

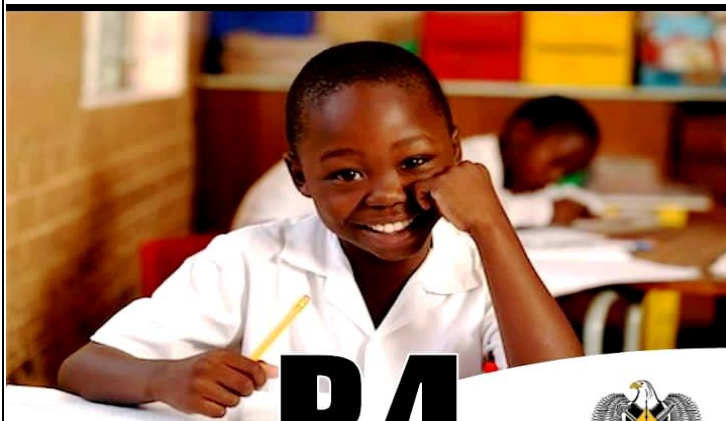


SUREKEY EXAMINATIONS BOARD PRIMARY SEVEN SPECIAL MOCK

2023

INTEGRATED SCIENCE OFFICIAL MARKING GUIDE

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P.4



SUREKEY EXAMINATIONS BOARD

**OFFICIAL COMMENCEMENT OF
LOWER PRIMARY
TRANSITIONAL
Examinations**

2023 October 16th – 19th

Let Quality speak for itself

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SUREKEY EXAMINATIONS BOARD
Presents

P.4 LOWER PRIMARY TRANSITIONAL Examinations

30,000/=
Online
Registration
Fee

2023 October 16th – 19th

The Surekey Lower Primary Certificate of Education (LPCE) Examination for the 2023 junior candidates will officially start on 16th October 2023.

THEME: "Preparing quality learners for Upper Primary."

Schools interested should register with Surekey Examinations Board before 5th June 2023. Online registration is also available at 20,000/= per junior candidate. For inquiries, contact 0700758668 / 0774088304 / 0755887056

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SECTION A: 40 MARKS

Questions **1** to **40** carry **one mark** each

1. Which type of soil retains water for a short time?

- **Sand soil**

2. Name the non diarrhoeal disease spread by the house fly to people's eyes.

- **Trachoma**

3. State any **one** way in which people care for animals at home.

- **Proper feeding**
- **Proper housing**
- **Treating animals when sick**
- **Cleaning their houses (shelter)**
- **Proper medication**
- **Vaccinating them**
- **Cleaning their feeding equipment.**

4. Identify one reason why it is important to shave hair on some parts of the body.

- **To remove hiding places for parasites like lice.**
- **To allow easy cleaning of the body.**
- **To reduce bad body smell.**

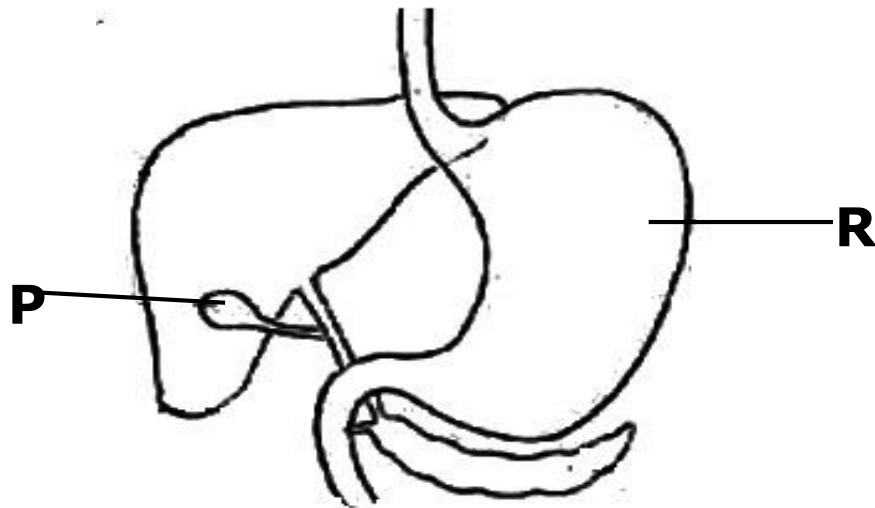
Reject: *To promote personal hygiene.*

5. Give any **one** example of biological change that causes growth.

- **Reproduction//development//flowering//fruiting//fertilization//fertilisation//germination//moulting//gaining weight//germination//life cycle (metamorphosis)**

(Reject: changing colour//ripening of fruits// hibernation//aestivation//shedding leaves//wilting/losing weight//falling sick)

The diagram below shows a part of the digestive system of a human being.
Use it to answer questions **6** and **7**.



6. Name the digestive juice found in part labeled **P**.

- **Bile juice**

7. What happens to food when it reaches part **R**?

- **Food is churned**
- **Digestion of proteins begins**
- **Food is temporarily stored.**
- **Pepsin or rennin act on food.**

8. Give any **one** way in which plants help to improve the health of people.

- **Some plants are used as herbal medicine**
- **Some plants are source of food.**

9. State any **one** way of controlling the outbreak of dysentery in the community.

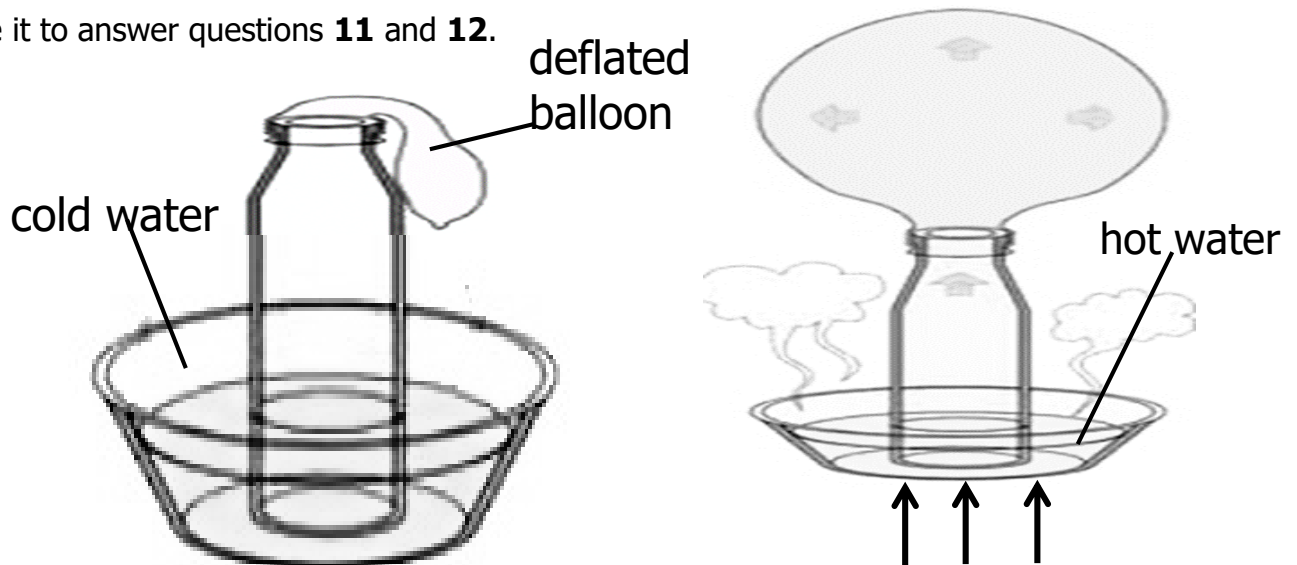
- **Proper disposal of faeces**
- **Proper disposal of rubbish.**
- **Keeping latrines clean regularly.**
- **Washing hands before eating.**
- **Boling water for drinking.**
- **Spraying insecticides to kill houseflies.**
- **Covering cooked or leftover food well.**
- **Destroying all the breeding places of houseflies.**
- **Washing with clean water and soap after visiting a latrine or toilet.**

10. How does a wheel barrow help to make work easier for people?

- **By reducing effort needed to overcome the load.**
- **By increasing the speed of carrying materials.**

The diagram below shows an experiment carried out by a P.6 class on properties of matter.

use it to answer questions **11** and **12**.



11. What does the experiment above show about heat?

- **Gases expand when heated/expansion in gases.**

12. Which state of matter is being investigated in the experiment above?

- **Gases/gaseous state/gas state/gas**

13. State the part on the VIP latrine that controls the breeding of blow flies.

- **Fly screen/screen.**

14. Why should soil be piled around the stems of an Irish potato during planting?

- **To enable the tubers grow into the soil easily.**
- **To encourage the growth of more tubers.**
- **To reduce damage by tuber pests.**
- **To prevent damage by sunshine.**

15. How is a switch important to a cow?

- **Enables a cow to chase away flies**

16. State any **one** way people can make a water source dirty in a community.

- **Grazing animals near water sources.**
- **Dumping wastes in water sources.**
- **Washing in or near water sources.**
- **Defecating and urinating in water sources.**
- **Fishing using poison.**
- **Bathing in water sources. (Reject: silting)**

17. To which group of musical instruments do shakers belong?

Percussion musical instrument

18. State any **one** activity carried out to promote maternal and child health care in the community.

- **Immunization against tetanus (immunization using T.T vaccines)**
- **Counselling of the mother.**
- **Taking children for immunization.**
- **Nutrition education.**
- **Going for antenatal care.**

19. Give a reason why the surface of a solar panel is painted black.

- **In order to absorb sun heat**

20. Apart from ringworm, name any **one** other disease caused by fungus to human being.

- **Candidiasis// athlete's foot// dhobi itch// jock itch (reject eczema)**

Note. Fungal diseases are recalled using mnemonic : DR.JAC

21. State the energy change that takes place in the dry cells when the circuit is complete.

- **Chemical energy to electrical energy (also accept chemical energy to electric energy).**

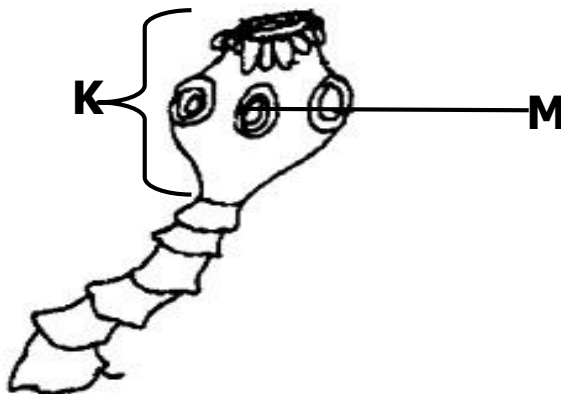
22. Which body system is affected by HIV/AIDS?

- **Circulatory system (Reject reproductive energy)**

23. Write down any **one** vertebrate that helps to control malaria at home.

- **Fish// frog/ gecko/ toad/ chameleon/ newt/ salamanders/ lizard**

The diagram below shows an intestinal worm. Use it to answer questions **24** and **25**.



24. Name the part marked **K**.

- **Scolex**

25. How is part marked **M** useful to the above intestinal worm?

- **For attachment onto the intestinal walls//for attachment //holds the tapeworm onto the ileum walls//**
(Reject for sucking/absorbing digested food/for feeding)
- **Note: Absorption of digested food is done by the porous segments/ strobili/ proglottids/ teguments.**

26. State any **one** natural cause of environmental degradation in an area.

- **Floods//earthquake//landslides//hailstorms//drought// volcanic eruptions.**

27. Give any **one** life skill that school going girls can develop to safe guard themselves against early pregnancies.

Peer resistance/ Self-awareness/ Critical thinking/ Decision making/ Coping with emotions/ Coping with stress/ Self-esteem / Assertiveness/ Problem solving/ Creative thinking/ Effective communication/ self-control.

Reject: Abstaining from sex / following PIASCY messages/ avoiding/ desisting bad peer groups

28. Write down any **one** proper method of harvesting trees.

- **Lopping// copping// pollarding**

(Reject: Selective felling (logging) is the removal of selected trees within a forest based on criteria such as diameter, height or species. Remaining tress are left in the stand.)

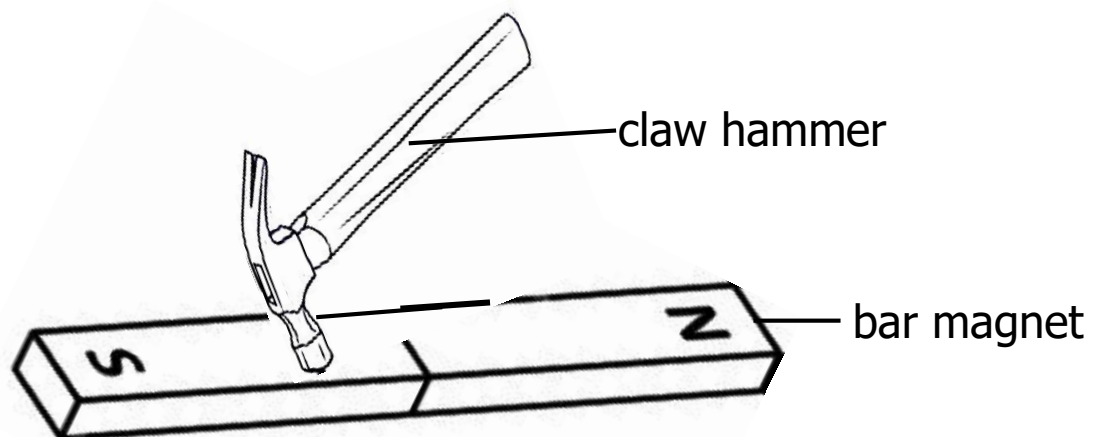
29. Mention any **one** process caused by the action of bacteria in the environment.

- **Decomposition/rotting/decaying //fermentation//nitrogen fixiation//mineralization//nitrification//dentrification//ammonification.**

30. Give any **one** danger of sharing the house with domestic animals.

- **They destroy household property.**
- **They bring vectors in the house.**
- **They cause bad smell in the house.**
- **They make noise in the house.**
- **They spread germs in the house.**
- **Their droppings make the house dirty.**

The diagram below shows a way in which a bar magnet is destroyed.
Study and use it to answer questions that follow.



31. Identify the way of destroying the bar magnet shown in the diagram.

- **Hammering/ hitting/banging a magnet**

32. How does the practice above affect the bar magnet?

- **It causes loss of magnetism of the bar magnet/it destroys the bar magnet/reduces magnetic force(energy) of the bar magnet**

(Reject: it causes demagnetisation/demagnetizes the bar magnet)

33. Give any **one** sign of ear canker in domestic rabbits.

- **Wounds on the rabbits ears.**
- **The rabbit's ears bend downwards.**
- **Scratching of the rabbits ears.**
- **Itching ears**

34. At what stage are the legumes suitable for making green manure?

Flowering stage (Reason. They have nitrogen during flowering)

35. Which method of making alcohol produces carbon dioxide?

Fermentation method

36. State any **one** way in which bee keeping is considered as an important business to bee keepers.

- **Provides self-employment.**
- **Wax candles from bee wax are sold for money.**
- **Creates jobs to people.**
- **Provides honey which is sold for money**
- **Requires less labour than other businesses**
- **A farmer gets double income.**

37. Why does a ball point pen fail to write on a piece of paper on which cooking oil is poured?

- **Provides the baby with a balanced diet**
- **Breast milk is easily digestible.**
- **Breast milk helps to promote growth of the baby.**

38. Name the part of the plant that is affected by leaching.

- **Roots/ root hairs**

39. Apart from getting natural immunity, state any **one** other way in which a baby benefits from breast milk.

- **There is less friction between a pen and a book**

(Reject: There is no friction on the book)

40. State the method that is used to separate liquids with different densities.

- **Using a separating funnel/ / decantation**

SECTION B: 60 MARKS

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

41(a) Name the type of accident that involves the following application when giving first aid.
i) Tying splints around the injured part

Fracture

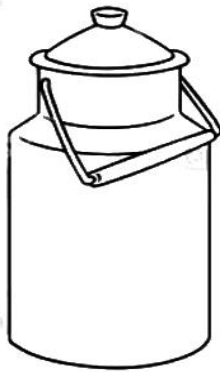
ii) Applying mouth to mouth breathing

Near drowning (reject drowning)

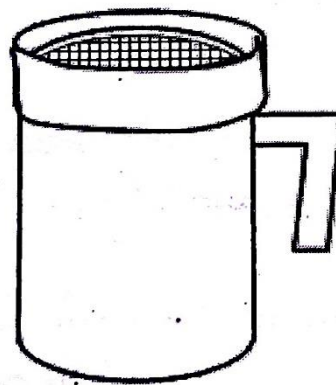
(b) Give any **two** advantages of giving first aid to accident victims.

- **Helps to save life of the casualty**
- **Controls excessive bleeding.**
- **Reduces pain**
- **Prevents further injuries**
- **Promotes quick recovery**

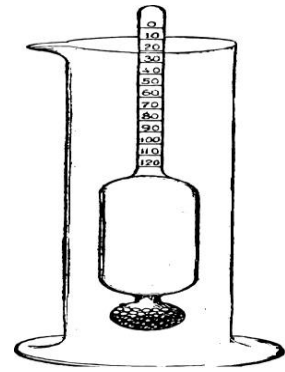
42. The diagram below shows equipment used during the production of milk on a cattle farm. Study and use it to answer the questions that follow.



A



B



C

- a) Name the equipment marked **A**.
 - **Milk can/ milking can**
- b) Which disease in cows involves the use of equipment marked **B**?
 - **Mastitis**
- c) In which way is equipment marked **C** useful to a cattle farmer?
 - **used to determine the amount of water in milk**
 - **used to detect whether fats have been removed from milk**
- d) Identify the type of cattle in which the equipment shown above are used.
 - **Dairy cattle**

43a) Write down any **two** reasons why animals make sound.

- **To look for their young ones**
- **To look for mates**
- **For protection**
- **Due to pain**
- **When they are threatened**
- **For communication**
- **To express their feelings**
- **To show happiness/**
- **Due to fear**
- **For easy identification**
- **Due to hunger**
- **To locate direction**

b) State any **two** factors that affect the speed of sound in the environment.

- **Temperature// altitude // wind// nature of the medium of transmission.**

44a) Write down any **two** groups of essential drugs.

- **Curative drugs**
- **Pain killers**
- **Preventive drugs**
- **contraceptives**

(Reject; traditional drugs/laboratory drug/manufactured drugs)

b) Give any **one** characteristic of essential drugs.

- **They are effective//available//affordable//curatives.**
(Use mnemonic CACE)

c) State any **one** condition under which essential drugs can be stored properly.

- **A place away from direct sunlight.**
- **Moist free places.**
- **Dust free places.**
- **Out of reach of children.**

45a) Write down any **two** causes of soil erosion in hilly areas.

Overgrazing //overstocking// over cultivation// deforestation// bush burning// ploughing downhill.

(b) How does terracing help to control soil erosion in hilly areas?

- **Terraces reduce the speed of flowing water.**
- **Terraces trap soil flowing with water.**

(Reject; Terracing/it reduces the speed of flowing water)

(c) Apart from terracing, state any **one** other way of controlling soil erosion in hilly areas.

- **Contour ploughing/Strip cropping /intercropping/ bunding/ planting trees/ cover cropping (Reject; terracing)**

46. A patient was not feeling well. When the nurse measured her body temperature, it had increased by 3°C

(a) What was the body temperature of the patient?

Normal temperature	=	37 °C
Increased body temperature	=	3°C
Patient's body temperature	=	37 °C +3°C
	=	<u>40°C</u>

(b) Convert the body temperature above to Fahrenheit scale.

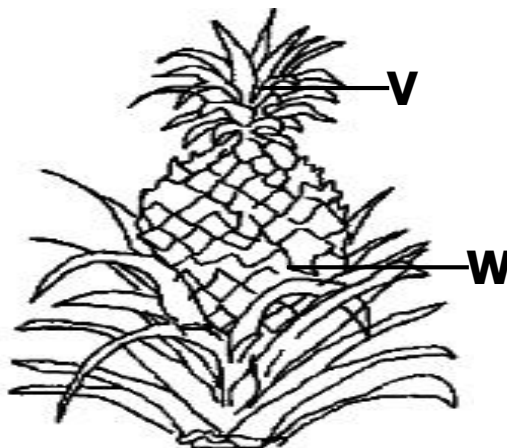
(02 Marks)

$$\begin{aligned}\text{°F} &= \left(\frac{9}{5} \times \text{°C}\right) + 32 \\ \text{°F} &= \left(\frac{9}{5} \times 40\right) + 32 \quad / \\ &= (9 \times 8) + 32 \\ &= 72 + 32 \\ &= \underline{\underline{104 \text{ °F}}}\end{aligned}$$

(c) State any **one** difference between heat and temperature.

- **Heat is measured in joules(calories) while temperature is measured in degrees.**
- **Heat is measured using a calorimeter while temperature is measure using thermometer.**
- **Heat is increases temperature while temperature makes matter or place hot a cold day.**

47. The diagram below shows a fruit crop. Study and use it to answer the questions that follow.



a) Name the part marked **V**.

- **crown**

(b) State any **one** way in which part marked **W** is important to beverage industries.

- **Used for making soda.**
- **Used for mixing wine.**
- **Used for mixing juice.**

(c) Give any **one** way in which the fruit crop above can be propagated.

- **Planting the sucker**
- **Planting the crown**
- **Planting the slips**

(d) Name any **one** other crop that can be propagated in the same way as the fruit crop above.

- **Banana //sisal**

48. In the table below, part **A** show deficiency diseases and part **B** has the body parts they affect.

Part A	Part B
Rickets	the neck
Night blindness	the teeth
Scurvy	the limbs
Goitre	the eye

Use the body parts in part **B** of the table to match the terms below.

- (a) Rickets **the limbs.**
- (b) Night blindness **the eye**
- (c) Scurvy **the teeth**
- (d) Goitre **the neck**

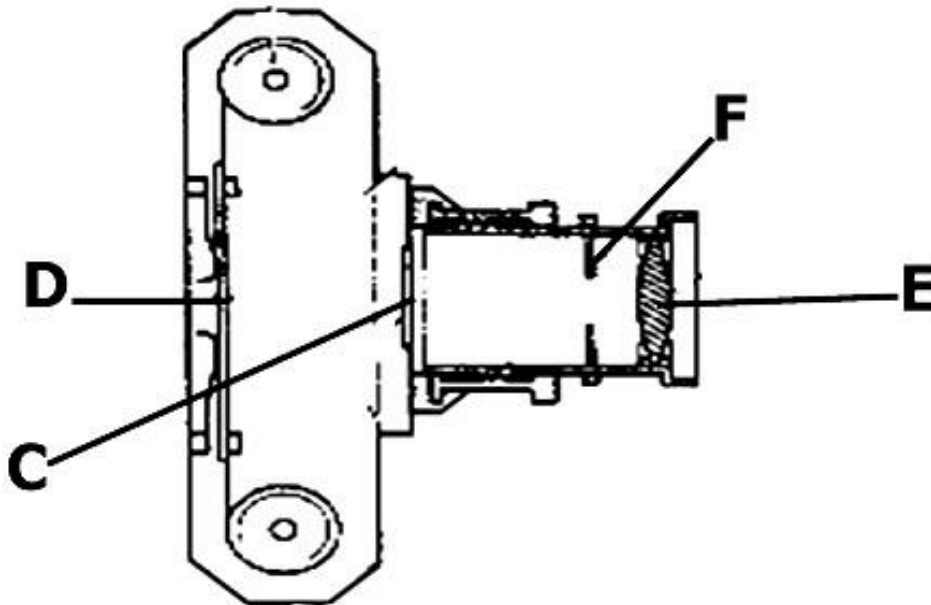
49.a) In which part of the female reproductive system of humans does each of the following belong?

- i) Ovulation **ovary. (Reject; ova/oviduct)**
- ii) Conception **oviduct/fallopian tube (reject; womb/uterus)**

b) State any **two** ways for caring for the reproductive organs.

- cleaning /washing the sexual organs regularly
- Abstaining from sex when not married
- Putting on clean underpants
- Early treatment of diseases/infections of the reproductive system
- Use of chemicals like Shana to clean the vagina

50. The diagram below shows an optical instrument. Study and use it to answer the questions that follow.



- a) Name the parts marked **C** and **E**.

- i) **C shutter**
 ii) **E convex lens/camera lens/lens**

- b) Give the function of part marked **F** on the above optical instrument.

Controls the amount of light entering the camera.

- c) Which part of the human eye has the same function as part marked **D** on the optical instrument above?

The retina.

51. The table below shows some common pests and their effects on plants. Complete it correctly

Crop pest	Crop affected	Part of crop affected
Banana weevils	Bananas	i) <u>Stem/corm</u>
<u>Birds/ locusts/ caterpillars/armyworms</u>	Maize	Maize stalk, leaves, seeds
Bean weevils	ii) <u>Beans</u>	Seeds, leaves
<u>Monkeys/moles/rats/ap hids/caterpillars/locusts /armyworms</u>	Ground nuts	Seeds,leaves

- 52a) State any **one** condition that can lead to the outbreak of Newcastle disease in poultry.

- **Contaminated water and food**
- **Unhygienic poultry house.**
- **Overcrowding of birds.**
- **Infection from other fowls.**

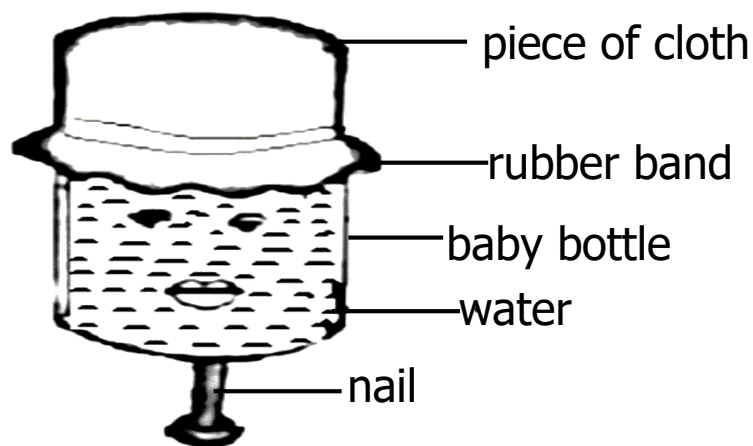
b) Mention any **two** signs and symptoms of Newcastle disease in poultry.

- **Green diarrhea**
- **Staggering**
- **Coughing**
- **Dropping wings and bending of the neck**
- **Mucus discharge from the mouth**
- **Loss of appetite**
- **Moulting of feathers**
- **Difficulty in breathing**

Give any **one** way in which a poultry farmer can prevent the outbreak of Newcastle disease in poultry.

- **Vaccinate the birds regularly**
- **Keep the coop clean**
- **Kill and bury infected birds**
- **Disinfect the coop regularly**
- **Cull the infected birds**

53. The diagram below shows a model set up to demonstrate a certain body condition in a baby. Study and use it to answer the questions that follow.



54a) Identify the condition demonstrated by the model shown above.

Dehydration

b) What does each of the following represent on the model above?

- i) Baby bottle **baby's head/head**
- ii) Piece of cloth **fontanelle/soft spot on the head**
- c) State what happens to the piece of cloth when the nail is removed.
It will become sunken

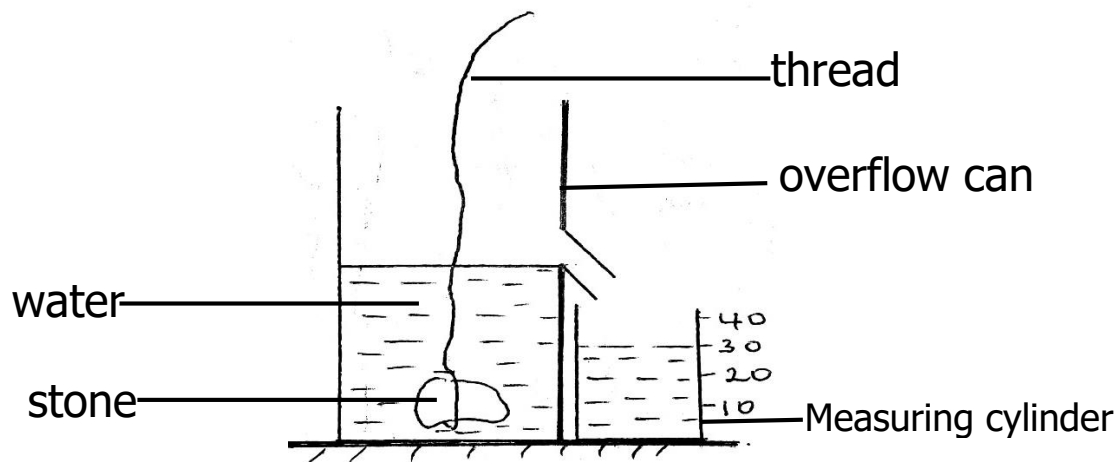
54a) Write down any two examples of swimming birds in the environment.

- **Ducks/penguins/pelicans/coots/geese/swans/comororants**

b) State the importance of the following features to swimming birds;

- i) spoon shaped beak
 - **For sieving food from water or mud.**
- ii) layer of fats
 - **Keeps the birds warm in water.**

55. Given that the volume of the stone is 30cc. Arrange equipment below by drawing to show the amount of water displaced by the stone.



Note; any set up without labels carry 3 marks

Reject any of these

