from the sun.

.....

24. How does the human skin help to prevent rickets among children?

.....

.....

25. What happens to volume when water changes to ice in a refrigerator?

.....

26. Give any **one** way in which plants benefit from animals.

.....

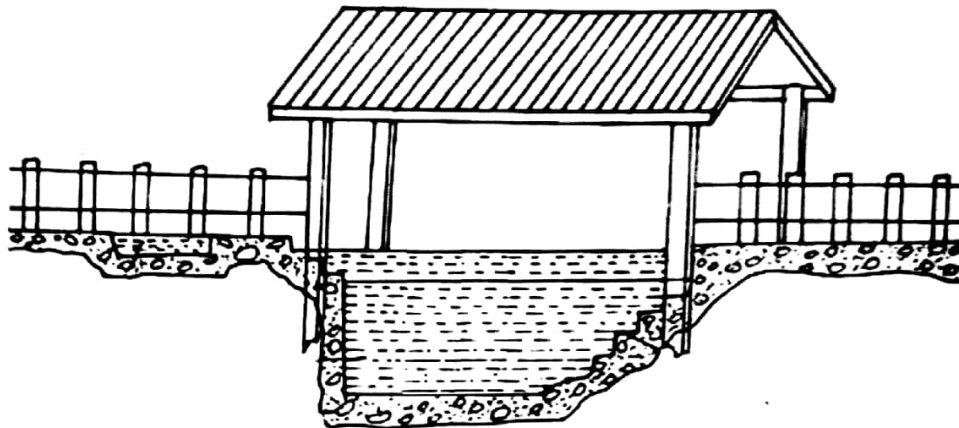
27. Mention the process in plants that helps to prevent air pollution in the atmosphere.

.....

28. Give any **one** reason why a fish dies soon after it has been removed from water.

.....

The diagram below shows a farm structure used in cattle management. Study and use it to answer questions **29** and **30**.



29. Which cattle management practice is carried out in the above farm structure?

.....

30. State the importance of the cattle management practice carried out in the above farm structure.

.....



31. How does docking help to make mating easy in sheep?

.....

32. State the importance of suction pads to a gecko during movement.

.....

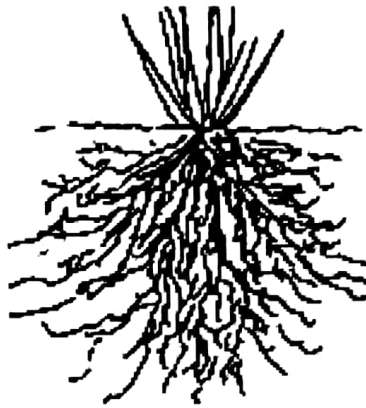
33. Why is it not advisable to dry timber in sunshine?

.....

34. In which way does a lightning conductor protect buildings from lightning strikes?

.....

The diagram below shows the type of root system. Use it to answer questions **35** and **36**.



35. Identify the type of root system shown in the diagram above.
.....
36. Which group of flowering plants develop the type of root system shown in the diagram above?
.....
37. Give any **one** example of an arachnid which is a vector to humans.
.....
38. State any **one** reason why crop farmers carry out thinning in their gardens.
.....
39. Name the plant energy resource that is obtained when wood is burnt under the limited supply of oxygen.
.....
40. Give any **one** method of preparing food at home.
.....



SECTION B: 60 MARKS

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

41. a) Name the storage facility that has rat guards on its stands.

.....

- b) What is the importance of rat guards on the storage facility given in (a) above?

.....

- c) Apart from having rat guards, state any **two** other qualities of the storage facility given in (a) above.

(i)

(ii)

42. a) How does hammering a magnet make it lose its magnetism?

.....

- b) Apart from hammering, state any **two** other ways in which a magnet can lose its magnetism.

(i)

(ii)

- c) Give any **one** way of preventing magnets from losing their magnetism

.....

43. a) State the importance of each of the following features to a bird during flight.

(i) Streamlined body

.....

(ii) Hollow bones

.....

b) Give any **two** other ways in which birds are different from fish.

(i)

.....

(ii)

.....



44. a) Mention any **two** physical processes in matter that involve heat gain.

(i)

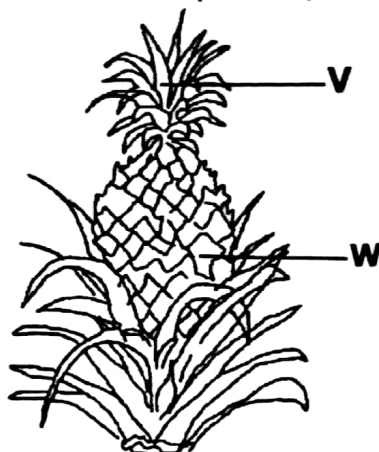
(ii)

b) State any **two** ways in which conduction is useful to people.

(i)

(ii)

45. The diagram below shows a fruit crop. Study and use it to answer questions that follow.



- a) Name the part marked **V**.

.....

- b) State any **one** way in which part marked **W** is important to beverage industries.

.....

- c) Give any **one** way in which the above fruit can be propagated.

.....

- d) Name any **one** other crop that can be propagated in the same way as the above fruit crop.

.....

46. a) Which system of keeping poultry involves putting dry materials on the floor of the poultry house?

.....

- b) State any **one** way in which the dry materials put on the floor are important in a poultry house.

.....

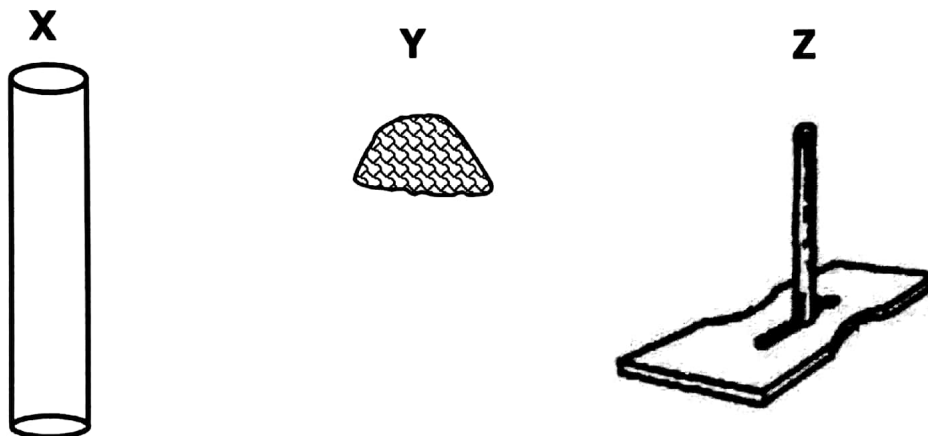
- c) Apart from the system of keeping poultry named in (a) above, mention any **two** other systems of keeping poultry.

(i)

(ii)



47. The diagram below shows structures found on a VIP latrine and ordinary pit latrine. Study and use it to answer the questions that follow.



- a) Name the structure marked with letter **X**.

.....

- b) State the function of the structure marked **Y** on a VIP latrine.

.....

- c) Give **one** reason why the structure marked **Z** is put on an ordinary pit latrine when not in use.

.....

- d) What enables houseflies to pass through the structure marked **X** to reach the structure marked **Y**?

.....

48. In the table below, part **A** show deficiency diseases and part **B** has the body parts they affect.

Part A	Part B
Rickets	the neck
Night blindness	the teeth
Scurvy	the limbs
Goitre	the eye

Use the body parts in part B of the table to match the terms below.

- a) Rickets :
- b) Night blindness :
- c) Scurvy :
- d) Goitre :
49. a) State any **one** characteristic of muscles.

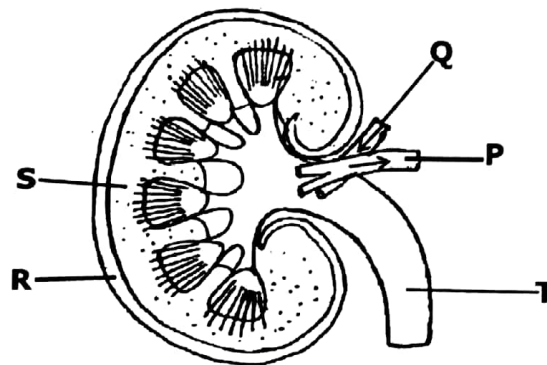
- b) Mention any **one** muscle that aids breathing process in humans.

- c) Apart from helping in breathing process, give any **two** other functions of muscles in the human body.
- (i)
- (ii)



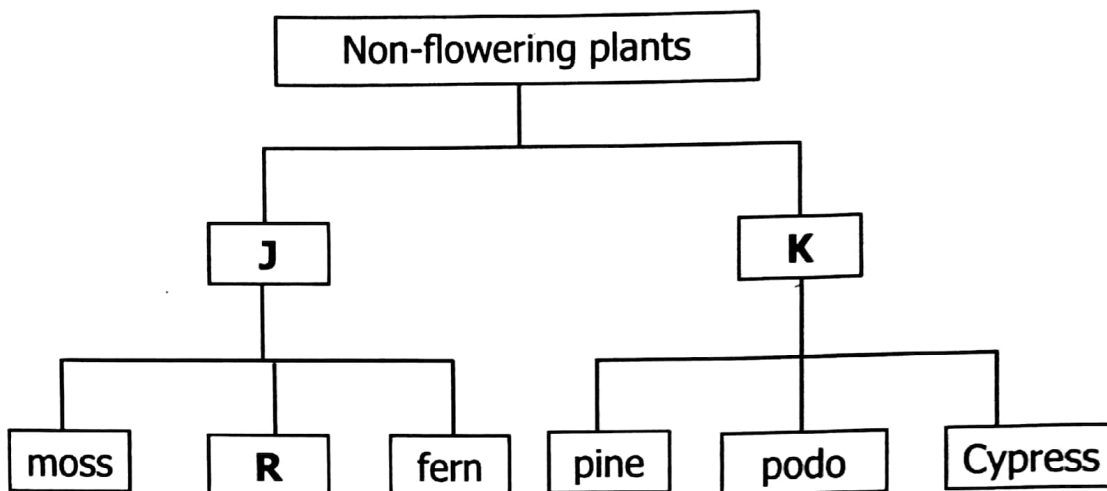
50. a) Give any **two** factors that affect the speed of sound.
- (i)
- (ii)
- b) State any **one** danger of too much wax in the human ear.
-
- c) Why is sound unable to travel through the vacuum?
-

51. The diagram below shows a human kidney. Study carefully and use it to answer the questions that follow.



- a) Name the parts labelled **R** and **T**.
- (i) **R**
- (ii) **T**
- b) What is the function of part marked **S** to the kidney?
-
- c) State the difference in blood carried by blood vessel **P** and blood vessel **Q**.
-
-

52. The table below shows groups of non-flowering plants. Study it and use it to answer the questions that follow.



- a) Name the group of non-flowering plants represented by **K**.
-
- b) Mention any **one** other example of non-flowering plants that can be put at **R**.
-
- c) State any **one** way in which the plant mentioned in (b) above is similar to pine in group **K**.
-
- d) Give any **one** organism in the environment that reproduces in the same way as plants in group **J**.
-



53. a) Give any **two** causes of anaemia in people.

(i)

(ii)

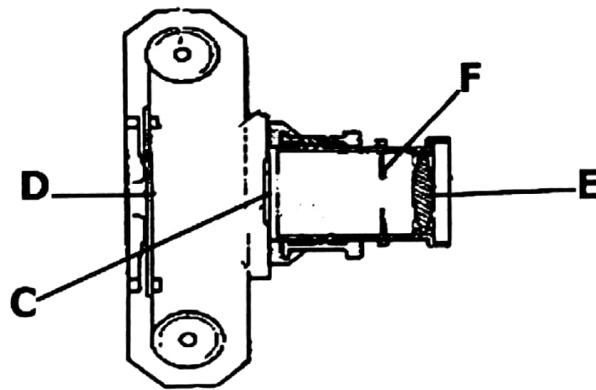
b) Which body system is attacked by anaemia?

.....

c) State any **one** way of controlling anaemia in people.

.....

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



a) Name the parts marked **C** and **E**.

(i) **C**

(ii) **E**

b) Give the function of part marked **F** on the above optical instrument.

.....

c) Which part of the human eye has the same function as part marked **D** on the optical instrument above?

.....

55. a) Give any **two** factors that affect the weight of an object.

(i)

(ii)

b) State any **two** differences between weight and mass.

(i)

.....

(ii)

.....

