



REBECO ACADEMIC CONSULTANCY

THE NATIONAL SCIENCE CHALLENGE 2024

PRIMARY LEVEL PAPER 1

Time allowed: 2 hours 15 minutes

CANDIDATE'S NAME _____

SCHOOL: _____

DISTRICT _____

Random No.						Personal No.		

INSTRUCTIONS TO CANDIDATES AND SUPERVISORS

Do not turn this page until you have been instructed to do so.

Read the following instructions carefully.

1. This paper has **two** Sections: **A** and **B**.
Section **A**, has **40** questions and section **B** has **15** questions.
2. Answer **all** questions. **All** answers to both Section **A** and **B** MUST be written in the spaces provided.
3. **ALL** answers **must** be written using a blue or **black** ballpoint pen or ink. Any work written in pencil will **not** be marked.
4. Unnecessary **changes** in your work and handwriting that cannot be easily read may lead to **loss of marks**.
5. Do not fill anything in the table indicated;
"For examiners' use only" and boxes inside the question paper.

FOR EXAMINERS USE ONLY		
QN. NO.	MARK	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 gas that bubbles out when a soda bottle is opened.

.....

2. How do legumes help to improve on fertility of the soil.

.....

.....

3. Why is a gecko able to swiftly move upside down on a ceiling?

.....

.....

Below are components of blood. Use them to answer questions 4 and 5.



4. In terms of function, compare blood component **A** and **B**.

.....

.....

5. Name the living organism that moves by help of a pseudopodia

.....

6. HIV /AIDS doesn't kill but what causes death in an AIDS patient?

.....

.....

7. A piece of cloth washed at night and hanged on a wire will dry. Why?

.....

.....

8. Give the use of a stretcher to a first aider.

.....

.....

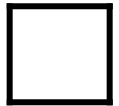
9. Give **one** reason why distilled water doesn't conduct electricity.

.....

.....

10. Mention any **one** disorder of the female reproductive organ.

.....

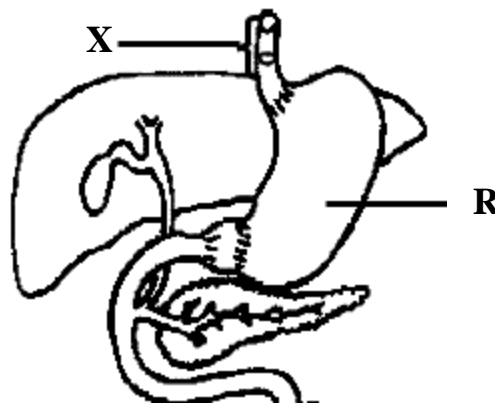


11. State any one way breast feeding mothers can increase on milk in their breasts?

.....

.....

The diagram below is of a part of the digestive system. Use it to answer questions that follow.



12. Identify part marked **X**.

.....

13. How is the substance produced in **R** useful in digestion?

.....

.....

14. State any **one** advantage of leaving the land to rest for some time in Agriculture?

.....

.....

15. State **one** way a dustbin can promote sanitation in a school.

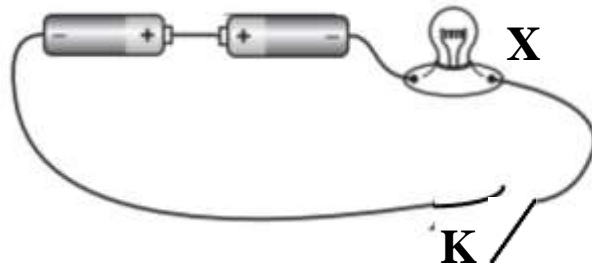
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16. How do ventilators help to promote freshness in a living house?

.....

.....

The diagram below shows a circuit. Study it and answer questions 17 and 18.



17. What will happen to the device **X** when part **K** is closed?

.....

18. Give a reason for your answer in question **17** above.

.....

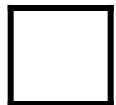
19. State any **one** way of increasing the pitch of a long drum.

.....

20. How does heat travel through space?

.....

21. Why are big boats able to float on water?



.....

.....

22. How can firewood be conserved in our home?

.....

23. Why do people remove the remaining food particles from their teeth every after a meal?

.....

24. In which way is friction useful to a butcher?

.....

25. In the space below, draw a diagram to show that the strongest forces of a magnet are found at the poles.



26. How do plants help to reduce carbon dioxide in our environment?

.....

.....

27. State the energy change that occurs at a hydro – power station.

.....

28. Name any **one** plant fibre used to make clothes.

.....

29. Give the role of the teeth during digestion.

.....

30. Which part of a fish helps it to remain buoyant in water.

.....



31. Give any **one** use of melting in our daily life.

.....

.....

32. State any **one** way of removing dirt from clothes when cleaning.

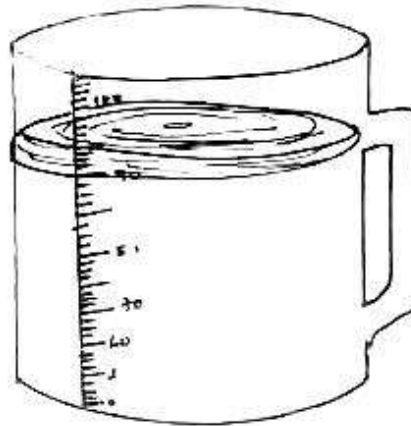
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33. Give any **one** advantage of rearing hybrids over pure exotic breed of cattle.

.....

.....

A P.5 girl put tea in a calibrated cup and she added sugar. After stirring, she observed that sugar had disappeared and the level of tea had risen. Study the illustration below and use it to answer question 33 and 34.



34. State the reason why sugar disappeared in the tea.
.....
35. Give a reason why the level of tea rose when sugar was added
.....
36. Give **one** practice that helps a farmer to monitor his animals on a farm.
.....
37. Outline **one** way of controlling the breeding of mosquitoes in a tank filled with water at home.
.....
38. Give **one** way of allowing oxygenated blood to flow towards the brain in case of fainting.
.....
39. Name any one special needs group of people in our communities.
.....
40. Give a reason why breast milk is a complete diet.
.....
.....



SECTION B – (60 MARKS)

41. (a) Define the term "crop rotation".

.....
.....

(b) State one way crop rotation helps in each of the following;

(i) maintaining soil fertility

.....

(ii) controlling pests and diseases

.....

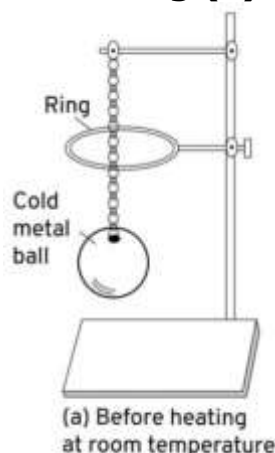
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(c) State any **one** principle followed in a crop rotation cycle.

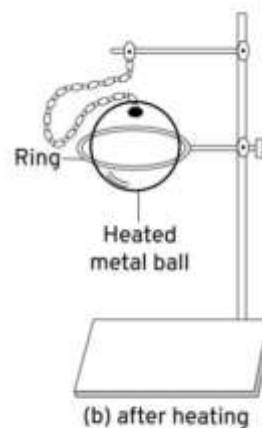
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42. **Two metallic balls were used by a P.5 class during a science lesson as shown below. Study it and answer questions that follow.**

Before heating (A)



After heating (B)



(a) Why did the metallic ball fail to go through the ring after heating?

.....

.....

(b) Give a reason for your answer in **(a)** above

.....

(c) What does the experiment prove about metals?

.....

(d) State what the class can do for the metallic ball to go through the ring again

.....

43. (a) Name **one** disease that involves the passing out of watery stool with blood stains

.....

(b) State any **one** danger of having untreated diahorrea for a long time?

.....

(c) How can the above danger be managed at home?

.....

(d) If the danger in **(b)** isn't well managed, state what can happen to the patient in the long run.

.....



44. (a) In **one** sentence, state the meaning of silting?

.....

.....

(b) State any **one** danger of silting in the environment

.....

(c) Give **two** ways in which silting can be controlled in our environment.

(i)

(ii)

45. (a) Why is an earthworm not grouped under vertebrates?

.....

(b) State any **two** uses of earth worms to the soil.

(i)

(ii)

(c) Name the body structure used by earthworms for breathing.

.....

46. (a) Give any **one** way the environment can be polluted.

.....

.....

(b) State any **two** ways polythene bags can lead to soil exhaustion.

(i)

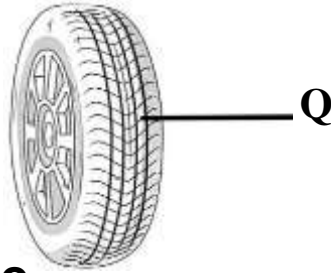
(ii)

(c) How can the government control the dangers caused by polythenes in the environment.

.....



47. The diagram below shows a tyre of a car. Study it and answer the questions that follow.



(a) Name structure marked **Q**

.....

(b) Of what advantage is Part **Q** to the tyre .

.....

(c) How does part **Q** perform its function in **(b)** above.

.....

.....

(d) State any one danger a driver is likely to face while driving a car with tyres whose structure **Q** are worn out.

.....

.....

48. At Mr. Kirigwajjo's farm, the layers have started laying eggs with soft shells.

a) What possible food ingredients are they lacking?

.....

b) Give any **two** food ingredients that must be provided in their feeds to solve the above challenge.

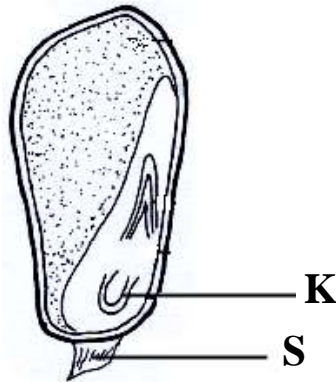
(i)

(ii)

c) Give **one** possible source of the food ingredients above.

.....

- 49. The diagram below shows part of a maize grain. Study it and use it to answer the questions below.**



a) Which system of a plant does part **K** develop into during germination?

.....

b) Give the use of part marked **S**.

.....

c) Why is the above said to be a fruit and not a seed?

.....

d) By use of a line segment show the cotyledon.



- 50. The diagram below shows a man pushing a wheel barrow with logs of wood. Study it and answer questions that follow.**



a) Name the class of lever shown above.

.....

b) Why is the above machine grouped under simple machines?

.....

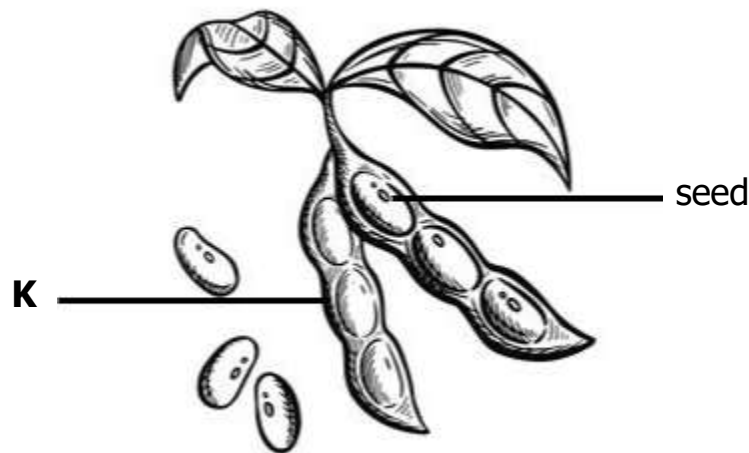
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c) How does the above machine simplify work?

.....

d) By use of a line segment, show the pivot.

51. The diagram below shows part of a mature bean plant. Study it and answer question 51.



a) Identify the structure marked **K**.

.....

b) Which part of a seed is used to attach it to structure **K**.

.....

c) How are the above seeds dispersed?

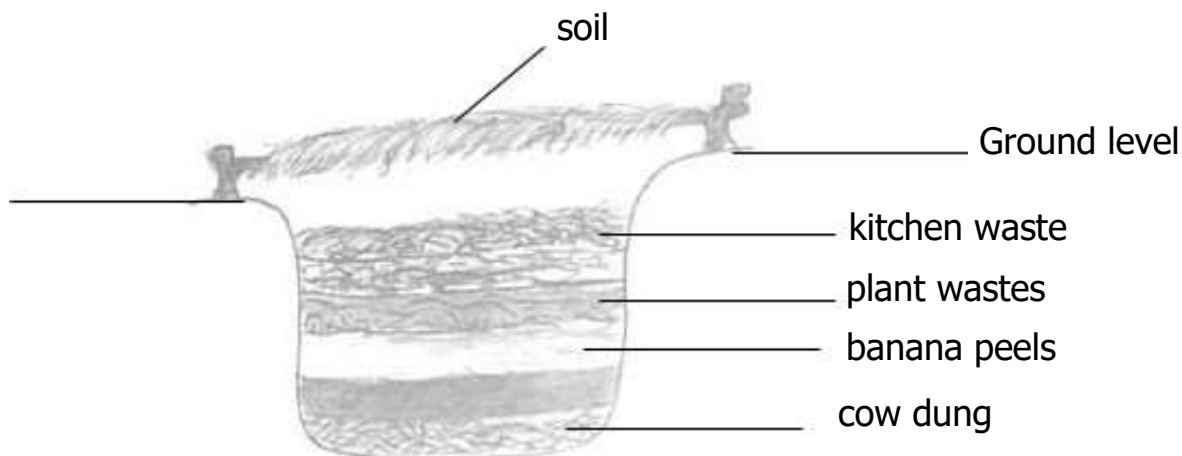
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d) How is the structure marked **K** adapted to its mode of dispersal?

.....

.....

52. The diagram below shows a method of making natural fertilizer at home. Study it and answer the questions which follow.



- a) Identify the type of natural fertilizer being made.

.....

- b) Name any **one** plant waste used in the above pit

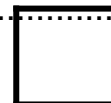
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- c) Why do farmers sprinkle water on top of the pit during the season?

.....

- d) Why are pieces of wood not added to the kitchen wastes?

.....



53. **An empty tin weighs 50g with 200cm^3 of water, the tin weighs 100g.**
Calculate the density of water. **(4marks)**

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54. (a) Name the method used to make alcohol.

.....

(b) Give any two uses of alcohol to medical workers.

(i)

(ii)

(c) State any one life skill that can safeguard you from drinking alcohol.

.....

55. **Re-arrange the steps below to get the correct order of making wet bricks.**

- Then knead the mixture of water and soil until it becomes sticky.
- Heap the kneaded soil for at least two weeks before making wet bricks.
- Dig and harrow the soil.
- Mix the soil with water to form thick mud.

(i)

.....

(ii)

.....

(iii)

.....

(iv)

.....



******END******