

THE SIPRO PRE-PLE SET II 2022

INTEGRATED SCIENCE

Time Allowed: 2 Hours 15 Minutes

Random No.						Personal No.		
Index 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**.
2. Section **A** has 40 questions (40 Marks).
3. Section **B** has 15 questions (60 Marks).
4. Attempt all questions in both sections. All answers to both sections **A** and **B**, must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or *ink*. Only diagrams and graph work must be done in *pencil*.
6. Unnecessary *alteration* of work will lead to loss of marks.
7. Any *handwriting* that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the boxes indicated:

"FOR EXAMINER'S USE ONLY"

For Examiner's Use Only:

PAGES	MARKS	INITIALS
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Page 9		
Total		

Please turn over



THE SIPRO EDUCATIONAL SERVICES LIMITED - KAMPALA

PUBLISHERS OF THE SIPRO TEACHERS' GUIDES, LEARNER'S WORKBOOKS & HOLIDAY ASSIGNMENTS

SECTION A: 40 MARKS

Questions 1 to 40 carry one mark each.

1. Name the vector responsible for the spread of both trachoma and diarrhoea.

2. Mention the component of air which supports rusting of metallic objects.

3. Write down one function of the ovary in the human reproductive system.

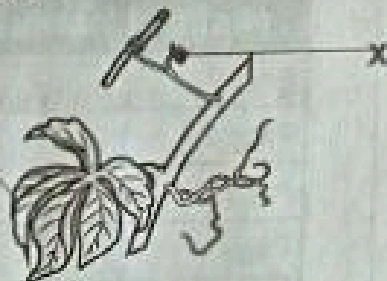
4. Give one cause of anti-social behaviour in a school community.

5. Why does sugar disappear when put in water?

6. State the importance of a strip cup to a dairy farmer.

7. Name the body sense organ that enables us to detect tasty food.

The diagram below shows a method of climbing. Study and use it to answer questions 8 and 9.



8. Name the part marked with letter X on the diagram above.

9. How important is the part you have named in No. 8 above to the plant?

10. What safety measure can be taken by electrical engineers to control short circuits in an installation?

11. How are red blood cells important in the human body?

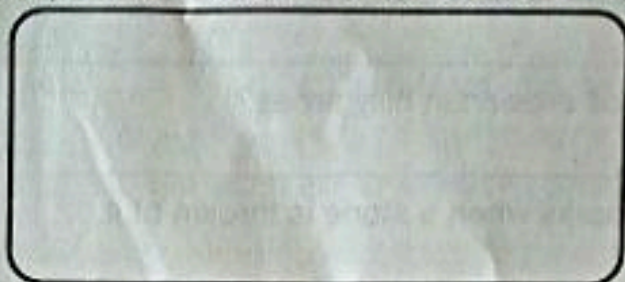
12. Which property of magnets is seen when a magnet is dropped in iron filings and they settle mostly at the ends?



13. Name the dangerous gas found in tobacco smoke.

14. How best can cattle farmers improve the quality of their local breeds of cattle?

15. In the space provided below, draw a beak of a nectar sucking bird.



16. What name is given to the smallest unit of an organism?

17. Apart from brushing and rinsing, name any other activity done by people to promote oral health.

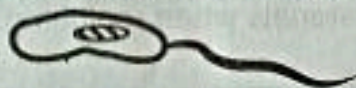
18. Mention one way pineapples can be propagated.

19. Give the reason why people burning bricks cover them with mud.

20. Why is a person suffering from gonorrhoea advised to go with his/her sexual partner for treatment?

21. Give one traditional method of preserving food.

22. Name the reproductive cell shown in the diagram below.



23. How are mammals similar to birds in terms of reproduction?

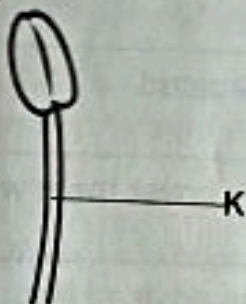
24. State the type of bee with a pollen basket.

25. Why is a spider regarded as an arachnid?



26. Give any **one** sign of brain damage caused by alcoholism to an individual.
27. Why is the trachea made up of rings of cartilage?
28. Name the non-metallic conductor of electricity found in a dry cell.
29. How does terracing control soil erosion in hilly areas?
30. Give **one** reason why a dog barks when a stone is thrown at it.
31. State **one** way of managing fire outbreaks in schools.

The diagram below shows part of a flower. Study and use it to answer questions 32 and 33.



32. Name the part of a flower shown in the diagram above.
33. Which type of plant gametes are produced by the flower shown in the diagram above?
34. Why is it not advisable to use fresh materials when mulching the garden?
35. How can heat transfer by conduction be put into practice at home?
36. What proves that light energy travels faster than sound energy on a rainy day?
37. Name the class of food whose chemical digestion begins in the duodenum.



38. How does friction help in the control of motor accidents?

39. How are bacteria useful in the formation of biogas?

40. State one importance of starting a Young Farmer's Club in a school.

SECTION B: 60 MARKS

Questions 41 to 55 carry four marks each

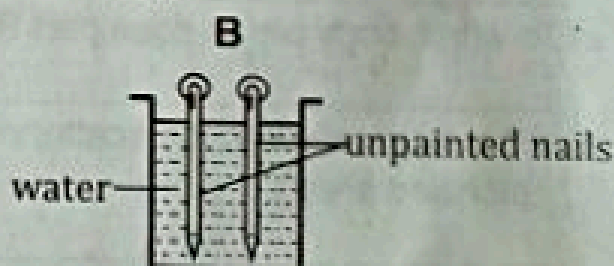
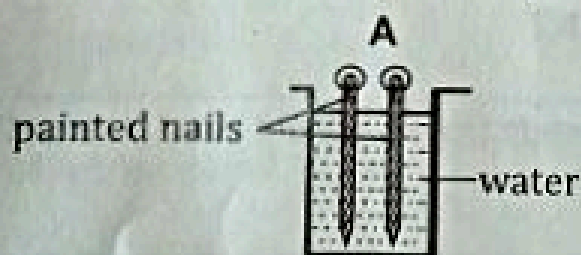
41. a) Give the function of each of the following parts of the eye:
i) retina _____
ii) iris _____
b) State any one way the pinhole camera is similar to the human eye in the way they function.

c) Name the eye disease caused by poor feeding.

42. a) Write any two factors considered when selecting a good site for setting a hive.
i) _____
ii) _____
b) Give any one way;
i) bees benefit from a coffee plantation nearby.

ii) coffee plants benefit from an apiary nearby.

43. The diagram below shows an experiment carried out by the science club in a school. Use it to answer the questions that follow.



- a) What was the experiment about?

- b) How is painting important to the nails in setup A?

c) Which type of change did the nails in setup B undergo after a night?

d) Apart from water, what other condition enabled nails in setup B undergo the above mentioned change?

44. a) State the importance of each of the following First Aid Kit in administration of First Aid:

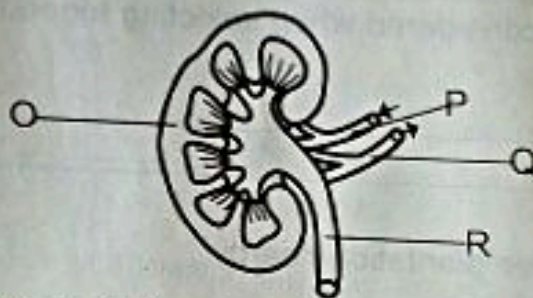
i) splints

ii) safety pin

b) State the difference between a burn and a scald.

c) Give one way you can help a friend with a burn at home.

45. The diagram below shows a human kidney. Use it to answer the questions that follow.



a) Name parts labelled P and Q.

i) P

ii) Q

b) What important process takes place in part labelled O?

c) To which body organ does part R lead N?

46. a) What term refers to the scattering of seeds from a parent plant to a well colonised area?

b) Write any two adaptations of seeds to being scattered by animals.

i)

ii)

c) Name any other agent that scatters seeds, apart from animals.



47. a) How does each of the following animals protect itself against enemies?

(i) tortoise _____

(ii) wasp _____

b) Which characteristic of living things is proven when a rabbit runs away from a dog for protection?

c) Apart from the one mentioned in (b) above, state **one** other characteristic of living things.

48. a) Give any **one** example of wood fuel commonly used in our environment.

b) State any **two** ways of conserving energy from wood fuel.

i) _____

ii) _____

c) Why are plants called renewable resources?

49. Match the simple machines in list A to their groups in list B correctly.

A

B

screw driver

levers

beam balance

wedges

staircase

wheel and axles

machete

inclined planes

i) screw driver _____

ii) beam balance _____

iii) staircase _____

iv) machete _____

50. a) Name the form of energy that stimulates the sense of hearing in animals.

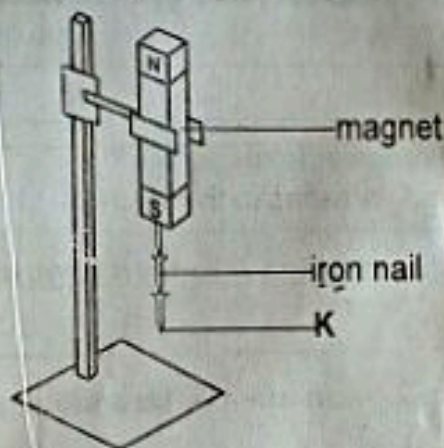
b) Give **two** other importance of the form of energy mentioned in 50 (a) above to people, apart from hearing.

i) _____

ii) _____

c) State **one** way people store the form of energy mentioned in (a) above.

51. The diagram below shows a method of magnetisation. Use it to answer the questions that follow.



a) How do the iron nails shown in the diagram above become magnetised?

b) Name pole marked with letter K.

c) What scientific name is given to the magnet made using the above method?

d) Give any **one** way of caring for magnets.



52. a) Name the kind of feeding in babies that helps to boost the body immunity.

b) Mention any two reasons why babies should be weaned.

i) _____

ii) _____

c) Why should babies be fed on soft foodstuffs during the weaning period?

53. a) State one farm practice that helps to control external parasites in cattle.

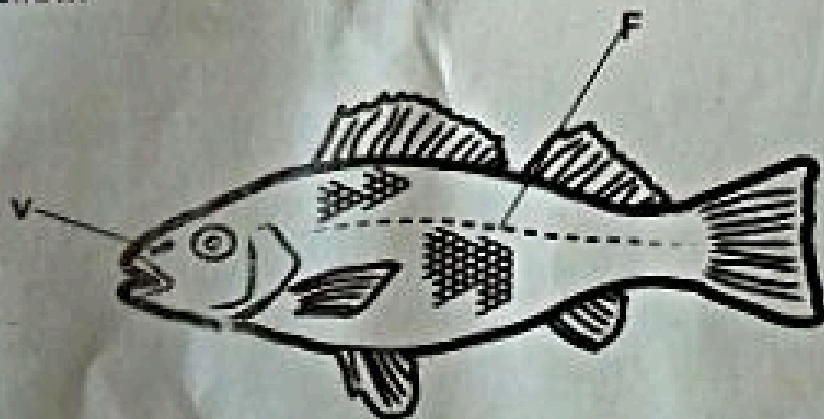
b) What scientific name is given to chemicals used to control external parasites in cattle?

c) Give two effects of external parasites to livestock.

i) _____

ii) _____

54. The diagram below is of a common animal. Use it to answer the questions that follow.



a) Name the part labelled with letter V.

b) How is part F on the animal shown above similar to the ears on human beings in the way they function?

c) To which group of vertebrates does the animal shown in the diagram above belong?

d) How is fertilization in the animal above different from that in a chameleon?

55. a) Why does photosynthesis take place during day time but not at night?

b) Write the **two** raw materials needed for photosynthesis to occur.

i) _____

ii) _____

c) How does photosynthesis support respiration in animals?

