



SUREKEY EXAMINATIONS BOARD
PLE MOCK EXAMINATION
2024

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Random NO.						Personal No.		

Candidate's Name:

Candidate's Signature:

School Name:

Read the following instruction 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** the questions. **All** answers to both sections **A** and **B** must be written 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 breeding ground for simuliid flies.
.....
2. Give any **one** factor that increases the rate of transpiration in plants.
.....
3. Give any **one** example of a biological change that enables animals to get food.
.....
4. State the reason why a casualty who has nose bleeding is advised to breathe through the mouth.
.....
5. Give any **one** way in which you can identify a cow suffering from mastitis on a farm.
.....
6. Name the pair of muscles in the human skeleton that work together while opposing each other.
.....
7. Mention any **one** way of conserving fish in the environment.
.....
8. State any **one** way of identifying a child suffering from measles.
.....
9. Give any **one** birth control method that prevents sperms from reaching the fallopian tubes.
.....

10. State any **one** step that can be used when preparing Oral Rehydration Solution (ORS) from factory made packets.

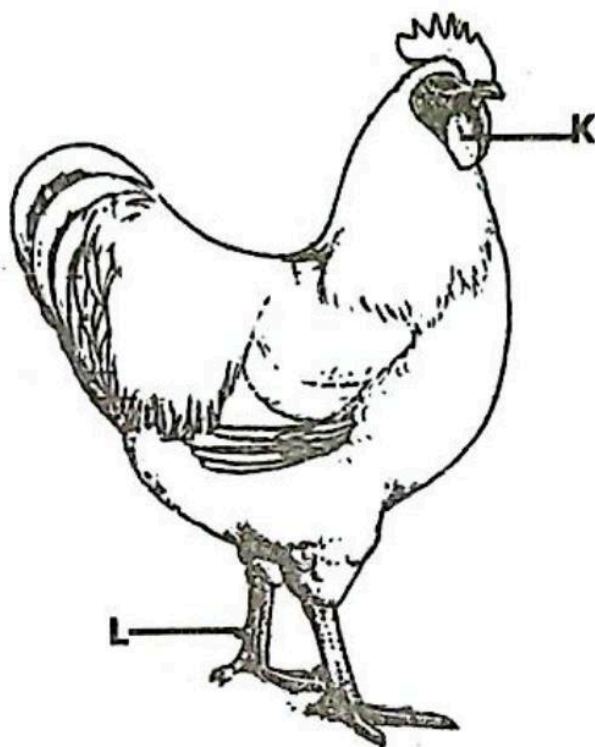
.....



11. Give any **one** way in which heat affects solids.

.....

The diagram below shows a cock. Study and use it to answer questions **12** and **13**.



12. Name the part of the cock marked **K**.

.....

13. Which structures on the caterpillar perform a similar function as part of the cock marked **L**?

.....

14. State any **one** danger of hanging clothes under direct sunshine for a long time to dry.

.....

15. Mention any **one** way in which domestic animals can contribute to the spread of diseases to people at home.

.....

16. How can water contamination be prevented when digging a pit latrine in the community?

.....

17. Give any **one** way in which coal can be used as a resource.

.....

18. State the property that makes a ferry to float on a lake yet it is made of heavy metals.

.....

19. Apart from nectar, mention any **one** other substance collected by worker bees in the environment.

.....

20. State any **one** way in which people use dried slices of pounded cassava tubers at home.

.....

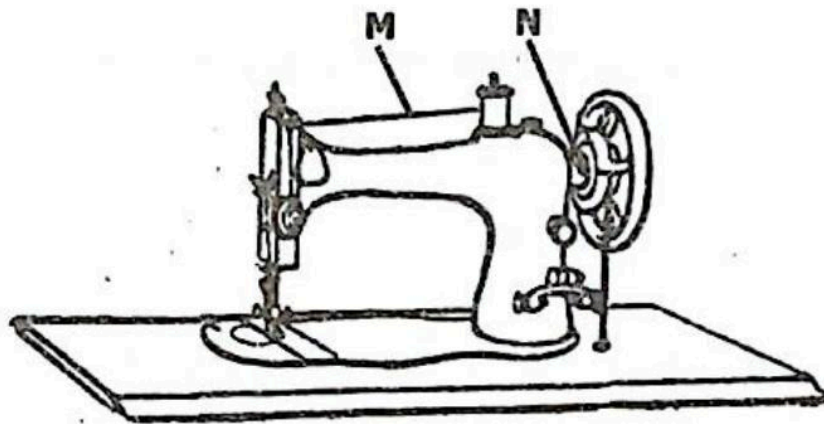


21. Apart from mode of feeding, state any **one** other feature that can be used when classifying birds.

.....

22. How does a sweet potato plant obtain food when all its leaves have fallen down?
-

The diagram below shows a machine commonly found in the community. Study and use it to answer questions 23 and 24.



23. Name any **one** animal fibre that can be used to make the material marked **M**.
-
24. State any **one** way in which friction can be minimized in part marked **N**.
-
25. State any **one** sign of vitamin D deficiency in a child.
-
26. Name any **one** part of the human ear that is not involved in the process of hearing.
-
27. State any **one** role played by an individual in promoting health.
-

28. State any **one** factor that affects the working of inclined planes.

.....

29. Apart from collecting cut grass, give any **one** other way in which a rake is useful during land preparation.

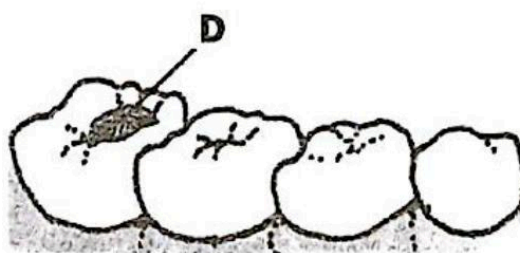
.....

30. State any **one** way in which you can tell that casualty has simple fracture.

.....



The diagram below shows ill health on the teeth. Study and use it to answer questions **31** and **32**.



31. Name the substance marked **D**.

.....

32. State **one** characteristic of the above type of teeth that makes them suitable for crushing food.

.....

33. In which **one** way are the iron keepers useful in the storage of magnets?

.....

34. Write down any **one** component of sweat.

.....

35. Apart from reducing the speed of flowing water, give any **one** other way in which mulches help to control soil erosion in a tree garden.

.....

36. State any **one** way of controlling bacterial diseases.

.....

The diagram below shows a feeding bottle. Study and use it to answer questions 37 and 38.



37. Name the part marked G.

.....

38. State any **one** condition under which the mother can feed the baby using the bottle above.

.....

39. Give any **one** way in which sunshine supports the life of plants.

.....

40. Give any **one** way in which essential drugs help to meet people's health needs.

.....



SECTION B: 60 MARKS

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

41. (a) Write any **two** sources of natural materials used in basic technology.

(I)

(II)

- (b) Give any **two** features used to identify materials used in basic technology.

(I)

(II)

42. Chloe wanted to demonstrate an experiment about soil. She carried out the following steps.

(i) Put the transparent glass on the table.

(ii) Poured water into the glass.

(iii) Lowered a lump of soil into the water.

- (a) State what Chloe observed after lowering the lump of soil into the water.

.....

- (b) What is the importance of the following materials that Chloe used in her experiment above?

(i) Water:

.....

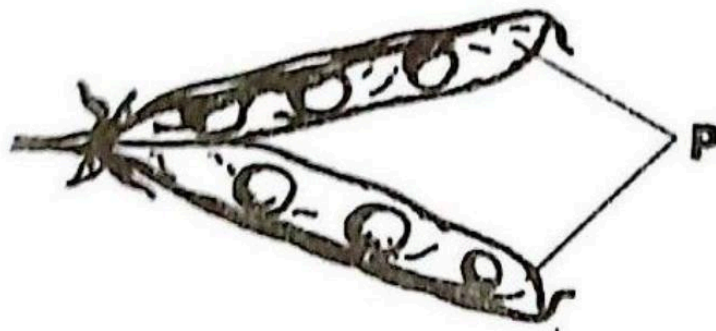
(ii) Transparent glass:

.....

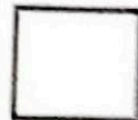
- (c) According to the above steps, why did Chloe carry out the above experiment?

.....

43. The diagram below shows the method of seed dispersal in bean seeds. Study and use it to answer the questions that follow.

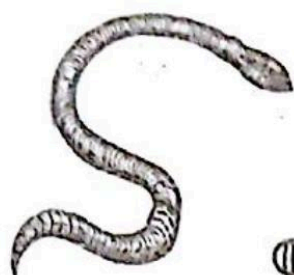


- (a) Identify the method of seed dispersal shown in the diagram above.
-
- (b) State any **one** factor that makes the structure marked **P** to split during seed dispersal.
-
- (c) Name any **two** other plants whose seeds are dispersed as the bean seeds above.
- (I)
- (II)



44. (a) State any **two** ways in which poor sanitation affects the health of people in the community.
- (i)
- (ii)
- (b) Give any **one** way in which rubbish can be properly disposed at school.
-
- (c) Name any **one** organism that prevents the septic tank from filling up quickly with faeces.
-
45. (a) What is meant by the term malnutrition?
-
-
- (b) State any **two** factors that can lead to malnutrition in children.
- (i)
- (ii)
- (c) Mention any **one** method of preserving food that does not require heat.
-

46. The diagrams below show animals that are non-vertebrates. Study and use them to answer the questions that follow.



W



X



Y



Z

- (a) To which group of arthropods do animals marked **X** and **Z** belong?
- (i) **X** :
- (ii) **Z** :
- (b) Give any **one** reason why animal marked **W** is different from animal marked **Y**.
-
- (c) Identify any **one** animal from the diagrams above that helps to improve soil aeration.
-



47. (a) Mention any **two** ways in which a crop farmer can identify crops affected by diseases.

(i)

(ii)

(b) Which crop pest transmits mosaic virus to cassava plants?

.....

(c) State any **one** non-cost measure that a crop farmer can use to control crop pests in the garden.

.....

48. (a) Name any **two** parts on a house that aid in air circulation.

(i)

(ii)

(b) Which method of heat transfer aids in air circulation in a house?

.....

(c) State the importance of a chimney on a factory.

.....

49. (a) Identify any **one** non-diarrhoeal disease that affects the digestive system.

.....

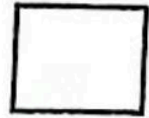
(b) State any **two** health habits that affect the proper functioning of the digestive system.

(i)

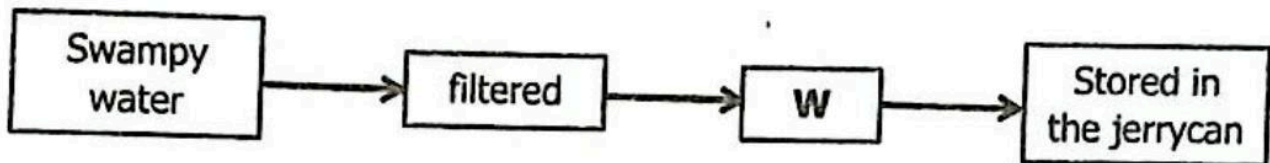
(ii)

- (c) State any **one** role of the tongue during digestion of food.

.....



50. The diagram below shows a simple demonstration of a water purification system. Study and use it to answer the questions that follow.



- (a) Name any **one** activity that can be done to water at point **W**.

.....

- (b) Why is swampy water filtered before being taken at point **W**?

.....

.....

- (c) State the importance of passing water through point **W**.

.....

- (d) Mention any **one** other activity that can be done to swampy water before being taken to point **W**.

.....

51. (a) What term is used to mean the amount of material in a given volume of a substance?

.....

- (b) The amount of material in a given volume of a substance is 4g/cc occupying the amount of space of 10cc. calculate the quantity of matter in that substance. (03 Marks)

52. (a) Write any **two** things that intestinal worms obtain from the human body.

(i)

(ii)

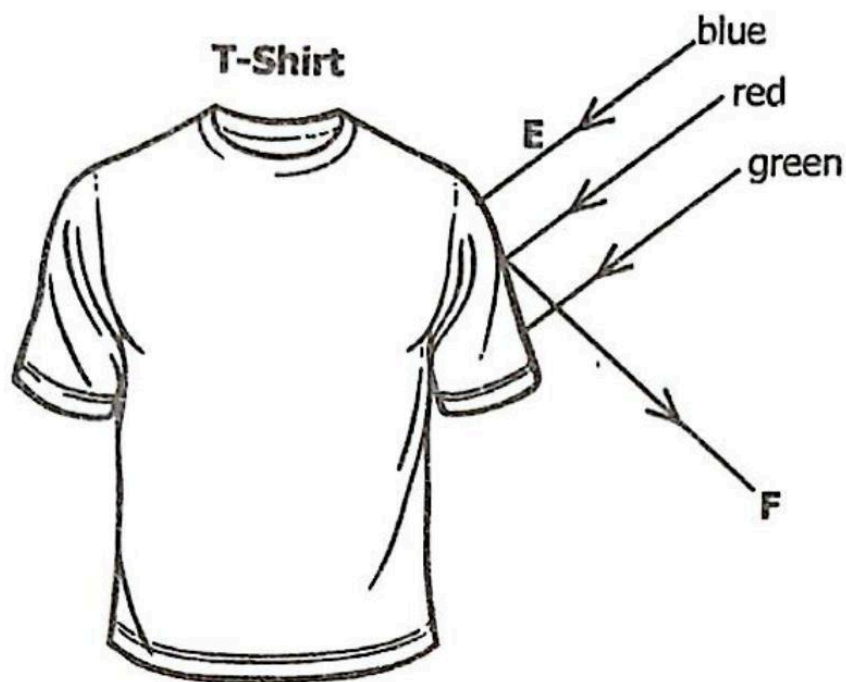
- (b) State any **two** ways in which intestinal worms affect the health of a child.

(i)

(ii)



53. The diagram below shows light rays of different colours striking a T-Shirt. Study and use it to answer the questions that follow.



- (a) Name the light rays marked **E** and **F**.

(i) **E** :

(ii) **F** :

- (b) By observing the diagram above critically, what is the colour of the T-Shirt?

.....

- (c) Give a reason to defend your response in (b) above.

.....

54. (a) Write any **two** diseases that an individual can contract due to lack of clean water for promoting personal hygiene.

(i)

(ii)

- (b) Give any **two** ways in which an individual can protect him/herself from diseases caused by lack of clean water.

(i)

(ii)

55. A boy wanted to know if air moves things. He made a kite using the following materials.

A sheet of paper, two sticks, short strings and a long string.

Write four steps that the boy used to make a kite to show that air moves things.

(i)

.....

(ii)

.....

(iii)

.....

(iv)

.....

