

**2024**

**INTEGRATED SCIENCE**

*Time allowed: 2 hours 15 minutes.*

Random No.					Personal No.				

Candidate's Name

Candidate's Signature

School Name

**Read the following instructions carefully:**

1. This paper is made up of two sections: A and B
2. Section A has 40 questions (40 Marks)
3. Section B has 15 questions (60 Marks)
4. Answer ALL questions in both sections A and B
5. All answers must be written in the space provided in blue or black ball point pens and ink. Only diagrams should be done in pencil.
6. Unnecessary crossing of answers will lead to loss of marks
7. Any handwriting, which cannot be easily read, may lead to loss of marks
8. Do not fill anything in the boxes indicated for Examiners' use only.

FOR EXAMINER'S USE ONLY		
Qn.No	MARKS	INITIALS
1-10		
11-20		
21-30		
31-40		
41-43		
44-46		
47-49		
50-52		
53-55		
TOTAL		

**SECTION A. (40 Marks)**

1. Name the crop growing practice which reduces the weight of a crop.  
.....
2. State any one way smoking affects a pregnant mother.  
.....  
.....
3. Write down one function of mycelium to a fungus.  
.....  
.....
4. Name the Sexually Transmitted Disease which causes blindness in newly born babies.  
.....

The diagram below shows the human ear. Study and use it to answer question 5.



5. State the function of part marked B.  
.....  
.....
6. Name the form of energy stored in dry cells.  
.....
7. Give any one reason the pen of goats should be built with a slanting floor.  
.....  
.....
8. Name the method farmers use to propagate cassava.  
.....
9. Give a reason why a VIP latrine should not have a lid for the squat hole.  
.....  
.....

10. Mention one example of nitrogenous components excreted by the kidneys.



11. Write down any one example of myriapods.

12. How is an eagle adapted to tearing its prey?

13. Give a reason why the legs of a fainted person are raised to a higher level than the head when giving him or her First Aid.

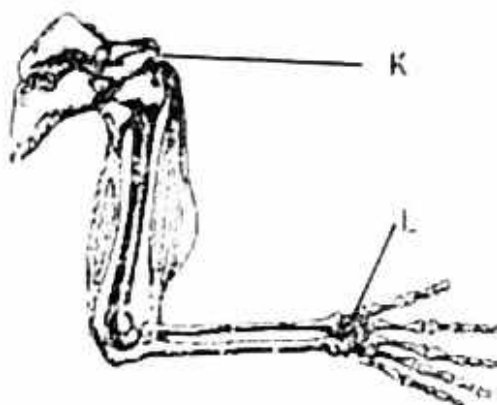
14. State the function of sporangium to a liverwort plant.

15. In which one way is the pupil of the human eye similar to the aperture of a lens camera in terms of function?

16. State one role played by the tongue during digestion of food.

17. How does mulching control soil erosion?

The diagram below shows part of the human skeleton. Study and use it to answer questions 18 and 19.





18. Name the joint found at part marked K.

19. State any one similarity between joint K and L.

20. Give a reason why the elderly should be fed on soft food.

21. Write the type of castration which involves the use of burdizzo.



22. Why is a frog able to live both on land and in water?

23. Name the passage through which food nutrients and oxygen reach the foetus during pregnancy.

24. How is transpiration in plants important to the environment?

25. State one danger that may result from sharing clothes among schoolchildren.

26. State one way of increasing the strength of an electromagnet.

27. Name the inner layer of the human skin.

28. State the reason why water obtained by filtration is not good for drinking.

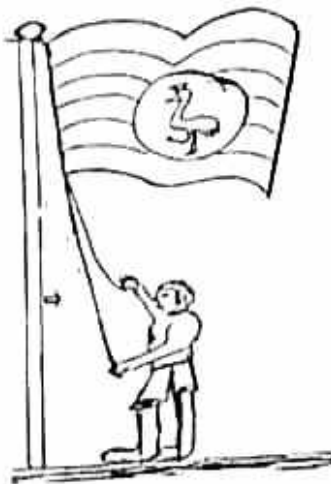
29. Which intestinal disease involves passing out blood stained watery stools?

30. State one way weeds low crop yields.

31. Write down any one characteristic of insect pollinated flowers.

32. Give any one way poultry farmers can keep their poultry busy to control their vices.

The diagram below shows a boy using a pulley. Use it to answer questions 33 and 34.



33. Identify the activity being done by the boy in the diagram.

34. State one advantage of using the type of pulley the boy is using.

35. State one characteristic of objects whose volume is found using displacement method.

36. Write the change of state of matter used to convert milk into ice cream.

17. State any one way biogas helps people to conserve the environment.

18. Name the blood vessel that carries oxygenated blood from the lungs to the heart.

19. State one way babies acquire natural immunity.

20. State any one role of a community in the promotion of Primary Health Care.

**SECTION .B. (60 MARKS)**



41. (a) State the use of the following equipment on a dairy farm;

(i) Strip cup

(ii) Lactometer

(b) Give any two measures taken by dairy farmers to obtain clean milk during milking.

(i) \_\_\_\_\_  
(ii) \_\_\_\_\_

The diagrams below show different animals in the environment. Study and use them to answer question 42.



A



B



C



42 (a) To which class of mammals does animal B belong?

(b) State the relationship among the above three animals in the diagrams.

(c) How does animal A differ from all the other animals in the diagrams above?

(d) In which one way is animal C useful in our environment?

Study the table below to complete statements of question 43.

Component of blood	Function or what it contains
Plasma	helps in blood clotting
Red blood cell	has nucleus
White blood cell	has haemoglobin
Platelets	transports dissolved substances such as digested food

43. (i) Plasma

(ii) Red blood cell

(iii) White blood cell

(iv) Platelets

44. (a) Write down any two qualities of laboratory manufactured drugs.

- (i) .....
- (ii) .....

(b) Why should the sick take laboratory manufactured drugs following instructions given to them by doctors?

.....  
.....

(c) How is drug misuse different from drug abuse in the use of drugs?

.....  
.....

Apecky's children were suffering from a certain immunisable disease and showed the following signs/symptoms. Study and use them to answer question 45.

- High fever
- Stiff muscles
- Spasms when touched
- Stopped sucking milk from mother's breasts

45. (a) Name the disease the child was suffering from.

.....

(b) Which vaccine is administered to babies to prevent the above disease?

.....

(c) State the way the disease you have mentioned in (a) above spreads.

.....  
.....

(d) Write down any one role of a parent during immunization.

.....  
.....



46. (a) How does each of the following cause loss exhaustion in farmers' gardens:

(i) Soil erosion?

.....  
.....

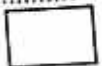
(ii) Leaching?

.....  
.....

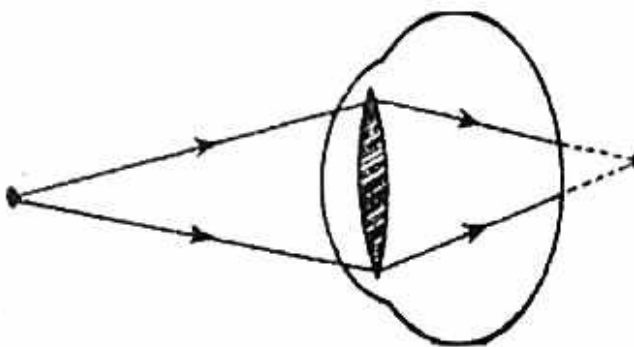
(b) Give two common practices farmers do to restore soil fertility in their gardens.

(i).....

(ii).....



The diagram below shows an eye defect. Study and use it to answer question 47.



47. (a) Name the type of eye defect in the above diagram.

.....

(b) Write down two causes of the above eye defect.

(i) .....

(ii) .....

(c) Which lens is used to correct the above eye defect?

.....

.....

48. (a) Write any two natural sources of heat energy.

(i) .....

(ii) .....

(b) Which method of heat transfer helps a black smith in making metals soft to be easily shaped?

(c) Apart from melting, mention one other effect of heat gain on metals.

49. (a) Write down two structural differences between a worker bee and a queen bee.

(i) .....

(ii) .....

(b) State any two roles of worker bees in the hive.

(i) .....

(ii) .....

50. (a) Name the disease spread by the following vectors;

(i) Black fly

.....

.....

(ii) Female anopheles mosquito

.....

.....

(b) How do the above vectors spread disease causing germs to humans?

.....

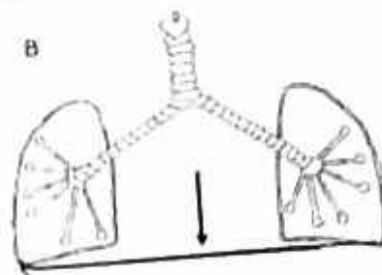
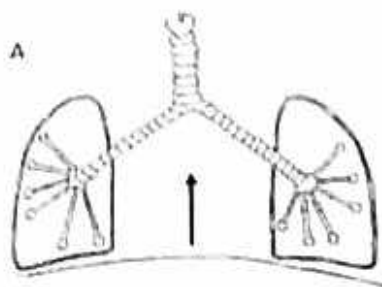
.....

(c) State any one way of controlling vectors in a home.

.....

.....

Study the diagrams below and answer question 51.



51. (a) To which body system do the above diagrams belong?

(b) What type of breathing is shown by diagram;

(i) A?

(ii) B?

(c) What role is played by air sacs in breathing?

52. (a) Mention any two examples of vitamin related deficiency diseases.

(i)

(ii)

(b) State any two food stuffs we eat to avoid vitamin related deficiency diseases.

(i)

(ii)

53. (a) Write down any two properties of sand soil.

(i)

(ii)

(b) Give any one importance of sand soil to people.

(c) Apart from sand soil, name any one other type of soil.

54. (a) Mention one disease that affects both poultry and rabbits.

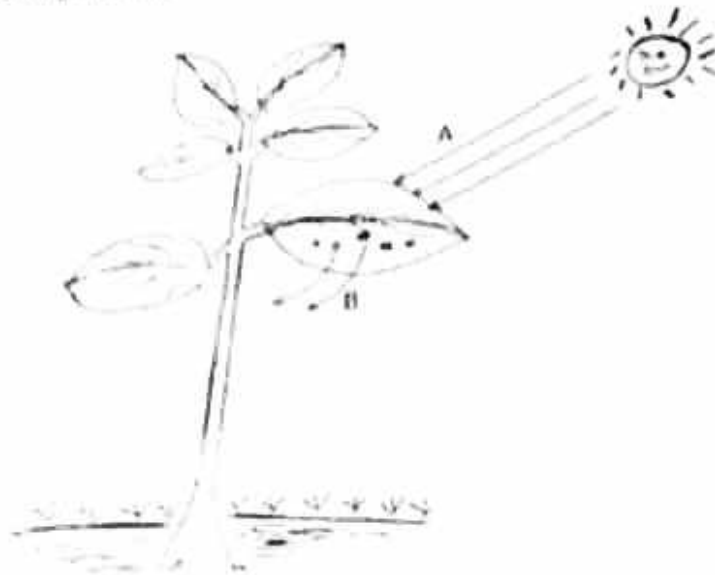


(b) Give a reason why rabbit farmers construct rabbit hatches with:  
(i) wire mesh

(ii) raised floors

(c) What name is given to manufactured feeds of rabbits?

The diagram below shows a plant process. Study and use it to answer question 55.



55. (a) Identify the plant process taking place in the above diagram.

(b) Which substance is enabling the above plant to obtain condition A?

(c) State the role of condition marked A to the above process.

(d) Name the byproduct marked B.

END

