

SIR APOLLO KAGGWA SCHOOLS SINCE 1996

TEACHERS' COMPETENCE TEST -2023

UPPER SECTION (P.4-P.7)

INTEGRATED SCIENCE

Time allowed: 2 hours 15 minutes

Teacher's Name: _____

Tel. contact(s): _____

Class(es) taught: _____

Subject combination: _____

Read the following instructions carefully:

1. The paper has **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. All answers to both Sections **A** and **B** must be written in the spaces provided.
5. All answers must be written using a blue or black ball point pen or ink. Diagrams should be drawn in pencil.
6. Unnecessary crossing of work may 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

Qn. No	MARK	SIGN
1 – 10		
11 – 20		
21 – 30		
31 – 40		
41 – 43		
44 – 46		
47 – 49		
50 – 52		
53 – 55		
TOTAL		

TURN OVER

SECTION A: (40 MARKS)

(Questions 1 to 40 carry one mark each)

1. Name any one method of making dirty water clean for home use.

2. State the type of animal parasites controlled by dipping cattle in acaricides.

3. Which body system is responsible for production of gametes?

4. State one way water is used as an energy resource.

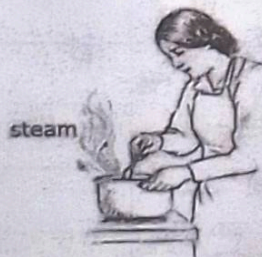
5. How is a moth able to locate a flower at night?

6. Mention any one device which changes kinetic energy to electrical energy.

7. How does the circulatory system help the body to produce energy?

8. Name the digestive disorder caused by dehydration.

The diagram below shows a mother cooking in a kitchen. Study and use it to answer questions 9 and 10.



9. Which accident can the mother get if her hand touches the steam above?

10. Why is the mother holding the saucepan with a piece of cloth in the above diagram?

11. Apart from removing wastes state one other function of the human kidney.

12. State the role of valves found in veins.

13. Mention any one device used to measure volume of irregular objects.

14. Why are beans grouped under legumes?

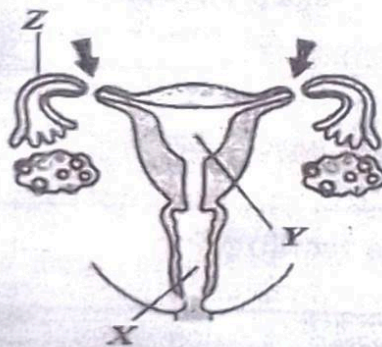
15. Give any one protective function of the human skeleton.

16. How useful is stagnant water to a mosquito?

17. Give one way in which plant leaves are adapted to photosynthesis.

18. State one way single fixed pulleys simplify work.

The diagram below shows a method of family planning. Study it and use it to answer questions 19 and 20.



19. Name the method of family planning shown on the diagram above.

20. Give any one disadvantage of the above family planning method.

21. Name one force that opposes sinking of objects in water.

22. How is the reproduction in a whale different from that of a tilapia?

23. State the characteristic that enables plants and animals to replace themselves as resources.

24. Give any one importance of castration of male animals.

Give any one importance of sweating to human beings.

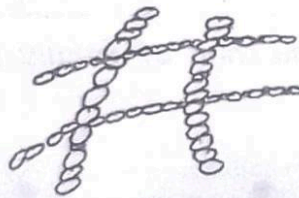
Name one structure on a farm used as a store for grains.

Give any one method used to make a temporary magnet.

State any one disadvantage of chemical changes in the environment.

State any one sign and symptom of bilharziasis in humans.

The diagram below shows eggs of an amphibian. Study it and use it to answer questions 30 and 31.



1. Which amphibian lays the shown type of eggs?

2. How are the eggs shown above fertilized?

3. How is joining of good clubs help to control antisocial behavior among children.

4. Give one way of improving the efficiency of wedges.

5. State any one important process which takes place in human ileum

6. How is sorting of clothes useful to a person cleaning clothes?

7. State the property of a magnet that enables a mother to sort out iron pins from beads before cooking.

The diagram below shows part of the body organs. Study and use it to answer questions 37 and 38.



37. Name the body organ with the part shown above.

38. State any one material used for cleaning the above organ.

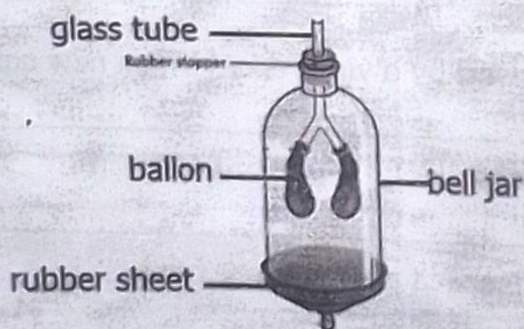
39. Give any one importance of proper waste disposal in the environment.

40. Give any one importance of light in the environment.

SECTION B: 60 MARKS

(Questions 41 to 55 carry four marks each)

41. The diagram below shows a model of one of the body system. Study and use it answer questions that follow.



a) Name the human body system represented above.

b) What does each of the following materials represent on the body system you have named above.

i) Glass tube

ii) balloon

c) Why do the balloons expand when the rubber sheet is pulled downward?

42. The table below shows blood vessels of the heart and their functions. Fill in the table correctly.

Blood vessels	Functions
Venacava	i) _____
ii) _____	Carries deoxygenated blood from the heart to the lung
Pulmonary vein	iii) _____
iv) _____	Carries oxygenated blood from the heart to all body parts

43. (a) Give any two examples of a physical change.

(i) _____

(ii) _____

(b) Give any two examples of a chemical changes that require oxygen to take place.

(i) _____

(ii) _____

44. a) Name any one poultry disease caused by a virus apart from new castle disease.

b) Give any one sign of new castle disease.

c) State any two ways of controlling diseases on a poultry farm.

(i) _____

(ii) _____

45. (a) Give any two pieces of information collected using demography.

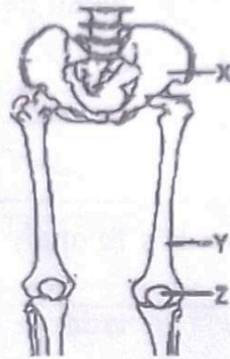
(i) _____

(ii) _____

How is the information given on demography above collected?

State any one reason why the government collects information on demography.

The diagram below shows a section of the human skeleton. Study and use it to answer questions that follow.



a) Name the bone marked X and Y in the diagram above.

i. X _____

ii. Y _____

b) Which type of movable joint is located at Z?

c) How is friction reduced at joint labeled Z in the above diagram?

47. (a) Apart from mastitis, state any two other bacterial diseases of cattle.

i. _____

ii. _____

(b) Give any two signs which show that an animal is suffering from mastitis.

i. _____

ii. _____

48. (a) Give any two factors considered by health worker before prescribing a drug to patient.

i. _____

ii. _____

(b) State any one importance of drug prescription to a patient.

(c) Give any one reason why it is not advisable to buy drugs from ordinary shops.

49. a) Apart from compost manure, name any one other examples of natural manure.

b) Give the importance of each of the material given below when making compost manure.

(i) Ash

ii) Water

c) Name any one method used by crop farmers to apply manure.

50. Match the vaccine in list X to the part of the body where they are administered in list Y correctly.

X-Vaccine	Y-Immunization site
BCG vaccine	left upper arm
Polio vaccine	right upper arm
DPT vaccine	mouth
Measles	left upper thigh

(a) BCG vaccine

(b) Polio vaccine

(c) DPT vaccine

(d) Measles

51. (a) Name the component of an electric circuit that;

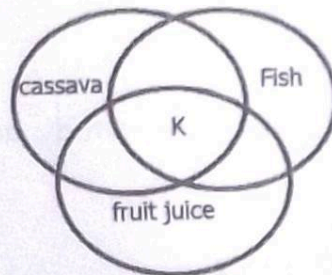
(i) Produce light

(ii) breaks and completes the circuit.

(b) Give any one sign of short circuit in a house.

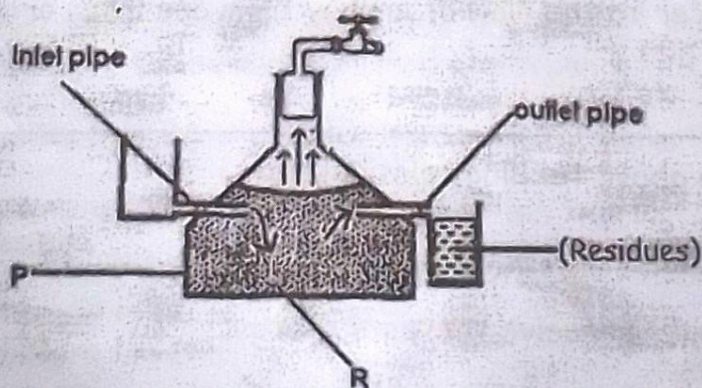
(c) Write any one danger of short circuit.

52. The diagram below shows food stuffs eaten by people in a certain home. Study and use it to answer the question that follow.



- (a) What type of meal is represented by letter K.
- (b) Why is it advisable for a member of the above family who is a builder to feed on cassava?
- (c) Which food stuff from the above diagram should a mother give to her children to prevent kwashiorkor?
- (d) Which class of food does fruit juice provide to the family's diet?

53. The diagram below shows an equipment used to produce fuel. Study and use answer the questions that follow.



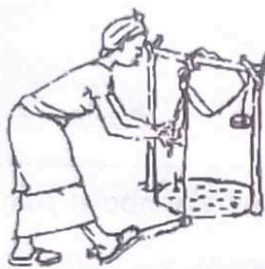
- a) Name the fuel produced in the equipment above.

b) Give one example of a material that should be put at R.

c) Why is equipment marked with letter P kept air tight?

d) How is substance in residues useful to crop farmers?

54. The diagram below shows a hand washing facility. Study and use it to answer the questions that follow.



(a) Name the hand washing facility above.

(b) Name any two diseases we can control from spreading by using the above facility.

i. _____

ii. _____

(b) Why is the facility above operated using foot?

55. (a) What term is used to refer to the flow of energy from one living organism to another?

(c) How is the sun useful in the above feeding relationship?

c) State one way primary consumers receive the sun's energy.

d) Name any one group of mammals that are primary consumers.

***** END *****