



SUREKEY EXAMINATIONS BOARD



**2024 PRE-MOCK
INTEGRATED SCIENCE
OFFICIAL MARKING GUIDE**

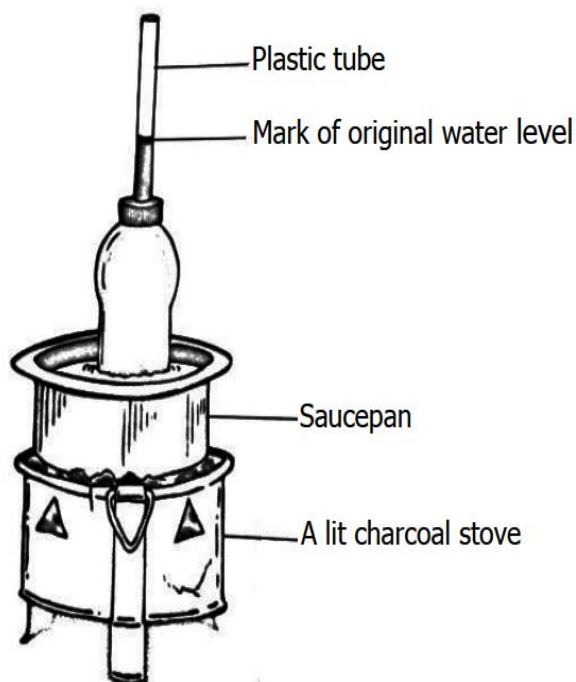
2024 Surekey Examinations Board 0757-451425 / 0771356789

SECTION A: 50 MARKS

1. Name the class of food that is suitable for people quarrying stones.
 - **Carbohydrates**
2. State any **one** factor to consider when selecting a breed of goats to rear at home.
 - **Purpose of rearing**
 - **Production rate**
 - **Adaptability to climate**
 - **Resistance to diseases**
 - **Market demand**
 - **Feed availability**
3. Give any **one** characteristic of seeds that have one cotyledon.
 - **They store food in the endosperm**
 - **They undergo hypogeal germination**
4. Give any **one** method that people can use to store sound.
 - **Mechanical method**
 - **Electromagnetic method**
 - **Magnetic method**

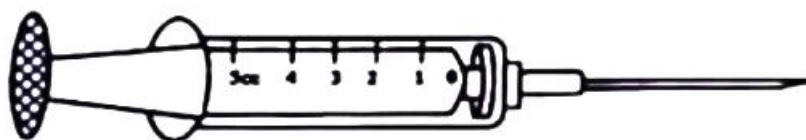
(Reject recording and notation)
5. How is the pancreas useful during food digestion in the human body?
 - **The pancreas produces pancreatic juice.**
6. State any **one** way in which scabies can be controlled among school children.
 - **Avoid body contact with an infected person.**
 - **Regular bathing.**
 - **Avoid sharing towels, sponges, beddings.**
 - **Washing clothes.**
 - **Ironing clothes**
 - **Early treatment.**
7. Give any **one** role of school children in promoting PIASCY programme at school.
 - **Designing posters with PIASCY messages.**
 - **Educating fellow pupils about body changes at puberty.**
 - **Reciting poems about PIASCY messages.**
 - **Acting drama about PIASCY messages.**
8. Name the part of the respiratory system that helps to prevent choking.
 - **epiglottis**
9. State the reason why a basin is able to hold more water than a cup.
 - **A basin has a larger surface than a cup/ a basin is bigger than a cup.***(Reject; answer without comparison or comparison with a pronoun)*
10. How does hookworm infestation lead to anaemia in human?
 - **Hook worms feed on blood.**
11. State any **one** way in which wind is helpful to a child flying a kite.
 - **Wind pushes the kite in air.**
 - **Wind exerts more pressure to a kite in air.**

The diagram below shows an experiment carried out by primary five pupils to demonstrate the behaviour of a certain state of matter. Use it to answer questions **12** and **13**.



12. Name the state of matter demonstrated in the experiment above.
 - **liquid**
13. State the reason why primary five pupils demonstrated the experiment above.
 - **To show that liquids expand when heated.**
14. In which way are ripe pineapples useful to a person brewing alcohol?
 - **Ripe pineapples are used to extract fruit juice which is fermented to produce alcohol.**
15. State any **one** factor that can lead to rotting of crops in the garden.
 - **Floods / pest damage / crop diseases / piercing fruits or tubers.**
16. Name the disease transmitted by rat fleas to people.
 - **Bubonic plague.**

The diagram below shows an equipment found on a cattle farm. Use it to answer questions **17** and **18**.



17. Name the equipment shown in the diagram above.
 - **Syringe / inseminating syringe**
18. Give any **one** cattle management practice that involves the use of the above equipment.
 - **Artificial insemination / vaccination**

19. Which agent of soil erosion is controlled by terracing land?
 - **Flowing water.**
20. Give any **one** factor that can make an individual to lack water in his/her body.
 - **Severe diarrhoea**
 - **severe vomiting**
 - **severe burns or scalds.**
21. Name any **one** bone that forms the joint at the elbow.
 - **Humerus**
 - **Ulna**
 - **radius.**
22. Give any **one** method that can be used to separate liquid mixtures.
 - **Fractional distillation**
 - **Filtration**
 - **using separating funnel**
 - **decantation.**
23. State any **one** cause of bad odour in an individual.
 - **Failure to bathe//body changes//putting on dirty clothes**
 - **wearing wet shoes and stockings**
 - **putting on the same clothes repeatedly without washing.**
24. Mention **one** way in which charcoal is useful to a person filtering water.
 - **Charcoal removes toxins and smell from water.**

The diagram below shows a head of a black mamba. Use it to answer questions **25** and **26**.



25. Name the part marked **X**.
 - **Forked tongue.**
26. Give any **one** way in which part marked **Y** is useful to a black mamba.
 - **For injecting venom into an enemy.**
27. State any **one** way in which the spread of polio can be controlled.
 - **Immunizing children with polio vaccine// Drinking boiled water.**
 - **Eating safe food//Spraying insecticides to kill cockroaches.**
28. Why does a ball point pen fail to write on a piece of paper smeared with jelly?
 - **There is less friction between a piece of paper and a ball point pen**
29. Apart from gravity, state any **one** other factor that determines the weight of a brick.
 - **Nature of the object //Material from which an object is made**
 - **Mass of an object.** (*Reject; size of an object*)
30. State any **one** effect of eating contaminated food to human health.
 - **Causes diarrhoeal diseases**
 - **Causes food poisoning.**
31. Which part of an insect has the same function as the lateral line of a fish?
 - **Feelers / antennae.**

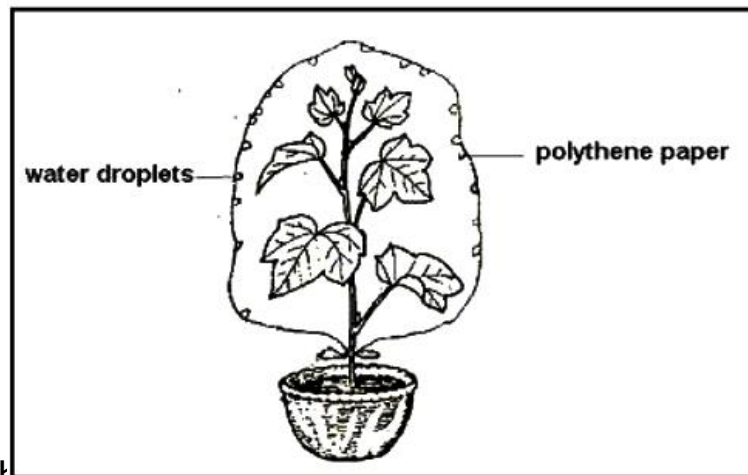
32. Give any **one** way in which a primary four pupil can care for his/her nose.
- **Washing the nose**
 - **Removing mucus**
 - **Avoid nose pricking.**
33. State any **one** factor to consider when selecting a site for building a residential house.
- **Drainage of the area**
 - **Distance from water supply**
 - **Distance from the road**
 - **Accessibility to electricity**
 - **Security of the place.**
34. Name the substance that protects the skin from strong radiations from the sun.
- **Melanin.**
35. Write down any **one** activity that can be done to control weather disasters in an area.
- **Planting trees**
 - **Conserving swamps**
 - **Conserving forests.**
36. Name any **one** form of energy that can be reflected.
- **Light energy**
 - **Heat energy**
 - **Sound energy.**
37. State any **one** characteristic of seeds dispersed by water.
- **They have spongy mesocarp.**
 - **They have hollow mesocarp.**
 - **They have hard testa to prevent the entry of water.**
 - **They are light to float on water.**
 - **Their mesocarp has air spaces.**
38. Give any **one** reason why a porcupine is grouped under rodents.
- **It has long tails.**
 - **It has well developed incisor teeth.**
 - **It has sharp claws to dig up root crops from the ground.**
39. Apart from changes of states of matter, name any **one** example of physical changes in the environment.
- **Chopping wood//Breaking an egg//Volcanic eruption**
 - **Landslides//Earthquake//Dissolving of solutes.**
40. Give any **one** way in which an individual can promote health lifestyles.
- **Doing regular exercise.**
 - **Feeding on a balanced diet.**
 - **Avoid smoking and alcoholism.**
 - **Going for regular medical checkups.**

SECTION B: 50 MARKS

41. (a) Give the meaning of the following terms;
- (i) Near drowning:
Near drowning is a condition in which one's lungs are filled with water and fails to breathe but not yet dead.
 - (ii) Fainting:
Fainting is the sudden lose of consciousness for a short time.
- (b) Write down any **two** pieces of advice you would give to your fellow pupils to prevent near drowning.
- **Covering water tanks and deep pits.**
 - **Wearing life jackets when sailing water.**
 - **Acquiring swimming skills.**
 - **Fencing water sources.**
 - **Remove the baby from water after bathing.**
 - **Avoid playing near water bodies.**
 - **Relocating to other areas in case of flood outbreak.**
42. Name the type of natural fertilizer obtained from;
- (i) Household rubbish: **Composite manure.**
 - (ii) Animal dung: **Farmyard manure.**
 - (iii) Dry grass: **Organic mulches.**
 - (iv) Beans leaves: **Green manure.**
43. A primary four boy wanted to demonstrate a certain process in plants. He wrapped a transparent polythene bag around a plant shoot and put it in sunshine for 12 hours. After 12 hours, droplets of water were seen on the sides of the polythene bag.
- (a) Identify the plant process the boy demonstrated in the above experiment
 - **Transpiration.**
 - (b) Why did the boy use a transparent polythene bag for the Cexperiment?
 - **To easily observe/see the droplets of water on the sides from the plant shoot.**

- (c) In the space provided below, draw a diagram to show the experiment demonstrated by the boy about the plant process.

(02 Marks)



44. The diagram is a source. Study and use it to answer the questions that follow.



- (a) Which energy resource enables the device above to function?
- **Wind**
- (b) Give any **one** way in which the device is useful to people.
- **For safe landing on the ground from the aeroplane.**
 - **For sky diving and paragliding.**
 - **For delivering cargos.**
- (c) Apart from the device above, name any **two** other devices that use the energy resource mentioned in (a) above to function.
- **Wind mill//Dhows//air balloons**
 - **weather balloons.**

45. (a) Write down any **two** materials transported in the body during blood circulation.
- **Food nutrients//Heat//Hormones//Body wastes/Antibodies**
- (b) Which chamber of the heart is made of thick walls?
- **Left ventricle. (Reject ventricle alone)**
- (c) Why is it important for the doctor to monitor the pulse rate of a patient all the time?
- **To know whether the person is still dead or alive.**

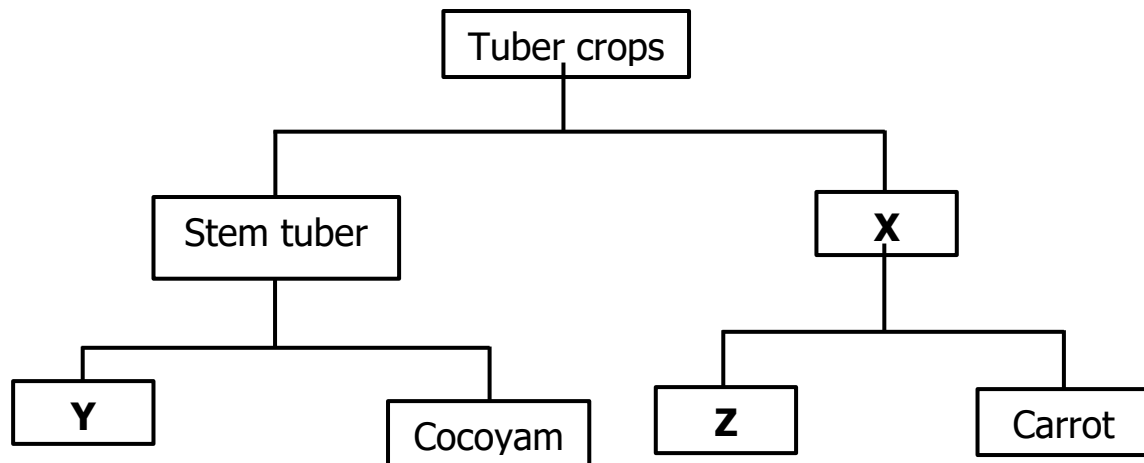
46. The table below shows changes of state of matter in part A and how they take place in part B.

Part A: Changes	Parts B: How they take place
Evaporation Melting Freezing Condensation	Steam changes to water Water changes to ice Water changes to steam Ice changes to water

Match correctly the changes of state of matter with the way they take place in the spaces below.

- (i) Evaporation: **Water changes to steam.**
- (ii) Melting: **Ice changes to water.**
- (iii) Freezing: **Water changes to ice.**
- (iv) Condensation: **Steam changes to water.**
47. (a) Give any **two** sources of iron to a breast-feeding woman.
• **Meat//Liver//Nuts//Grains//Fish //Sea food//Eggs**
- (b) State the reason why the breast-feeding woman should eat food rich in iron.
• **To replace the lost iron during breast feeding.**
- (c) Give **one** way in which the breast-feeding woman can increase milk production in her mammary glands.
• **Taking a lot of fluids like fruit juice.**
• **Proper nutritions**
• **Taking herbal supplements and medications.**
48. The doctor prescribed tablets as **2 x 3** for the patient. The patient instead took **1 x 3**.
- (a) What term is used to mean the habit practised by the patient?
• **Under dose.**
- (b) State any **two** possible reasons why the patient practised the habit above.
• **Bitterness of the drug** • **Fear of taking medicine**
• **Bad smell of the drug**
• **Bad side effects of the drug in one's body.**
- (c) Give any **one** effect of the above habit practised by the patient to his/her health.
• **It reduces drug resistance.**
• **It reduces germ resistance in the body.**

49. The table below shows groups of tuber crops. Study and use it to answer the questions that follow.



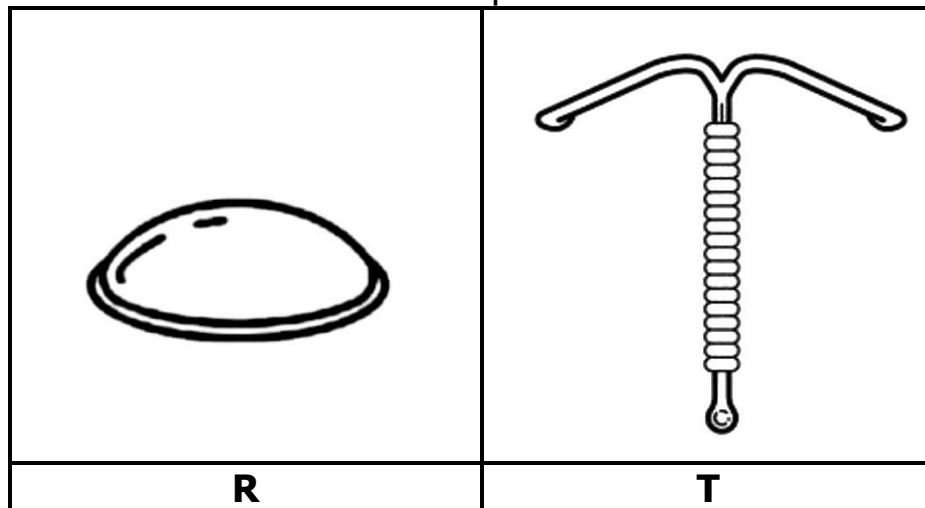
- (a) Name the group of tuber crops at **X**.
- **Root tubers.**
- (b) Give **two** tuber crops that can be put at **Z**.
- **Sweet potatoes//beet roots//parsnips//cassava**
 - **Radishes//turnips.**
- (c) How is the propagation of a carrot different from that of the tuber crop at **Y**?
- **A carrot is propagated by planting seeds while the tuber crop at Y is propagated by planting the stem tuber.**
50. (a) Name the type of pollination that occurs in;
- (i) pawpaw plant: **Cross pollination.**
- (ii) tomato plant: **Self pollination.**
- (b) State any **two** differences between flowers pollinated by insects and those pollinated by wind.
- **Flowers pollinate by insects have bright petals while those pollinated by wind have dull petals.**
 - **Flowers pollinated by insects produce few pollen while those pollinated by wind produce a lot of wind.**
 - **Flower pollinated by insects produce sticky pollen while those pollinated by wind produce light pollen.**

51. (a) What is meant by the term infectious diseases?
- **Infectious diseases are diseases that are transmitted from an infected person to a healthy person.**
- (b) Write down any **two** infectious diseases that spread through inhaling contaminated air.
- **Whooping cough // Influenza // Measles // COVID 19**
 - **Tuberculosis.**
- (c) State any **one** way of controlling airborne diseases.
- **Isolating infected person // Wearing a face mask**
 - **Covering the nose with a handkerchief when sneezing or coughing // Immunising children // social distancing**
 - **Proper ventilation of the house.**
52. (a) Name the **two** examples of temporary magnets.
- **Induced magnets** (Reject stroke magnets)
 - **Electromagnets.**
- (b) State any **two** characteristics of magnets.
- **Magnet field lines move from the North pole to the South pole.**
 - **Like poles of magnets repel while unlike poles attract each other.**
 - **A freely suspended bar magnet rests facing North-South direction.**
 - **Magnetism is strongest at the poles of a magnet.**
 - **Broken pieces of magnets become independent magnets.**
 - **Magnetism passes through a non-magnetic material.**
53. The sentences below show the steps taken to put out petrol fire using a fire extinguisher in wrong order.
- (a) Squeeze the handle.
- (b) Sweep from side to side.
- (c) Pull the pin.
- (d) Aim at the base of the fire.

Rewrite the above sentences to show the correct order of using a fire extinguisher to put out fire in the spaces provided below;

- **Pull the pin**
- **Aim at the base of the fire**
- **Squeeze the handle**
- **Sweep from side to side** (Mnemonic used; **PASS**)

54. The diagrams below show devices used during birth control in women. Study and use them to answer the questions that follow.



- (a) Name the birth control device marked **R** and **T**.

R : Diaphragm

T : Intra-Uterine device (IUD)

- (b) State **one** way in which device marked **R** is useful to a woman during birth control.
- **It prevents semen from entering the uterus.**
- (c) Which element of Primary Health Care (PHC) is promoted using the devices above.
- **Family planning.**

55. (a) Write down any **two** examples of native beehives.

- **Kigezi bee hives // tin bee hives // dugout log bee hives**

- (b) State any **two** ways in which a bee keeper can prevent contamination of honey after harvesting.

- **Keeping honey in clean containers.**
- **Keeping honey in clean places.**
- **Ensuring that all equipment and tools used in honey extraction are clean.**
- **Store honey in food grade containers made of glass or stainless steel.**
- **Ensure storage areas are free from pests like ants and rodents.**
- **Regular maintenance of extraction and storage equipment.**

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