



**SUREKEY EXAMINATIONS BOARD**

**PRIMARY SEVEN PRE-REG  
EXAMINATIONS**

**IINTEGRATED SCIENCE  
OFFICIAL MARKING GUIDE**

**2022**

**0700-758668 / 0774-088304**

1. **Name the body organ that enables a primary one pupil to sense the nice smell from the kitchen.**

The nose / nose

2. **State one way of controlling mosquitoes at the larva stage.**

- Pouring oil on the surface of stagnant water
- Draining stagnant / still water
- Keeping fish in nearby ponds

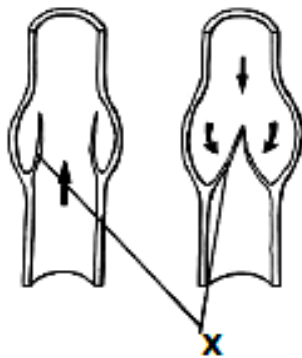
3. **What type of change is destructive to iron and steel metals?**

-Chemical change (*Reject: rusting / corrosion*)

4. **Name the class of food recommended by Mr. Agaba who is a brick maker to eat.**

-Carbohydrates (*Reject: Go food / energy giving food*)

**The diagram below shows blood vessels. Use it to answer questions 5 and 6.**



5. **Identify the type of blood vessel shown above.**

-Vein

6. **State function of structures marked X in the above blood vessel.**

-Prevent the backflow of blood // Enable blood to flow in one direction

7. **How is a swim bladder useful to a fish?**

Keeps the fish buoyant / Keeps the fish afloat on water / Prevent the fish from sinking in water.

8. **Which part of a caterpillar has the same function as the hard shell of a snail?**

-Prickly hair (*Reject: hooks // spine*)

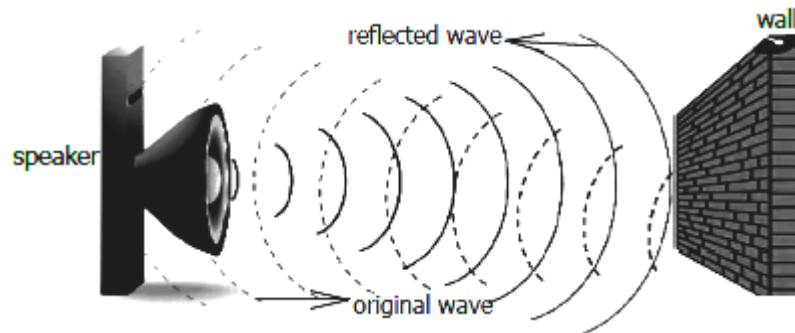
9. **State the importance of some water that remains in a toilet bowl after flushing.**

-Prevents smelly air from the septic tank from coming out of the toilet // Keeps the toilet hygienically clean. // Prevents houseflies from reaching faeces.

10. **Why does water exist in all three states of matter?**

-The physical properties of water change with change in temperature.

**The diagram below is of a property of sound. Use it to answer questions 11 and 12.**



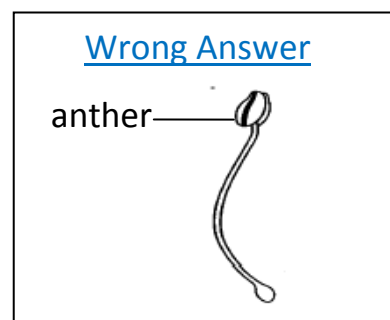
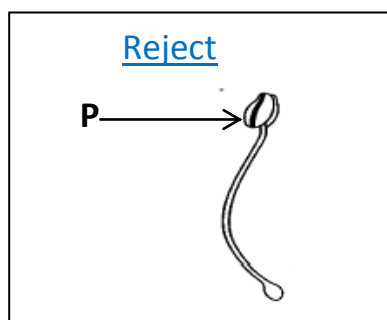
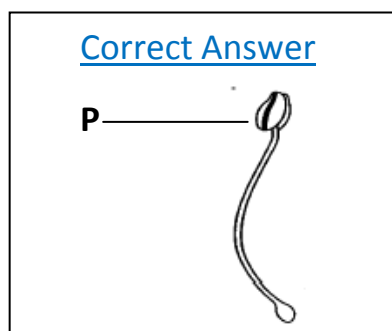
- 11. State the property of sound shown above.**  
-Reflection of sound / Sound can be reflected / bounced / An echo
- 12. In which one way is the above property of sound useful to bats?**  
-Enables bats to locate food // find their way
- 13. In which way do bacteria help in the production of yoghurt?**  
-They ferment milk / By fermenting milk
- 14. Give any one example of a farm animal that is castrated.**  
-Bull // ram // boar // buck // Billy goat (*Reject: pig // goat // sheep // cattle / cow*)
- 15. Apart from spreading diarrheal diseases, state one other way houseflies are dangerous to man.**  
-They spread chlamydia germs to people's eyes  
- they spread trachoma to people's eyes (*Reject: They contaminate food. This is because contaminated food leads to diarrheal diseases*)
- 16. Which characteristic makes sand soil best for building houses?**  
-It allows water to drain faster from the wall  
-It is resistant to chemicals.
- 17. How is a humming bird different from other birds in terms of flight?**  
-A humming bird can fly both forward and backwards while other birds only fly forward
- 18. Give the major cause of child poisoning at home.**  
-Storage of chemical substances near children's reach
- 19. State any one way an individual can participate in primary Health Care.**  
-Sharing health information.                      -Observing personal hygiene.  
-Attending community health meetings          -Use of latrines whenever possible.  
-Protecting food and water from contamination
- 20. Give any one way early planting is advantageous to a crop farmer.**  
-Helps to control crop pests                      -Helps to improve crop yields  
-A farmer gets good market for the produce // Crops get enough rainfall.

21. **State any one danger a primary six girl can face while putting on dirty Knickers.**  
 -Leads to bad smell  
 -Leads to candidiasis
22. **How does a dog benefit from bringing out its tongue while running?**  
 -Helps to cool its body temperature.
23. **In which part of the female reproductive system does conception take place?**  
 -Oviduct / fallopian tube (*Reject womb /uterus*)
24. **Give one biological method of controlling crop pests in the garden.**  
 -Keeping silkworms in the garden  
 -Keeping beetles in the garden  
*(Reject other responses like crop rotation, spraying using pesticides. Use of mouse traps etc.)*

**The diagram below shows a reproductive part of a flower.  
 Use it to answer the questions 25 and 26.**



25. **Identify the reproductive part of the flower shown above.**  
 -Stamen( *Reject: male part*)
26. **Use letter P to label the part that produces substances similar to sperms in animals.**

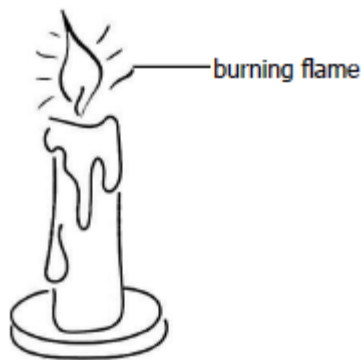


**NOTE:** In science, arrow heads are not used when labeling diagrams.

27. **How does salting help in the preservation of meat?**  
 -Salt dehydrates meat/ salt drains moisture from meat  
*(Reject salting/ it dehydrates meat)*

- 28. Why is boiling water considered the best method of making water safe for drinking?**  
 -Boiled water doesn't contain any germs in it.// Boiling kills all germs in water.  
 -It completely kills all germs in water
- 29. Name the sexually transmitted diseases that can lead to madness at later stages if not treated early?**  
 -Syphilis
- 30. What happens to the weight of an object when immersed in water?**  
 -Reduces /decreases/becomes less/ an object weighs less.
- 31. Why is polio vaccine given more than once to children?**  
 -To strengthen the children's immunity against polio disease/poliomyelitis.
- 32. How are the gills of a fish different from the gills of a mushroom in terms of their function?**  
 -Gills of a fish are used for breathing while gills of a mushroom produce spores.

**The diagram below is of a burning candle wax. Use it to answer questions 33 and 34.**



- 33. Why would the flame go off when the candle wax is covered with a container?**  
 -Oxygen that supports burning would be used up.
- 34. Give any one danger of using a candle wax at home.**  
 -Can burn the house// can burn the households// can cause burns.
- 35. A part from debeaking, state any one other way of preventing egg eating in poultry**
- |                                      |                              |
|--------------------------------------|------------------------------|
| -Provision of feeds rich in calcium. | -Provision of enough feeds.  |
| -Timely picking of eggs.             | -Make laying boxes dark.     |
| -Proper stocking.                    | -Provision of feeds in time. |
| -Hanging vegetables in the coop.     | -Provide enough space.       |
- 36. How is a worker Bee able to carry pollen from flowers?**  
 -It has a corbicula (pollen basket) on its hind leg where pollen is carried from.

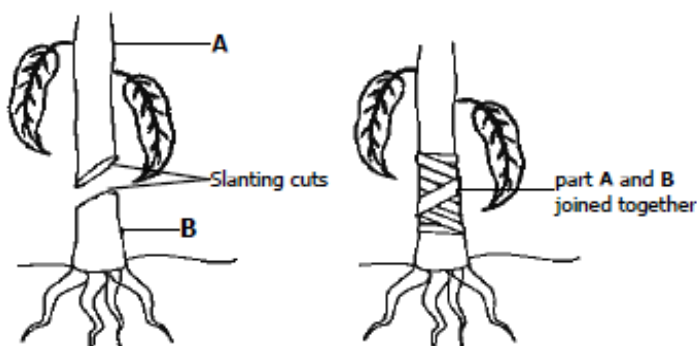


37. **Name the gas used to leguminous plants to make proteins.**  
-Nitrogen (*Reject: carbon dioxide and oxygen*)
38. **Which instrument is used to measure air pressure?**  
-Barometer
39. **Why does salt disappear when put in water?**  
-Salt is soluble in water/ salt dissolves in water
40. **What structure is used by a causality to support him/her while walking in case of a fractured leg?**  
-Crutch (*Reject: clutch // walking stick // white cane // echo stick*)

### SECTION B: 60 MARKS

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

41. (a) **What type of change is evaporation?**  
-Physical change
- (b) **Give any two factors that affect the rate of evaporation.**  
-Size of the surface      -Humidity      -Temperature  
-Amount of heat      -Presence of wind
- (c) **State any one way in which evaporation is applied in our daily life.**  
- Helps in rain formation.  
- Helps in cooling.  
- Helps to separate salt / sugar from sand.  
- Helps in mining of salt from lakes.  
- Helps in drying of clothes.
42. **The diagram below shows a method vegetative propagation. Use it to answer the questions that follow.**



- (a) **What method of vegetative propagation is shown above?**  
-Grafting
- (b) **Name the part marked A.**  
-Scion

**(c) Apart from the above method, state any one other method of vegetative propagation.**

- Marcotting                      -Layering
- Budding                        -Stem cutting

**(d) Give any one advantage of vegetative propagation.**

- The plant matures in a short time.
- Plants need less attention
- The young plants get food from the parent plant
- Only one plant is needed to produce offspring
- Does not involve agent of pollination or dispersal
- Helps to maintain good plant characters
- Seedless plants are propagated
- Controls unnecessary distribution of plants in an area.
- Helps plants to escape risky seedling stages

**43. (a) Give the role of each of the following during digestion.**

**(i) Saliva**

- Lubricates food for easy swallowing
- Softens and moistens food to prevent constipation
- Cools food in case it is hot
- Contains ptyalin that acts on cooked starch

**(ii) Tongue**

- Rolls food into a bolus for easy swallowing
- Pushes food to the gullet for swallowing
- Turns food for easy chewing
- Mixes food with saliva

**(b) State any two characteristics of enzymes.**

- Form same end products                      -Specific in nature
- Proteins in nature                                -Work best under optimum temperature
- Work in small amounts

**44. (a) How does prolonged breast feeding promote family planning home?**

- Delays the next pregnancy
- Delays monthly ovulation.

**(b) Apart from prolonged breast feeding, name any two other methods of family planning**

- Abstaining from sex                      -Withdrawal method.                      -Rhythm method
- Use of condoms                              -Use of birth control pills
- Use of birth control injection              -Tuballigation                              -Vasectomy etc. ...

**(c) Give any one advantage of family planning.**

- Prevents unwanted pregnancy
- Prevents frequent births
- Prevents the mother from wearing off quickly due to child birth
- Limits poverty in the family
- Allows the mother to rest and build up her body.

**45. (a) Mention two methods of harvesting rain water at home.**

- Surface runoff harvesting
- Rooftop rainwater harvesting.

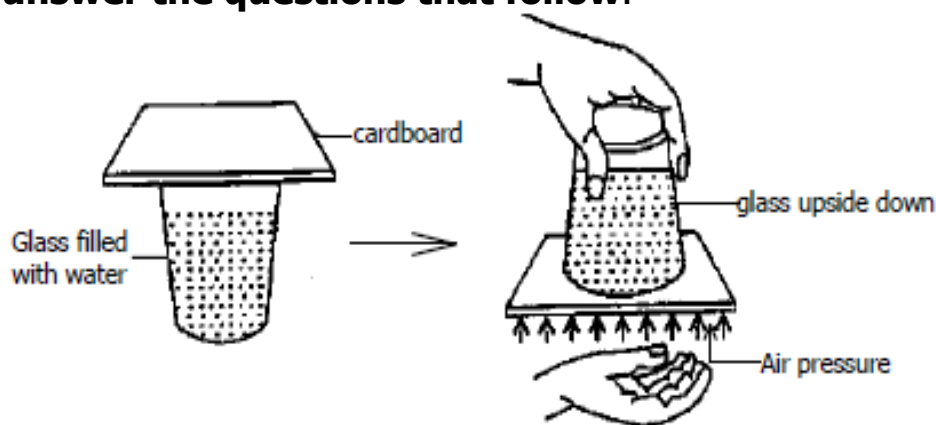
**(b) Give any one way in which water is useful to a mechanic.**

- For cooling the engine
- For washing tools and hands.
- For detecting punctures on tubes

**(c) State any one danger of water to people.**

- Can lead to drowning
- Near drowning
- Can lead to floods.
- Can destroy people's property.
- Can lead to the spread of germs in the body.
- Can lead to choking.
- Spreads petrol fire to other places in case it is used to put it out.

**46. The experiment below shows a property of air. Study it carefully and use it to answer the questions that follow.**



**(a) Identify the property of air shown above.**

- Air exerts pressure

**(b) Why doesn't water pour out of the glass?**

- The pressure exerted by the air outside the glass is equal to the pressure exerted by water inside the glass.

**(c) State the role of the cardboard in the above experiment.**

- Prevents water from pouring.

**(d) Give any one application of the above property of air in our daily life.**

- Drinking soda using a straw
- Flushing toilets
- Boreholes
- Drawing water from taps
- Blowing up balloons
- Inflating tyres
- Breathing
- Spraying agrochemicals
- Playing wind musical instruments



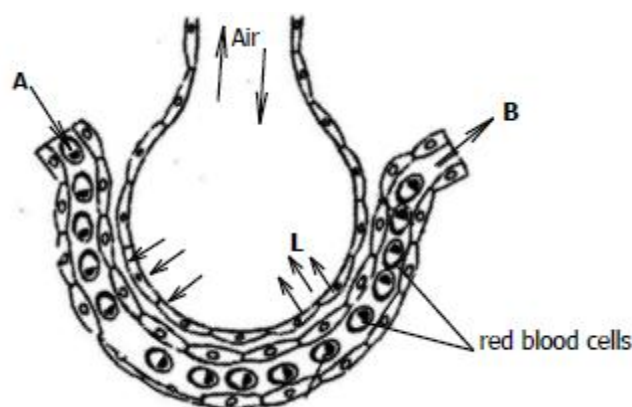
47. (a) Name the group of invertebrates to which each of the following animals belongs.
- (i) Star fish -Echinoderms
- (ii) Jerry fish -Coelenterates
- (b) State any two ways in which invertebrates help to promote people's health.
- Some are eaten by people
  - Source of proteins when eaten.
  - Some feed on insect vectors.

48. The table below shows farm practices, animals and function of the practice, Study and complete it correctly.

PRACTICE	ANIMAL	FUNCTION OF THE PRACTICE
(ii) .....	piglets	Prevents injuries on the teats of the sow
(i) Docking	Sheep	.....
(iv) Steaming up	Cows, nanny goats, sows, ewe.	.....
(iii) Dehorning	.....	Reduces injuries among animals

PRACTICE	ANIMALS	FUNCTION OF THE PRACTICE
Docking	Sheep	To ease mating
Tooth clipping	Piglets	Prevents injuries on teats of the sow
Dehorning	Cattle // Goats	Reduces injuries among animals
Steaming up	Cows, nanny goats, sows, ewe	<ul style="list-style-type: none"> <li>▪ Prolongs milk production</li> <li>▪ Enables the foetus to grow healthy</li> <li>▪ Increases the manufacture of colostrum</li> <li>▪ Prevents low birth weight or still birth</li> </ul>

**The diagram below shows part of the respiratory system. Use it to answer the questions that follow.**



**(a) Identify the part of the respiratory system shown above.**

-alveolus / air sac

**(b) Name the gas marked with letter L.**

-Carbon dioxide

**(c) In which one way is the above part adapted to its function?**

-Have thin walls to allow gases diffuse through easily

-Surrounded by a network of blood capillaries which supply them with blood

-Many in number which increases the rate of gaseous exchange

**(d) How is blood in A different from that in B?**

-Blood in A is deoxygenated while blood in B is oxygenated

**(a) State any two effects of alcohol to an individual.**

- Leads to liver diseases

- Leads to brain damage

- Leads to self-neglect

- Slows down the action of the brain

- Leads to forgetfulness

- Leads to loss of jobs

- Leads to loss of respect for laws

- Leads to poverty

**(b) Give any two ways in which a health worker uses alcohol.**

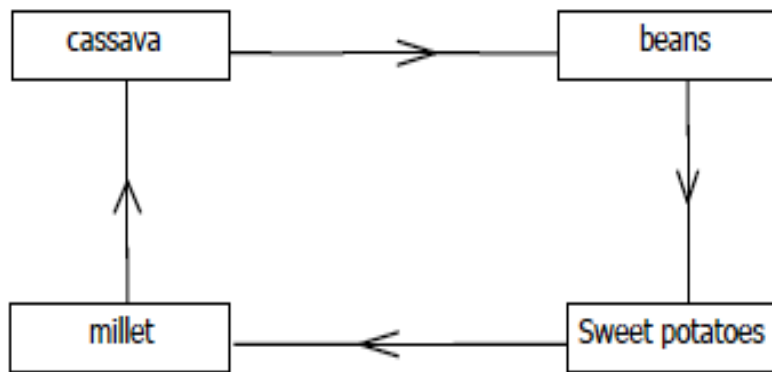
-Uses it to clean wounds

-Uses it to sterilize medical instruments

-Uses it to clean area on the skin where an injection is going to be taken.

- 51.**
- (a) Give any one example of an alloy.**  
 -Brass //bronze //dentist amalgam//solder /steel //alnicol //cast iron // cupro-nickel//stainless steel //manganese steel //tungsten //sterling silver
- (b) How does painting metals prevent them from rusting?**  
 -Paint blocks water (moisture) and oxygen from reaching the metal /  
 -Paint prevents direct contact of moisture and oxygen with a metal  
*(Reject: Painting / it blocks water and oxygen from reaching the metal)*
- (c) A part from alloying metals, state any two ways of conserving non-renewable resources.**  
 -Using renewable resources                      -Harvesting and using them sparingly  
 -Recycling and reusing domestic wastes                      -Controlled mining
- 52.**
- (a) Apart from moving animals, mention any two other agents of soil erosion.**  
 -Flowing water                                      -Wind
- (b) State any two ways of controlling soil erosion in hilly areas.**  
 -Terracing                                      -Contour ploughing  
 -Strip cropping                                      -Bunding
- 53.**
- (a) Mention any two examples of water cleaned diseases.**  
 -Trachoma.                      -Ringworm.                      -Scabies.  
 -Conjunctivitis.                      -Impetigo.                      -Dhobi itch.
- (b) Give any two ways of preventing water cleaned diseases.**  
 -Use enough water to observe personal hygiene  
 -Avoid shaking hands with an infected person  
 -Keep the eyes and skin clean  
 -Do not share basins, towels and clothes.
- 54.**
- (a) How are the following materials useful in the promotion of persona hygiene?**
- (i) Nail cutter.** -Used for grooming / cutting toe and finger nails.  
**(ii) Sponge.** -Used for scrubbing dirt on the body.
- (b) Give any one disease that can spread due to poor personal hygiene.**  
 -Scabies.                      -Ringworm.                      -Candidiasis  
 -Tooth decay                      -Dental plaque etc.
- (c) How does regular bathing help to promote personal hygiene?**  
 -Helps to remove dirt from the body.  
 -Helps to remove bad body smell.  
 -Helps to remove germs from the body.  
 -Helps to prevent skin diseases.

The diagram below shows a farming practice. Use it to answer the questions that follow.



- (a) **Name the farming practice shown above**  
-Crop rotation
- (b) **How does the above farming practice help to control pests?**  
-Starves crop pests to death.  
-Breaks down the life cycle of crop pests.
- (c) **Apart from controlling crop pests, State any one other advantage of the above farming practice.**  
-Controls the growth of weeds  
-Improves soil fertility
- (d) **Why are beans included in the above farming practice?**  
-Beans help to fix nitrates into the soil.  
-Beans help to improve soil fertility.

**END**

***‘Don’t Speak for Quality. Let Quality Speak for itself’***