

KOLFRAM EDUCATIONAL SERVICES

KAMPALA



LET'S DISCOVER OUR POTENTIALS

PRIMARY LEAVING EXAMINATIONS

QUESTIONS AND ANSWERS 2000- 2015

INTEGRATED SCIENCE REVISION BOOK

NAME:

SCHOOL:

CLASS:

This book is designed for both the learners and the teachers in accordance to the bridged curriculum. Each particular child in a class at a specific school deserves a copy of this book.

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TABLES OF CONTENT

EXAMS	PAGE
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2015	2
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2014	11
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2013	18
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2012	19
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2011	25
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2010	31
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2009	37
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2008	44
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2007	51
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2006	58
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2005	65
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2004	73
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2003	79
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2002	87
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2001	94
PLE INTEGRATED SCIENCE QUESTIONS AND ANSWERS 2000	100

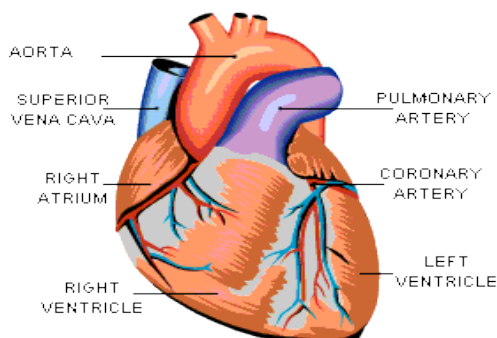
PLE INTEGRATED SCIENCE 2015

1. Which type of immunity do babies get from the mother

Natural immunity

Other types of immunity is called Acquired or artificial immunity through vaccination.

2. Name the blood vessel which takes blood from the heart to the lung



Pulmonary artery carries blood from the heart to the lungs.

3. Name the energy resource obtained from animal dung and urine

Biogas: the main component of biogas is methane; thus the answer may be methane.

4. Mention any one factor that affects the rate of evaporation.

Humidity: the higher the humidity the lower the rate of evaporation because the air saturates faster.

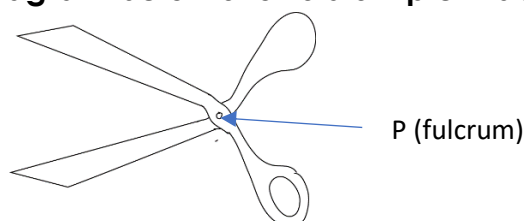
Other factors include

- ✓ Surface area; the bigger the surface area, the higher the rate of evaporation due to increased exposure of liquid molecules
- ✓ Temperature: the higher the temperature, the higher that rate of evaporation because, it provides heat of vaporization.
- ✓ Wind increases the rate of evaporation by removing saturated air
- ✓ Pressure reduction in pressure increases the rate of evaporation

5. State the difference in units to measure weight and mass.

Mass is measured in kilogram(kg) while weight is measured in newtons (N)

The diagram below shows a simple machine. Use it to answer questions 6 and 7.



6. To which classes of levers does the machine above belong?

First class lever

- ✓ In first class lever, the fulcrum is between the load and effort:
- ✓ In second class lever the load is between the fulcrum and the efforts
- ✓ In third class lever, the load and the fulcrum

7. Use an arrow with letter P to show the fulcrum on the diagram.

8. Give any one way in which litter is important in a poultry house.

- ✓ Absorbs moisture and keeps the house dry

- ✓ Insulates the house and keep it warm
- ✓ Cushions the floor and reduce egg breakage

9. Apart from the brightly colored petals, state one other thing that attracts insects to the flowers.

- Strong scent, Presence of nectar

10. State any one way in which drought affects food production in a community.

Dries crop, Retards crop yield

11. State the difference between the feeding of tape worm and a Hook worm.

Tape worm absorb digested food in the intestines whereas hook worm feed on blood

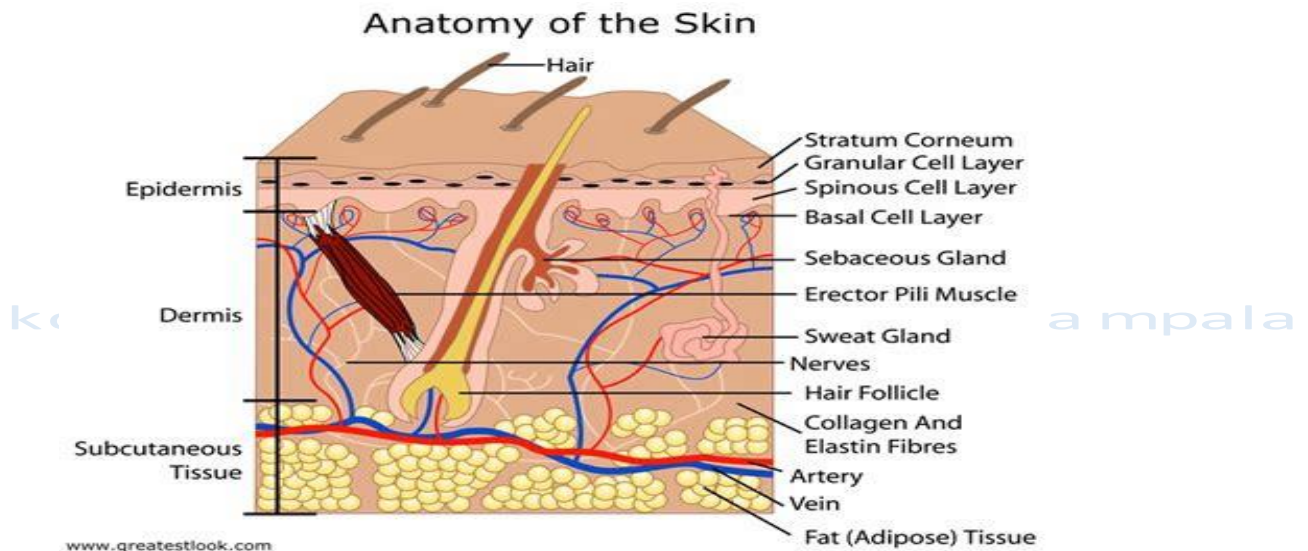
12. Why is water obtained by distillation method not good for drinking?

Lacks useful ions such as calcium for strengthening bones.

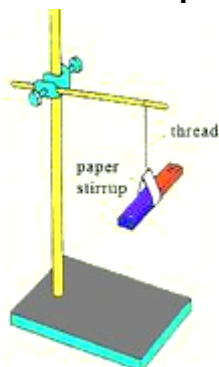
13. State the sense organ for feeling in the human body.

Skin

The skin is also used for regulating body temperature.



14. Which property of a magnet enables a magnet compass to work.



A freely suspended magnet rests in north-south direction

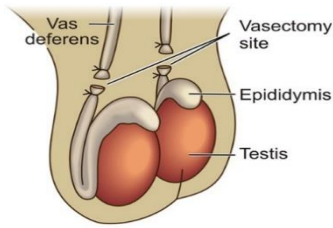
15. State any one way in which the spread of scabies can be prevented.

- ✓ Avoid body contact with infected person
- ✓ Avoid sharing clothes and comb
- ✓ Early treatment with calamine or benzyl benzoate

16. Why do some plants shed their leaves during dry season?

Plants shed off their leaves to reduce water loss

17. Mention one permanent method of birth control in males.



Vasectomy: in vasectomy sperm ducts are cut and tied

18. Why does a fish dies soon after it has been removed from water?

Due to lack of oxygen

Note that a fish derived oxygen from water through the gill.

19. Give the use of a drenching gun to cattle farmer.

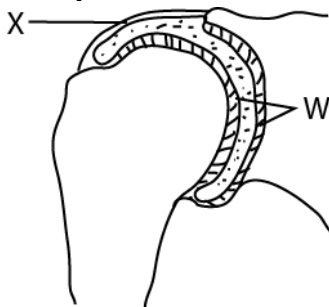
A drenching gun is used to administer drugs to animals

20. Give one reason why pregnant mothers are advised to feed on food rich in proteins.

To enable the fetus grow well.

The diagram below shows part of a joint.

Study and use it to answer questions 21 and 22.



21. Name the part marked X

Ligament (joins a bone to a bone)

22. Using letter W, label the part that reduces friction in the joints, apart from the synovial fluid.

23.State the method of controlling soil erosion where a farmer plough land across a slope

Contour ploughing

24. Which element of primary Health care helps to prevent tooth decay?

Personal hygiene or dental care

25. State the role of enzymes during food digestion.

Breakdown food into absorbable form

26.Apart from camera and microscope, name any one other optical instrument that uses a lens.

Telescope or binoculars

27.Give one way in which mosses are similar to mushrooms in the way they reproduce.

Both reproduce by means of spores

28. Why is tepid sponging is an important First Aid to a person with high fever?

A tepid sponge reduces body temperature. It is a cloth with lukewarm water.

29.Why are sun bird able to suck nectar from the bottom of the flowers?

Sun bird has a long beak to reach nectar

30. Give an example of mollusc which is a vector to human.

Water Snail

31. Name the human body system which eliminated wastes.

Excretory system

32. Give any one way in which a VIP latrine is different from an ordinary pit latrine.

A VIP latrine has

- a screen which traps flies
- vent pipe
- no lid

33. Name the root crop which is attacked by the mosaic disease.

Cassava

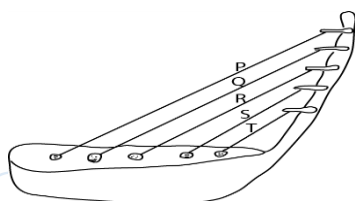
34. Give any one reason why sheep farmers carry out docking.

To make mating easy i.e. docking cutting off sheep's tail

35. Apart from a flat iron, give any other one appliance used at home that changes electric energy to heat energy.

Bulb, electric kettle and hot plate

36. The diagram below shows a well-tuned musical instrument. The string P, Q, R, S and T are of uniform thickness. Use it to answer the question that follows



Why does string T produce sound of the highest pitch?

Because it is the shortest, the shorter the string and the tighter the string the higher the pitch.

37. State any one way in which smoking affects the human respiratory system.

Causes lung cancer, Damages the lungs

38. Give the importance of plants in a food chain.

Produce food by the process of photosynthesis.

39. Name the fungal-caused sexually transmitted disease, which is spread through poor hygiene.

Candidiasis/ thrust

40. State one reason why farmer stake tomato plants.

- To prevent tomatoes from rotting, To make weeding easy

SECTION B: 60 MARKS

Questions 41 to 55 carry four marks each.

41. (a) Give two examples of natural fertilizers

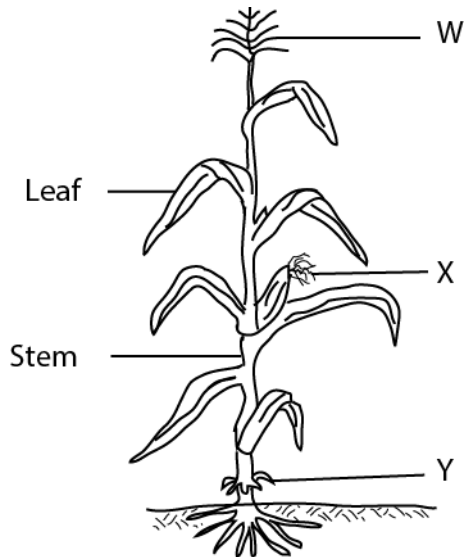
- (i) Green fertilizer
- (ii) Composite fertilizers

(b) state any two ways in which natural fertilizers are better than artificial fertilizers.

- ✓ They stay longer in the soil
- ✓ they are cheap

- ✓ Do not require skill to apply
- ✓ Improve soil texture
- ✓ Provide a variety of nutrients

42. The diagram below shows a flowering plant. Study and use it to answer the questions that follow.



(a) To which group of flowering plants does the above plant belong?

Monocotyledonous plant

(b) What type of root system does the plant have?

Fibrous roots

(c) State the importance of root marked Y to the plant.

Provide extra support

(d) In which one way is part W different from X in their reproductive function?

W produces pollen grains whereas X receive pollen grains

43. (a) Give any two conditions in which women are vulnerable

- (i) When sick
- (ii) When pregnant

(b) State any two ways in which family members can care for vulnerable women.

- ✓ provide balance diet
- ✓ help with domestic work
- ✓ Counsel and guidance

44. (a) Name the respiratory organ which are protected by the rib cage.

Lungs

(b) What happens to the rib cage during the following process:

- (i) breathing in? : **move up and outwards**
- (ii) breathing out? **Move down and inwards**

(c) Give the use of oxygen we breathe in

For respiration or burning food to obtain energy

45. The table below shows diseases, the vectors that spread them and disease-causing germs. Study and complete it correctly.

Disease	Vector	Germ
---------	--------	------

Cholera	housefly	Bacteria
Yellow fever	Aedes/ tiger mosquito	Virus
Rabies	Infected cats	virus
River blindness	Blackflies	Worm/filarial worm

46. (a) Give the functions of each of the following part of a modern bee hive.

- (i) **The brood chambers:** for queen to lay eggs
- (ii) **The honey chambers:** it is where younger one grow and food for grubs is stored.

(b) Apart from being used as food, give two other ways in which honey is useful to people.

- (i) it is a medicine
- (ii) For making alcohol
- (iii) Sweetening food
- (iv) Making preservatives

47. (a) What kind of food is made by green plants during photosynthesis?

Starch, glucose or sugar

(b) State any one raw material used by green plants for photosynthesis.

Carbon dioxide and water

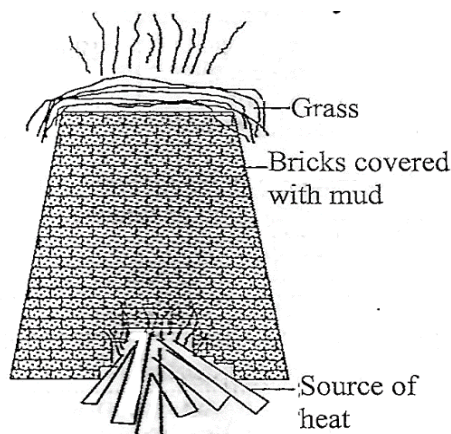
(c) How is chlorophyll important during the process of photosynthesis?

Traps light for photosynthesis

(d) Give one reason why photosynthesis does not take place at night.

There is no light energy

48. The diagram below shows firing bricks in a kiln. Study and use it to answer the questions that follows.



(a) Name the source of heat energy used in the firing the bricks.

Fire wood

(b) Give any one reason why the bricks are covered with mud before firing starts.

To prevent heat loss

(c) What is the importance of the grass put on top of the kiln during firing?

To show that all bricks are burnt.

(d) State any one disadvantage of using the above method of firing bricks to the environment.

Lead to deforestation and air pollution

49. The table below shows part of human eye in A and that of a lens camera in B.

A	B
Iris	Shutter
Pupil	Film
Eye lid	Diaphragm
Retina	Aperture

For each of the parts of the human eye, write the part of the lens camera from B which performs a similar function.

- (i) Iris diaphragm
- (ii) Pupil aperture
- (iii) Eye lid shutter
- (iv) Retina film

50. (a) Which communicable disease shows sign and symptoms similar to that of tuberculosis?

- (i) AIDS

(b) Name one cattle product through which tuberculosis can be spread to human beings.

- (ii) Milk

(c) When is the vaccine against tuberculosis administered to babies?

- (iii) At birth

(d) Apart from immunization, give one other way in which the spread of tuberculosis can be controlled in human.

- ✓ Isolating infected persons
- ✓ covering the mouth while coughing

51. (a) Give any two ways in which alcohol is used in hospitals.

- ✓ sterilizing medical equipment
- ✓ solvent for drugs
- ✓ disinfects wound

(b) State any two effects of alcoholism to an individual.

- ✓ Damage liver and brain
- ✓ Neglect of responsibilities
- ✓ Poverty
- ✓ Accident and death

52. (a) Apart from the respiratory gases and body wastes, name any other two materials carried in blood.

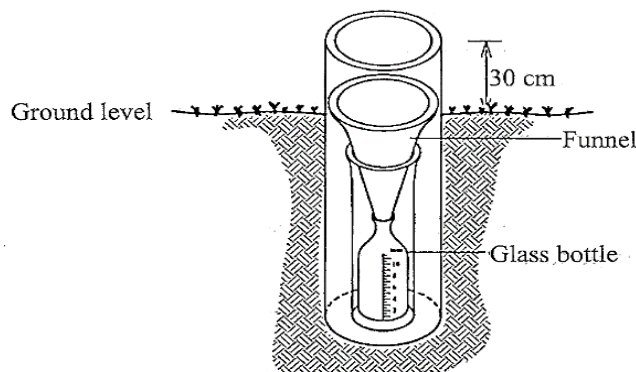
digested food, hormones, drugs, antibodies, blood cell

(b) Name the component of blood which transport oxygen in the human body.

Red blood cells

(c) Which disease-causing germ attacks the white blood cells in humans?

53. The diagram below shows a weather instrument. Study and use it to answer the questions that follow



(a) Name the weather instrument shown in the diagram above

Rain gauge

(b) What is the use of the instrument above at a weather station?

To measure the amount of rainfall received in an area

(c) Give a reason why people are advised to:

- ✓ Put the instrument in an open ground when using it
 - To get accurate results
- ✓ Raise the instrument 30cm above the ground when using it.
 - To prevent running or splashing water from entering

54. (a) To Which class of vertebrates does a toad belong?

Amphibians

(b) Give one way in which the breathing of a toad is different from that of a tadpole

Toad use lungs whereas tadpole use gills for gaseous exchange

(c) State any two ways in which the jelly round the eggs of a toad is important.

- (i) protect the eggs from predators
- (ii) keep the eggs floating

55. (a) Apart from ticks, name any one other cattle pest

Mite, flies.

(b) state any two diseases spread by ticks to cattle.

- (i) East coast fever
- (ii) red water

(c) Give any way in which the tick borne diseases can be controlled.

- spraying/ dipping
- Rotational grazing

PLE INTEGRATED SCIENCE 2014

1. Which type of soil has rough and large particle?

Sandy soil

2. In which state of matter does heat travel slowest

Solid state

3. To which class of levers does a wheel barrow belong?

Second class lever.

4. Apart from labour, give one other requirement for starting a livestock farm.

- Capital, Market for the product, Land. Water source, management

5. What kind of accident requires the use of splints in giving First Aid?

Fracture

6. Give any one exotic breed of sheep kept for wool production.

Merino, Romney marsh, Corriedale

7. Which sexually transmitted disease can cause blindness in babies?

Gonorrhea

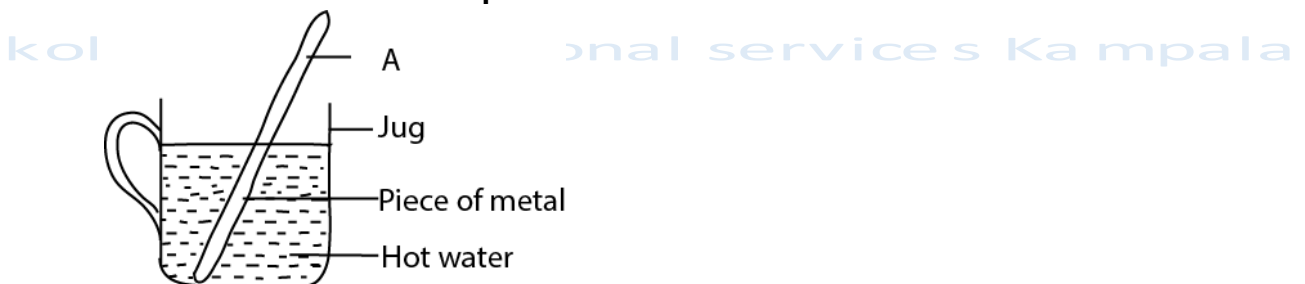
8. Name the human body organ that uses light for it to function.

The eye

9. State one way in which echo can be reduced in a hall.

- Use of blanket, Putting ceiling boards, Thick carpet, curtains

10. The diagram below shows a piece of metal dipped in a jug containing hot water. Use it to answer the questions that follow.



How does part A become hot yet it is not in hot water?

By conduction

11. Give any one disadvantage of harvesting honey using fire

- Kills bees, Burns the hive, Make honey dirty, Melt honey comb

12. How is BCG vaccine different from the polio vaccine in the way they are given to children.

BCG vaccine is administered through injection while polio vaccine is administered orally.

13. Give one reason why washing of hands after visiting a latrine is a good practice.

Removes germs from the hands

14. Which process in plants has a similar function as sweating in humans?

Transpiration

15. Apart from taking wrong dose, give one other way in which drugs are misused.

- Taking drugs when not sick

- Taking drugs for wrong disease, Taking drug at wrong time, Sharing drug with another person

16. Which condition in babies is shown by sunken spot on the head?

Dehydration

17. Give one way in which plants benefit from animals for photosynthesis.

Get carbon dioxide

18. How is sun-drying helpful in the preservation of food crops?

Reduce water content and dry them

19. Why is water grouped under renewable resource?

- It cannot be exhausted, Can be replaced when used

20. Which mineral helps in formation of red blood cells in the human body?

Iron

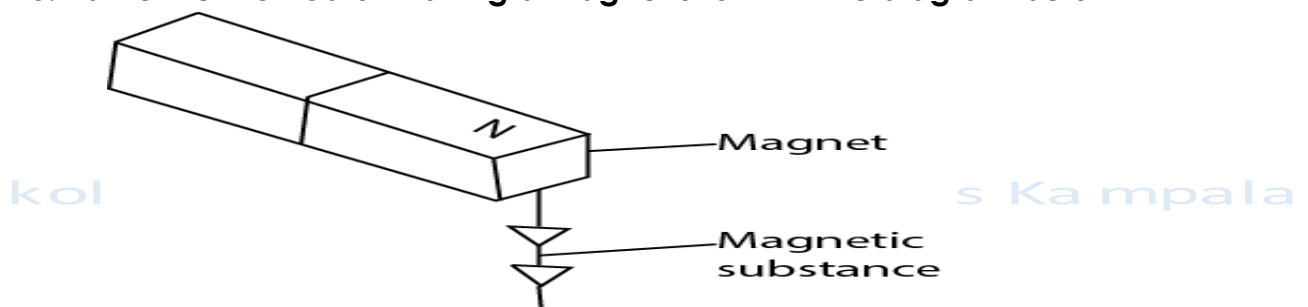
21. Apart from melting, state any one other physical change that takes place in the presence of heat.

-evaporation or sublimation

22. Name any one disease of rabbits that affects poultry birds.

Coccidiosis, Pneumonia

23. Name the method of making a magnet shown in the diagram below



24. In which method of making water clean, do you first allow the impurities to settle at the bottom of the container?

Decanting

25. Why does a coin thrown in a basin full of water appear to be nearer to the surface?

Due to refraction

26. How is reproduction in whale different from that of fish.

- Whales produce younger one alive while fish lay eggs.
- Whale undergo internal fertilization while fish undergo external fertilization.

27. Why is it important for government to collect information on human health?

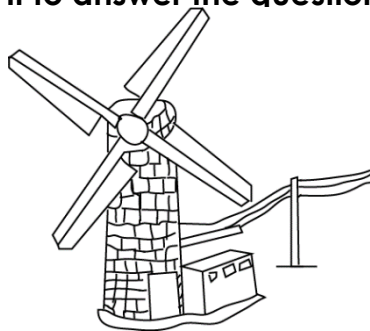
- To plan health units, To budget for medicine

28. State any one piece of advice you would give to a person who suffers from indigestion.

- To chew food properly, Eat food rich in roughages ,Eat a lot of fruits and vegetables

29. The diagram below show how electricity is produced

Use it to answer the question that follows:



What source of energy is used to produce the electricity?

Wind energy

30. Why does paraffin settle on top when mixed with water?

Paraffin is less dense than water or water is denser than paraffin

31. Give any way in which bacteria are useful to crop farmers>

- ✓ They fix nitrogen
- ✓ Convert plant remains to human
- ✓ Decompose organic matter to form manure

32. Mention the group of birds to which a crested crane belongs

Wading birds

33. Which disease is spread to human by rats?

Plaque

34. How is the function of the pulmonary vein different from that of other veins?

Pulmonary vein carries oxygenated blood whereas other carry deoxygenated blood.

35. Which property of air enables you to drink soda using a straw

Air exerts pressure

36. Why do plane mirrors produce regular reflection of light?

Has a smooth polished surface

37. What name is given to a meal containing all food values in their right amount?

Balanced diet

38. State one way in which married couple can avoid HIV/AIDS among themselves.

Being faithful to each other

39. Give one way in which the use of solar energy is good for environment.

Does not pollute environment

40. Apart from the number of body parts, state one other difference between Arachnids and insects.

- Arachnids have four pairs of legs while insects have three pairs of legs
- Arachnids have no antennae/feelers whereas insects have
- Arachnids use lung-book for breathing while insects use trachea system

SECTION B

Questions 41 to 55 carry four marks each

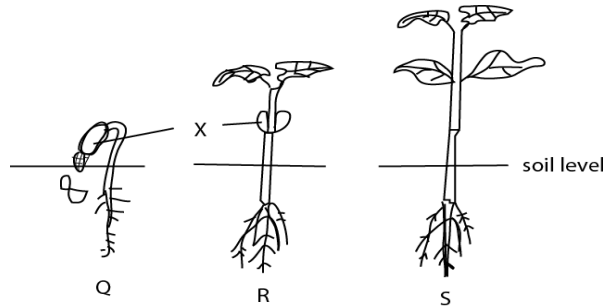
41. (a) name two poisonous substances found in tobacco

- (i) Tar. ii) Nicotine

(b) State any two effects of cigarette smoking by pregnant women to their unborn babies.

- (i) leads to underweight
- (ii) leads to still birth

42. The diagram below Q, R and S show the stages of germination of a seed. Study and use it to answer the questions that follow.



(a) Name the part marked X:

Cotyledon

(b) How is the part marked X useful to the seedling at stage R.

Provides food to the plant

(c) Why is the part marked X useless at stage S?

The food in the cotyledon is used up

(d) What type of germination is shown by the seed.

Epigeal germination

43. The table below shows joints and their position in the human body.

Study and complete it correctly

Joints	Position in the body
Pivot joint	Neck
Ball and socket joint	shoulder
Hinge joint	Knee
Suture joint	Skull

44. (a) state any two agents of soil erosion

Wind, Running water, Animals

(b) Give two ways in which soil erosion can be controlled in hilly areas.

- (i) by terracing (ii) by contour ploughing (iii) by strip cropping
- (iv) By agroforestry
- (v) By planting trees

45. (a) what type of change takes place when an iron tool rusts?

Chemical change

(b) Give two conditions necessary for rusting to take place on an iron tool

- (i) oxygen (not air). (ii) water

(c) state any one effect of rusting on iron tools.

- weakens tools, make tools dull/ugly- make tool blunt

46. (a) Apart from egg eating, name any one other vice of poultry.

- Feather pecking, Cannibalism, Toe pecking

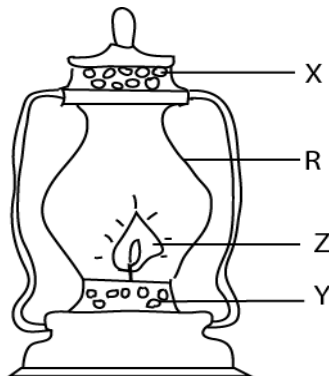
(b) Give any one cause of egg eating in poultry

- boredom, lack of enough calcium in the diet,
- Delay to pick eggs , - lack of food

(c) State any two ways of preventing the egg eating vice in poultry.

- make laying boxes dark, give enough food with calcium, timely picking of eggs, provide enough space, provide vegetables

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



a) Name the part marked with letter Z.

Flame or fire

b) Why is the part marked R made of glass?

To allow light to pass through

c) Give the importance of the parts marked X and Y when the lamp is in use.

- ✓ To let out carbon dioxide, heat and smoke
- ✓ To let in fresh air

48. (a) Name the group of crops that are harvested year after.

Perennial crops

(b) Give any two examples of crops that belong to the group you have named in (a) above

- (i) coffee, tea, mangoes, orange, Banana, sisal,
- (ii) coconut, pyrethrum, oil nut, pawpaw

(c) State one way in which the above crops are harvested.

By hand picking, plucking, Uprooting, Cutting, digging

49. The table below shows a group of animals in A with their respiratory organ in B.

A	B
Tilapia	Moist skin
Mosquito	Lungs
Frog	Gills
Dog	spiracles

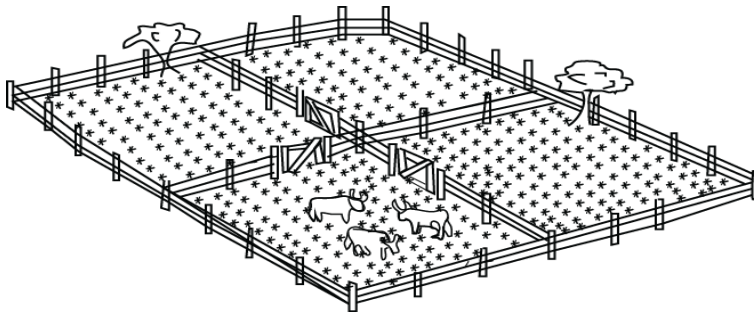
Write against each animal below, its respiratory organ from B.

- (i) **Tilapia:** Gills
- (ii) **Mosquito:** spiracle
- (iii) **Frog:** moist skin
- (iv) **Dog:** lungs

50.(a) In the human reproductive system, state where each of the following processes take place:

- (i) **Implantation:** : uterus
- (ii) **Production of sperms:** testis
- (iii) **Production of female hormones:** ovaries
- (b) **Give any one use of the placenta to the foetus during pregnancy**
 - ✓ supplies food, supplies oxygen, supplies hormones
 - ✓ prevent disease germs from reaching the foetus
 - ✓ attachment of the foetus to the mother,
 - ✓ to deliver carbon dioxide and wastes from the foetus

51.The diagram below shows a system of grazing cattle. Study and use it to answer the questions that follow.



(a)Name the system of grazing cattle shown in the diagram above.

Paddock system

(b)Besides restricting the animals, give two other advantages of this system of grazing cattle.

- ✓ Gives pasture time to grow
- ✓ Control breeding of pest
- ✓ Control soil erosion
- ✓ Give animal enough exercise
- ✓ Prevent overgrazing
- ✓ Isolate sick animals

(c)State any one disadvantage of the system of grazing cattle shown in the diagram

- It is expensive, it requires a big piece of land

52.(a) Give two ways in which Primary Health care (PHC) is an important program in the community

- ✓ Controls population growth, Helps prevent malnutrition in babies
- ✓ Promotes safe water and sanitation,
- ✓ Ensure care for the disadvantaged

(b) state any two roles of school healthy committee.

- ✓ Organizes pupils to clean the environment
- ✓ Conducts health parades
- ✓ Identify and finds a solution to healthy problem

53.(a) What name is given to a practice of growing crops and trees together on the same piece of land?

Agroforestry

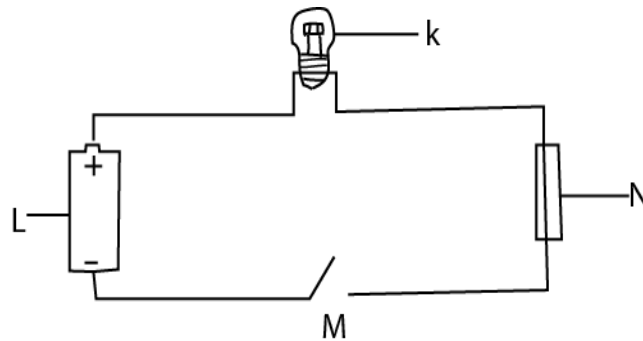
(b) State any two ways in which crops benefit from trees when they grow together.

- (i) Trees provide shades
- (ii) trees act as weed breaker
- (iii) leaves from trees form manure
- (iv) Trees provide support to climbing crops

(c) Give any one proper method of harvesting trees in the practice named in (a) above

- Pollarding/ cropping/selective felling

54. Study the diagram of an electric circuit below and use it to answer the questions that follow



(a) Name the parts marked K and N

- (i) **K:** bulb.
- (ii) **N:** Fuse

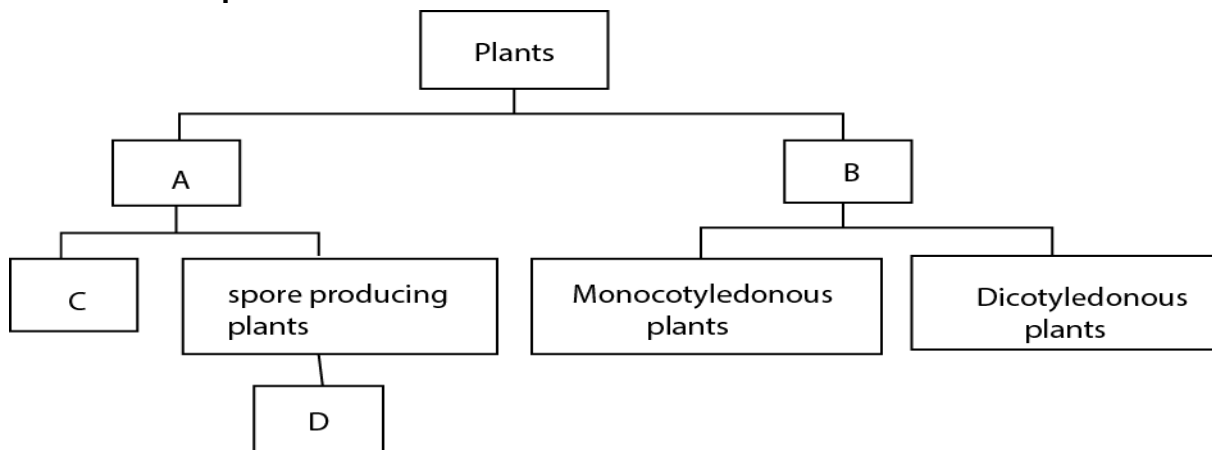
(b) State the energy change that takes place at L when M is closed

Chemical energy is converted to electric energy.

(c) Give any one form of energy produces at K when M is closed

Light and heat

55. The table below shows classification of plants. Study it carefully and use it to answer the questions that follow.



a) Name the group of plants shown by the following letters:

- A:** nonflowering plants.
- B:** flowering plants
- C:** conifer, seed producing plants

b) Give any one plant that belongs to the box labelled D

- c) Fern, mosses, liverworts

2013 missing

kolfram educational services Kampala

PLE INTEGRATED SCIENCE 2012

1. Give any one example of a root tuber

Cassava, Sweet potato, carrot

2. State one disadvantage of keeping finger nails long.

They keep germs

3. What is the importance of including calcium in chicken feed?

- ✓ to lay eggs with hard shells
- ✓ to strengthen bones

4. What is the use of a wedge as a simple machine?

For cutting e.g. axe; For digging e.g. hoe

5. Name the type of lens used to correct long sightedness

Convex lens or converging lens

The diagram below shows a person with an injury .Use it to answer question 6



6. How useful is the structure marked M to the injured person?

Keep the injured arm in one position

7. Apart from mosses, give one other example of a spore bearing non-flowering plant

Fern, liverwort ,moss

8. Name any one mammal that lives in water.

Whale, dolphin, hippopotamus, seal

9. Give a reason why people keep cats in their homes.

To kill snakes, rats and lizard:

10. Why does a farmer cut off leaves of a banana sucker before planting it?

To reduce the rate of transpiration

11. Apart from pasteurizing, give any one way milk can be prevented from going bad.

Boiling, Refrigeration, tinning

12. Why is it important for a husband and his wife to be treated together if they have got gonorrhea?

To prevent reinfection

13. Why do farmers carry out de –beaking in poultry farms?

Debeaking is cutting of poultry to prevent cannibalism and egg eating

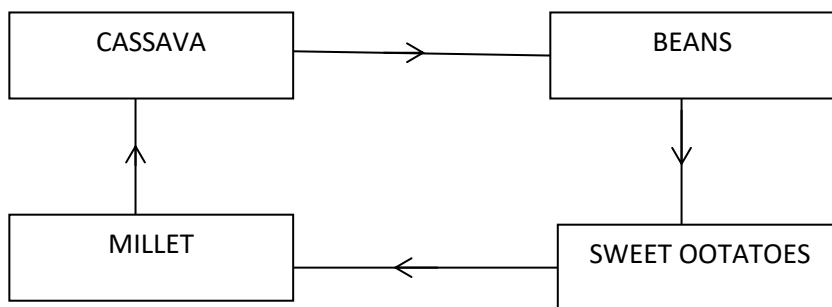
14. State any one habit which helps to promote oral health.

Brushing teeth; cleaning the tongue

15. State one use of soil to earthworms.

Soil is a home for earthworm

The diagram below shows a crop rotation cycle



16. What is the importance of beans in this cycle to the rest of the crops?

Beans contain bacteria in root nodules that fix nitrogen to the soil

17. Which communicable disease in human affects both the skins and the skeletal system?

Leprosy

18. Apart from carbohydrates, name one other class of food that gives the body energy.

Fats, oil, lipids

19. In which way is the sun important in the formation of rain?

Causes evaporation of water bodies

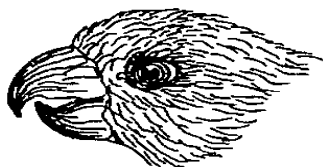
20. State any one method used to make dirty water clean.

Filtration, Distillation, Decanting

21. How does a sweater help to keep a person warm during cold days?

A sweater prevents heat loss

The diagram is a head of a bird .use it to answer question 22



22. What does a bird with this type of beak eat?

Hard seeds

23. Give any one effect of poor disposal of human wastes in the environment.

Spreads diseases like cholera

24. Apart from the egg stage, at what other stage of development is a housefly not active?

Pupae

25. Why does a clay-made charcoal stove use less charcoal than a metallic one?

- ✓ Clay stove retain more heat than metallic ones
- ✓ Clay stove conserve heat for a long time

26. Apart from production of eggs (ova), mention one other use of the ovaries in the human body.

Ovary produce hormones such as estrogen and progesterone

27. State one way in which a child gets natural immunity

- ✓ By suffering from disease and recovering from it
- ✓ From breast milk

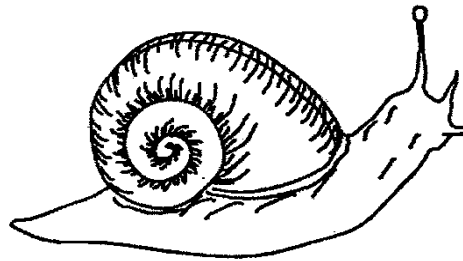
28. State the injury that results from tearing of muscles.

strain

29. Which gas is used by food manufacturers for preserving drinks like sodas?

Carbon dioxide

The diagram below is of a common animal. Use it to answer question 30



30. Which disease does the above animal spread humans?

Bilharzia or schistosomiasis

Symptoms of bilharzia

Fever, Abdominal pain (liver/spleen area), Bloody diarrhea or blood in the stools, Cough, Malaise; Headache, Rash, Body aches

31. Why are the legs of a person who has fainted raised higher than the head as a way of giving first aid?

Raising legs allows more blood supply to the brain

32. What name is given to a place where seedlings are grown before transplanting?

Nursery bed

33. Which part of the human ear equalizes pressure in and outside the ear?

Eustachian tube

34. Name one other disease caused by fungi in human s apart from ring worm.

Candida

oral thrush

Dhobis itch

35. What class of food is digested in the stomach?

Proteins

36. Give any one advantage of castrating farm animals.

- ✓ prevent poor bread
- ✓ prevent venereal disea:
- ✓ make male easy to handle

37. In the space below draw a simple diagram of a fibrous root system.

NB: In fibrous root system has small sized of the same size.

38. How are plastics and glass materials dangerous to soil?

- prevent water from entering the soil and can cause water logging

39. Apart from liquids, name one other state of mater through which heat is transferred by convection.

Gas

40. In which human body organ does gases exchange take place?

In the lungs

SECTION B: MARKS 60 MARKS

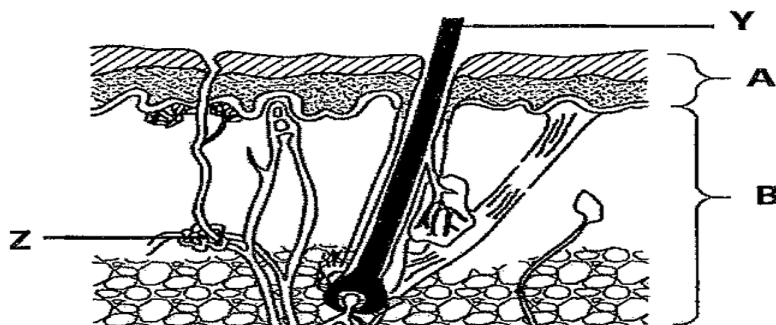
41(a) Gives any two example of a physical change

- ✓ melting of ice
- ✓ Evaporation
- ✓ Gas to solid
- ✓ Melting candle wax

(b) State two characteristics of a chemical change

- ✓ Heat is given out
- ✓ Form new substance
- ✓ Are irreversible
- ✓ Permanent change

The diagram below of a human skin. Use it to answer questions 42



42.(a) Name the layers A and B

- (i) A- Epidermis (ii)B- Dermis

(b) Give the function of the part labeled Y and Z

- (i) Y- insulate the body. (ii) Z – secrete sweat

43. (a) Name the two types of pollination in flowering plants

- (i) self-pollination (ii) cross pollination

(b) Write any two agents of pollination

Insects, Wind, Animals, Running water

44. (a) Give any two disadvantages of keeping local breeds of poultry

- (i) Take long to mature
(ii) Produce a few eggs.

(b) Apart from getting money, give any two ways a farmer benefits from keeping poultry.

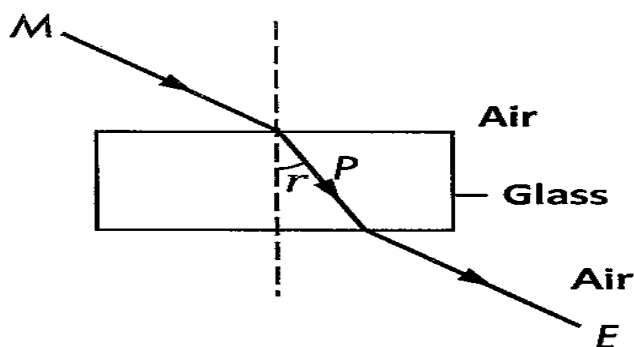
- (i) Get meat (ii) Get eggs (iii) get manure

45. Match each animal in A with the correct group to which it belong in B

A	B
Chameleon	Mammals
Toad	Birds
Bat	Reptiles
Ostrich	Amphibians

- (a) Chameleon - reptile
(b) Toad - amphibian
(c) Bat - mammal.
(d) Ostrich - bird

The diagram below shows how light passes through a glass block. Study and use it to answer question 46.



46. (a) Name the rays M and P

(i) **M** – incident ray (ii) **P** – Refracted ray

(b) Name the angle marked P

Angle of refraction

(c) Give a reason why ray P bend as shown in the diagram

Light is moving from less dense medium to a denser medium

47(a) Give one reason why dehydration is dangerous to humans

- ✓ It can lead to death
- ✓ It weakens the body

(b) In which way is oral re hydration solution (ORS) a good treatment for diarrhea?

Replaces lost water, and mineral

(c) Apart from taking ORS, how else can one prevent dehydration?

(vi) Take a plenty of water, Eating juicy fruits like paw paws

(d) How can a person preparing ORS prevent it from contamination?

(ii) By using boiled water, By using clean containers

48. The table below, shows source of food, the food nutrients in it and the related deficiency disease. Complete it correctly.

Source of food	Food nutrient	Deficiency disease
Fruit	Vitamin C	Scurvy
Beans	proteins	Kwashiorkor
Fish liver, Eggs, carrots	vitamin	Night blindness
Iodized salt	Iodine	Goiter

49. (a) Which type of blood vessels return blood to the heart?

Veins

(b) What is the function of valves in the blood vessels during blood circulation?

Allow blood to flow in one direction

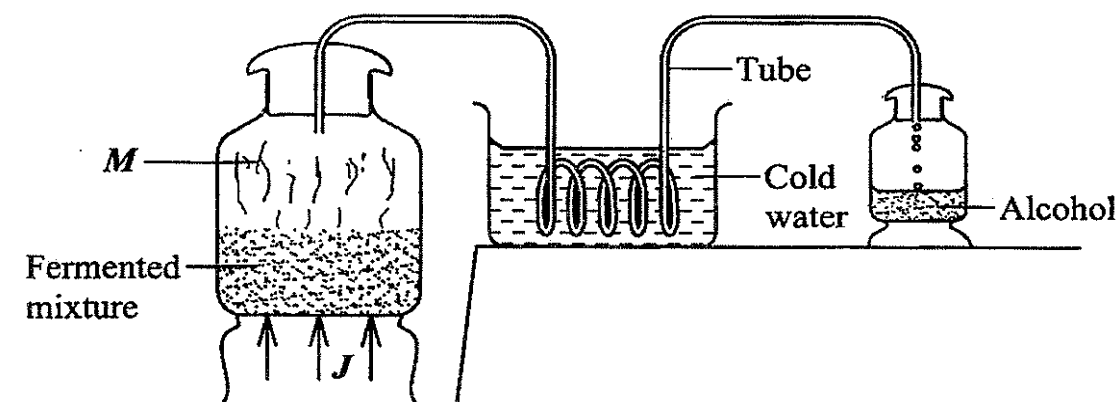
(c) What type of blood is carried by most blood vessels with valves?

Deoxygenated blood

(d) Give any one waste materials carried by blood.

Urea, Uric acid, Carbon dioxide

The diagram below shows one of the methods of preparing alcohol. Study and use it to answer questions 50.



50(a) Name the methods used in the diagram

Distillation

(b) What do the arrows labeled J represent?

Heat

(c) Why is the tube passes through cold water?

To condense the alcohol vapour

(d) What process forms M?

Evaporation

51(a) Apart from antenatal care, give two other ways of caring for pregnant women.

- ✓ Provide a balance diet
- ✓ Show them love
- ✓ Give them enough rest
- ✓ Give appropriate dressing

(b) In which one ways should pregnant women protect their unborn babies from malaria?

Take antimalarial like fansidar, Sleep in mosquito treated nets, Use mosquito repellent

(c) Why are pregnant women advised not to smoke?

To avoid premature death, Avoid lung cancer, Avoid still birth

52. (a) Name the force that brings down all objects thrown up.

Gravity

(b) (i) When a piece of paper and a rubber dard are dropped from the same height, which one reaches the ground first?

Rubber

(ii) Give a reason for your answer in (b) (i) above.

Rubber experiences less air resistance than paper

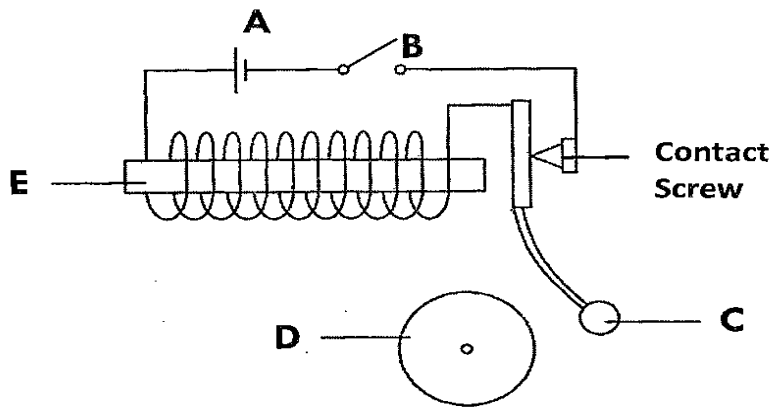
(c) Why do some objects float on water?

They are less dense than water

53. (a) State any two reasons why farmers thin their crops

(i) for proper spacing (ii) To ease weeding (iii) For easy harvesting

55. Study the diagram of an electric bell below and use it to answer question 55.



55 (a) Name the part marked A and C

- (i) **A**= Dry cell
- (ii) **C**= Hammer

(b) What will happen to E when B is closed

Become magnetized

(c) How useful is part D on the electric bell?

Produce sound

PLE INTEGRATED SCIENCE 2011

1. Name the disease which is spread by a female anopheles mosquito

Malaria

2. Which form of energy changes ice to water?

Heat energy

3. Give a reason why drugs should be kept away from children.

a. **To prevent poisoning**, To prevent misuse of drugs, To avoid drug abuse

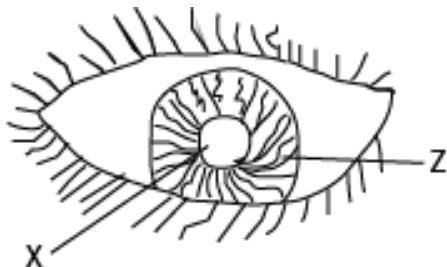
4. Name the class of simple machines to which an axe belongs.

Wedge

5. Write down any one example of a plant fibre.

Sisal, cotton wool, silk, banana fibre, jute, Hem, or raffia

The diagram below is of a human eye. Use it to answer question 6 and 7



6. Name the part marked with letter X

- Pupils

7. Give the use of the part marked with letter Z.

Controls the amount of light that enters the eye

8. State one types of accidents whose First Aid is to put the affected part of the body in cold water.

Burn, scalds, dislocation or strain

9. Why should children be given food which is rich in proteins?

To grow well or protect against kwashiorkor

10. Give one way in which plants depend on soil.

Soil holds the plants firmly, to obtain water, to obtain mineral salts

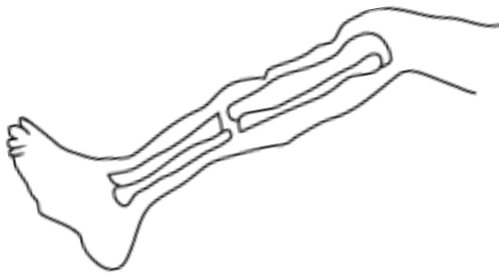
11. Give one way in which the umbilical cord is important to the developing fetus in the uterus.

- ✓ **Takes blood to the embryo**
- ✓ **Removes waste products from the embryo**
- ✓ **Connects the embryo to the mother**

12. Name any one characteristic of seeds which are dispersed by wind.

(i) seeds are light, seeds have wing extension, seeds are hairy

The diagram below shows a fracture. Use it to answer question 13.



13. What type of fracture is shown in the diagram above?

Simple fracture

14. State the compass direction in which a freely suspended magnet will rest.

North- South direction

15. What is the use of gills in a mushroom?

To produce spores

16. Give one way in which P7 pupils can promote immunization in their families

- ✓ **Taking their siblings for immunization**
- ✓ **Going for immunization**
- ✓ **Sensitizing the community on the importance of immunization**

17. Apart from pregnant mothers, young and disabled people, give any one other group of people who need special care in a family.

Elderly people or sick people

18. In which way is a fuse similar to a switch in a simple electric circuit?

Both break the circuit

19. Why should a nurse shake the clinical thermometer before it is used on another patient?

To settle down mercury or to enable accurate measurement

20. State one way in which a farmer can control crop disease without using chemicals.

- ✓ **Employing an enemy to the pest**
- ✓ **Crop rotation, Pruning, Regular weeding, early planting, Burning infected crops**

21. Name the turning point of a machine.

Fulcrum or pivot

22. Why are ventilators usually put on a higher level than doors and windows in a house?

To let out warm less dense air as fresh air enters through the window and the door.

23. How do conifers differ from other non- flowering plants?

Conifers reproduce by means of seed while nonflowering plants reproduce by means of spores.

24. What is the importance of a chimney in a kitchen?

To let out smoke

25. Apart from getting food, give any one other way in which birds benefits from plants.

Get shelter, habitat, nest materials, protection, recreation or get oxygen

26. What types of skeleton does a cockroach have?

Exo-skeleton

27. What is the importance of water during seed germination?

Soften the Testa, dissolves food in the cotyledon for the embryo

28. How does a human body cool itself on a hot day?

Through sweating

29. How is the fertilization of the eggs of amphibians different from those reptiles?

In amphibian fertilization is external whereas in reptile its internal

30. How can the pitch of a string of a musical instrument be changed?

By turning the pegs

31. Mary shouted in a big house and she heard the same sound repeated. Name the repeated sound she heard.

Echo

32. Give one disadvantage of using herbicides (chemicals) to kill weeds in crop gardens.

- **kill useful organisms in the soil**, may kill the crops as well

33. State an example of a crop which is a legume.

Bean, soya bean, ground nuts, peas

34. Give any one way in which the human liver can be kept in proper working condition.

- **Avoid alcohol, Drink a lot of boiled water**

- **Avoid smoking, Avoid taking unnecessary drugs**

35. State any one way in which termites depend on soil.

- **Shelter/habitat, for food, source of building material**

36. A man lives with, two sons and a nephew. what type of family is this?

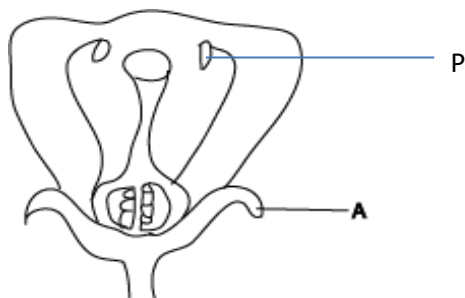
Extended family

37. Name any by –product of respiration.

Carbon dioxide, heat, water

38. State the type of change that takes place when a baby grows to an adult.

Biological change



The diagram below is a section of a flower. Use it to answer question 39 and 40.

39. Name the part marked A

Sepal

40. Use letter P to show the part that produces the male reproductive cells.

SECTION B: 40 MARKS

Question 41 to 55 carry four marks each.

41(a) Give one way in which primary health care (PHC) is important to a community.

- **Prevents diseases, Give first aid, Care for vulnerable people, Promote proper disposal of wastes**
- **Sensitize on the importance of balance diet, Promote personal hygiene, Protect water sources, Improve health**

(b) State the elements of primary Health Care which is promoted by each of the following activities:

(i) Sweeping the kitchen.

Water and sanitation

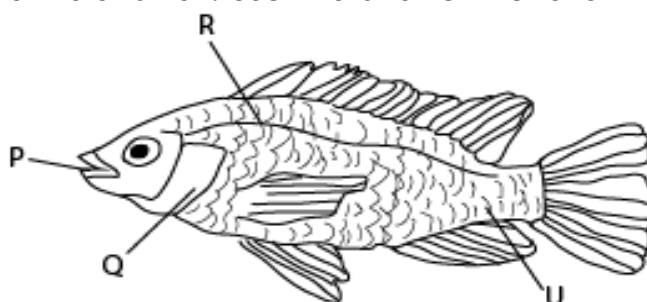
(ii) Putting drops of polio vaccine into the mouth of a child.

Immunization

(iii) Eating a balanced diet.

Food and nutrition

42. The diagram below is of a fish. Use it to answer the follow



(a) Name the part labeled R

Lateral line

(b) Give the function of the part labeled P and U

(i) P is **mouth for feeding, and taking in water**

(ii) U **-scales for protection of inner parts**

(c) What structure is covered by the part labeled Q?

Gills

43(a) states two differences between birds and mammals

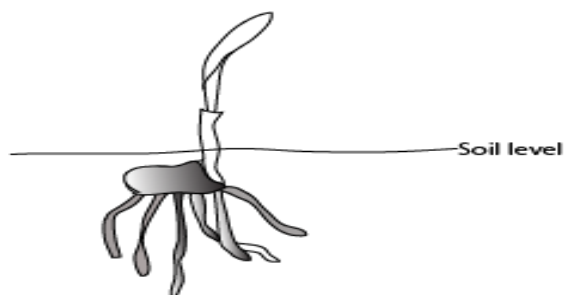
Birds	mammals
--------------	----------------

Covered with feather Have beaks Have no pinna Have no teeth Have no mammary gland	Covers with fur Have mouth Have pinnae Have teeth Have mammary glands
--	--

(b) Give two similarities between birds and mammals

Both are warm blooded, Both are vertebrate, Both carry out internal fertilization

44. The diagram below shows a germinating seed. Use it to answer the questions that follow



(a) State the type of germination shown above.

Hypogeal germination

(b) Where does the seed above store the food used during germination?

In the endosperm

(c) Give an example of a crop with the same types of germination.

Millet, sorghum, wheat, rice, barley

(d) Apart from moisture, state any one other condition necessary for seed germination.

Oxygen, warmth

45. (a) state any two natural causes of environmental degradation

Earthquake, flooding, volcanic eruption, drought, El Niño, Soil erosion, Lightning

(b) Give two human causes of environmental degradation

Bush burning, Poor farming methods, Deforestation, Over use of fertilizers, Brick making, Swamp drainage, Poor waste disposal, Overgrazing, Quarry, Mining, Poor disposal of industrial waste

46. (a) Which part of the body is affected by each of the following diseases

(i) Scabies: **Skin** (ii) Trachoma: **eye**

(b) State the vector which spreads each of the following disease

(i) Bilharzias: **snail**.

(ii) Rabies: **cats or dogs**

47. (a) Mention two primary sex changes that happen in boys

(i) enlargement of penis.

(ii) wet dreams

(iii) Production of sperms

(b) Give two secondary sex changes which happen in both boys and girls

(i) Growth of pubic hair

(ii) growth of hair in armpit

(iii) change in voice

48. (a) Apart from millets, wheat and sorghum, give any one other cereal food crop.

- rice, wheat, barley

(b) Mention any one common pest that destroys cereal crops

Birds, frog, ants

(c) Give any two reasons why cereal crops are dried before storing

d) to prevent rotting, to prevent germination, to reduce water content

49. (a) Apart from a worker bee, mention two other types of bees found in a bee hive.

(i) Drone. (ii) queen bee

(b) Write down two materials collected by a worker bee from the environment

(i) nectar (ii) pollen grain (iii) water

50. (a) What form of energy does a ball have before it is kicked?

Potential energy

(b) What energy change takes place immediately a ball is kicked?

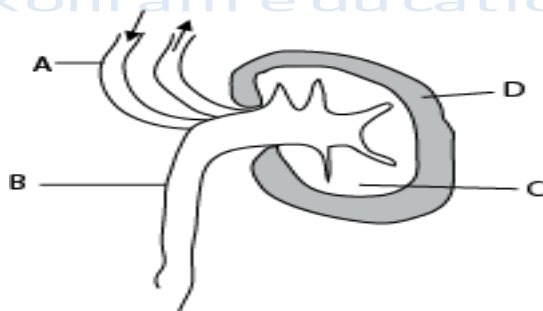
Potential energy changes to kinetic energy

(c) Give two forms of energy produced by the ball as the goal keeper catches it

✓ **sound energy**

✓ **heat energy**

51. The diagram below is a section of human kidney. Use it to answer the questions that follow.



(a) Name the part marked with letter B and C

(i) **B - ureter** (ii) **C – medulla**

(b) What happens to blood in the part marked with letter D

- Blood is filtered

- Nitrogenous wastes are removed from blood

(c) How is part A important to the kidney?

- brings oxygen to the kidney

- brings dissolved food to the kidney

52.(a) Give any two reasons why it is important to wash hands before eating food.

remove germs, avoid contamination, avoid diarrhea

(b) Apart from washing, mention any two other activities one can do to maintain personal hygiene.

(i) brushing teeth

(ii) bathing

(iii) groom fingers nails, washing clothes, combing

53.(a) Name two natural resources in the environment that enable green plants to make their food.

Carbon dioxide, Water, sunlight

(b) What is the name of the process in (a) above?

Photosynthesis

(c) Which gas is given off during this process?

oxygen

54. (a) Name any two products got from sheep.

Wool, mutton, skin

(b) What does shearing refer to in sheep rearing?

Shearing is removal of wool from sheep

(c) How can a farmer control pneumonia in sheep?

Providing shelter and well ventilation

55.(a) What force makes a pencil to reduce in length as one writes?

Friction

(b) Name any one form of energy produced by the force in (a) above as one writes.

Sound and heat

(c) Give any two disadvantage of the you have named (a) above to the writer

Slows speed, much effort required; wears out the pencil.

PLE INTEGRATED SCIENCE 2010

1. Name the sense organ for hearing.

- Ear, lateral line, feelers, antennae

2. Give one item used for cleaning hands after visiting a latrine or toilet.

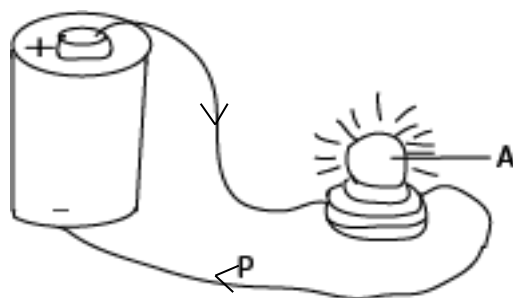
- Water ,Soap

3. State one way in which rain may be a disadvantage to a crop.

May lead to flooding, makes transport difficult, destroy crop, delaying of drying

The diagram below is of a simple circuit

Use it to answer questions and 4 and 5



4. Draw an arrow on line **P** to show the direction of the flow of electricity.

5. Apart from light, which other form of energy is produced at A?

Heat

6. What is the importance of dipping cattle?

- Kills ectoparasite, prevent tick-borne disease , to prevent east coast fever

7. Write down one bad behaviour which is a result of drug abuse.

Defilement, rape, robbery, sadism, masochism, aggression, arson

8. Name one type of seed dispersal.

Animal dispersal, Water dispersal, Wind dispersal, Self-mechanism

9. Sunbirds visit flowers to get nectar, how do plants benefit from these birds?

Plants get pollinated

10. Give one way in which the cause of a scald is similar to that of a burn.

Both injuries are caused by heat energy

11. Name the best soil for making pots.

Clay soil

12. Write down one block in a food path.

Pests, diseases, flood, drought, poor

13 Give one way in which health education is important in controlling over population.

- it encourages family planning ,help to avoid unwanted pregnancy ,delays a girl from getting pregnancy by keeping them in school

14. How can a farmer make use of cow dung produced by his animals?

Turns cow dung into manure, fuel, biogas or building material

15. State one way in which hens are important in prevention of deficiency diseases in man.

- source of proteins ,- provide eggs - Provide meat

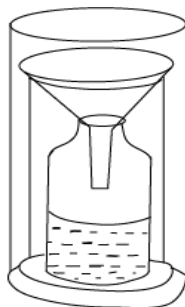
16 Arrange the following organisms in the correct order of a food chain.

Leaves → Caterpillar → bird dog

17. Why is a person with hook worms likely to suffer from anemia?

Hookworm suck blood

The diagram below is a weather instrument. Study it and answer question 18



18. What is the use of the instrument in a weather station?

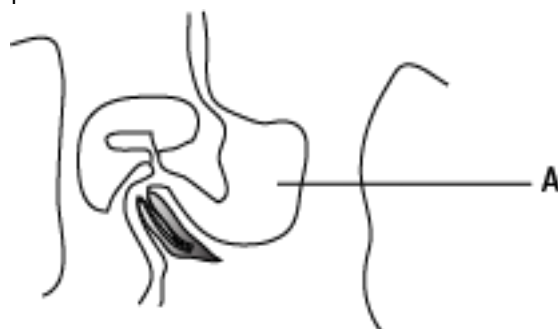
To measure amount of rain fall received

19. Give a reason for keeping Ebola victims away from other people.

To prevent easy spread

The diagram below part of the human digestive system.

Use it to answer question 20



20. Name the class of food which is digested in the part marked A.

Protein

21. Write down one way in which a primary seven pupil can help in the control of cholera in a community.

- ✓ **help sensitize community**
- ✓ **proper use of latrine, washing hands after visiting the toilet**
- ✓ **boiling drinking water, covering food, washing hands before eating food**

22. Give one way in which the preservation of millet and fish differs.

- a) fish may be preserved by salting unlike millet**
- b) fish may be preserved by smoking unlike millet**
- c) fish may be preserved by refrigeration unlike millet**

23. State one way of controlling Nagana in an area.

Clearing bushes, Spraying using insecticide, Using tsetse fly traps

24. Give one example of a plant with prop roots.

Maize, sorghum, wheat, barley, oats

25. Name the type of family where there are parents and their biological children only.

Nuclear family

26. Write down one function of joint in a human body.

Allow movement in the body

27. You are a health prefect in your school. Give one activity you would do during a health parade.

- **checking finger nails, teeth, hair, uniform, body to see whether they are clean and tidy.**
- **Giving health message.**

28. How is wind useful to human beings?

**For drying clothes, flying kites for winnowing
Propelling dhows, boats & ship Making electricity Running wind mills**

29. Why is mercury used in a thermometer instead of water?

- **expands uniformly**
- **does not wet glass**

30. State one natural source of sound energy.

Thunder, falling water, water falls, volcanic eruption, animals, or earthquakes

31. Write down the function of testes in a human reproductive system.

Produce sperm, Produce testosterone

32. Give the difference between river blindness and night blindness

River blindness is caused by Onchocera volvulus while night blindness is caused by lack of vitamin A.

33. How is a thermos flask helpful in a home?

By keeping hot things, hot and cold things cold

34. A part from absorption of water and mineral salts one other use of roots to a cassava plants.

Storage of food

35. State one effects of heat on a metal

- **makes a metal to expand.**
- **makes a metal to melt**

36. How does mulching help to keep moisture in the soil?

Reduces evaporation

37. What determines the size of the image in a pinhole camera?

- Distance of the object from the pinhole

- distance of pin hole from the screen

38. Give one way in which energy from animals can be used.

Ploughing, transport, pulling carts

39. Write down the first Aid you would give to a person who has been bitten by a poisonous snake on the lower part of the leg.

Tie slightly above the bitten part

Take to the nearest health unit

Apply a black stone

40. Why does a coin sink when it is placed in a basin full of water?

A coin is denser than water

SECTION B (60 Marks)

Questions 41 to carry four marks each.

41. (a) Name one natural and artificial source of light.

(i) Natural: sun, star, glow worm, fireflies, lightening, volcanic eruption

(ii) Artificial: electric bulb, candle, lamp, television set, torches

(b) Why is the moon not regarded as a source of light?

The moon reflex light from the sun

(c) Give one way in which reflection of light is important to man.

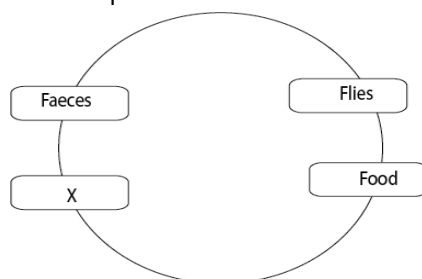
(d) Enables man to see, Used in periscope

(e) used as Dressing mirror, used in Salons

(f) Side mirror to see rear cars, Supermarket to see thieves, Driving mirror

The diagram below shows how disease can be spread through the 4Fs

Use it to answer question 42.



42.(a) Give the word which should be in the box marked X

Finger

(b) Name two activities which can be done to avoid the spread of diseases through food.

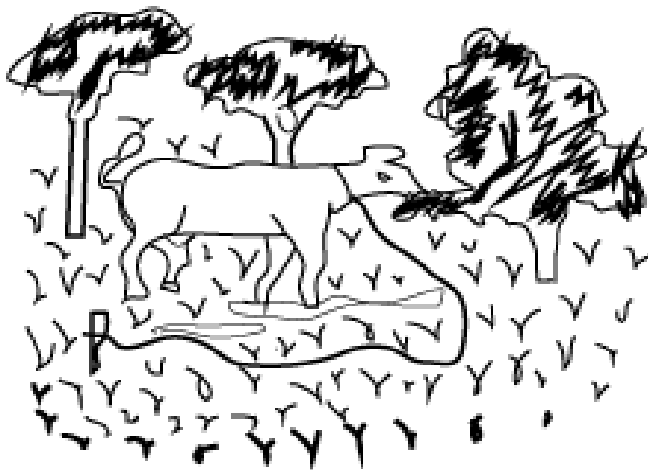
(i) covering food (ii) boiling (iii) washing hand before handling food

(iv) cooking (v) washing fruits before eating them

(c) What structure on the body of fly makes it spread diseases?

Hair on its body

The diagram below shows one of the methods of grazing goats in Uganda. Study it and use it to answer question.



43.(a) Name the method of grazing goats shown in the diagram.

Tethering / roping

(b) Give two advantages of using the methods shown in the diagram.

(i) control over grazing

(ii) Prevents destruction of farmer's crop

(iii) prevent the animal from straying

(iv) Gives a farmer to do other activities

(c) write down one disadvantage of using this method.

Animal can easily be stolen

Animal is exposed to predators

44. Match the items in list A with their function in list B

List A	List B
Red blood cells	Stop bleeding when the skin is cut.
Arteries	Carry oxygen around the body
Valves	Carry blood away from the heart
platelets	Prevent back flow of blood in veins

(a) Red blood cells: **carry oxygen**

(b) Arteries: **carry blood away from the heart**

(c) Platelets: **stop bleeding when skin is cut**

(d) Valves: **prevent back flow of blood**

45. (a) Give two benefits of planting trees in your school compound

(i) work as wind breaks

(ii) for timber, for fruits, shade, fence, beauty, herbal medicine, study purpose

(b) What two things can you do to protect plants in your school compound?

Fencing, watering, mulching, pruning, manuring, spraying, staking, pegging

46. (a) Name the type of cattle kept for milk production.

Dairy cattle

(b) Give one example of exotic breeds of cattle which are the best for milk production.

Jersey, Friesian, Sahiwal

(c) Write down two activities a farmer should do in order to get clean milk from a cow.

- d) **washing hands, udder, utensils**
- e) **filtering milk**
- f) **covering milk containers**
- g) **test for mastitis**

47. (a) State one primary health care activity children can do to help their mothers when cooking.

Sweeping kitchen, washing utensils, fetching water, drying containers, whipping utensils

(b) Write down three health care activities that can be provided to the elderly in our homes.

- | | | |
|-----------------------------|-----------------------------------|------------------------------|
| (i) bathing him/her | (ii) cutting finger nail | (iii) cleaning room |
| (iv) washing clothes | (v) feeding them | (vi) giving treatment |
| (vii) beddings | (viii) cleaning their room | (ix) iron |

48.(a) Name two scavengers in the environment

(i) Vulture (ii) Marabou stork (iii) crows (iv) Hyena

(b) In which way are scavengers useful in the environment?

Clean the environment

(c) Give the difference between a predator and a scavenger.

Predator kills its prey while the scavengers feed on dead organism

49. (a) Which organ removes urine from the body?

Kidney

(b) To which body system does the organ that removes urine from the body?

Excretory system

(c) Where does urine collect before it is removed from the body?

Urinary bladder

(d) Name one substance found in urine.

Urea, water, uric acid, salts

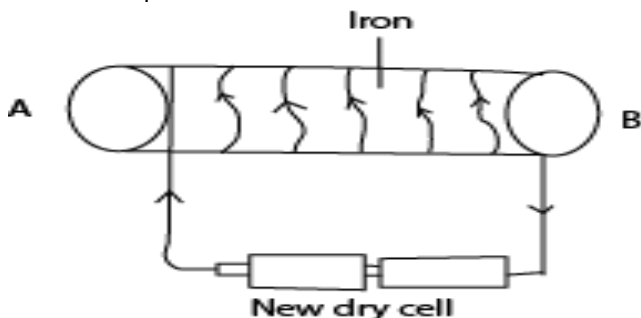
50. (a) Name two water resources in Uganda that provide us with proteins.

(i) fish (ii) snakes (iii) hippopotamus

(b) Give two human practices that can lead to the destruction of such resources.

(i) over fishing (ii) fishing young fish (iii) using poison to kill fish

The diagram below shows a method of making a magnet. Study it and use it to answer question 51.



51(a) Name the method of making a magnet shown in the diagram

Electrical method

(b) What pole will the part marked A become?

North pole

(c) What would you do to the dry cells in order to increase the strength of the magnet?

Increase number of battery cells

(d) Apart from the method shown in the diagram, name any other method of making a magnet.

Induction method, single stroking, or double stroking

52.(a) Name the germ that cause HIV/AIDS.

Virus, HIV

(b) Apart from having sex with an infected person, write down two other ways in which one can get the germ that causes HIV/AIDS

(i) From mother to child at birth

(ii) sharing sharp objects

(iii) circumcision

(c) ABC is a way of controlling the spread of the germ that causes HIV/AIDS. What does A stand for?

Abstinence from sex.

53.(a) Apart from killing people, give two other dangers of lighting

Cause injury, destroy properties, causes wild fires.

54. In an experiment, salt is mixed with water stirred until it dissolves to make a solution.

(a) What do the following act as in the experiment?

(i) Salt - **solute**

(ii) Water - **solvents**

(b) Name any other substance that could be used instead of salt.

Sugar or glucose

(c) How can salt be removed from the solution?

By evaporation

55. Why are vaccine used in the prevention of certain diseases?

To boost/induce body immunity

(b) How is the measles vaccine given to a baby?

Through injection

(c) Apart from immunization, state two other ways in which a baby's immunity can be improved.

(i) by breast feeding

(ii) eating balanced diet

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1. Name one domestic used for protection in a home.

Dog

2. Give the function of a micropyle to a germinating seed.

Allow entry of water and air into the seed during germination

3. What general name is given to animals with a backbone?

Vertebrate

4. Name the type of preservation where slow burning fire is used to dry food

Smoking

5. Give one pest which destroys the roots of root crops in gardens

Moles, rats or squirrels

6. What state of matter is smoke?

Gaseous state

7. Give a reason why a tsetse fly is dangerous to cattle.

It spread nagana to cattle and sleeping sickness to man

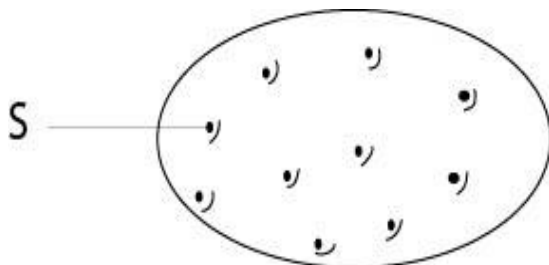
8. How is reproduction in beans different from that in ferns?

Beans reproduce by seed whereas fern reproduce by spores

9. Write activity that can help to reduce snake bites in homes.

Slashing the bushes around a home and rearing cat to eat snakes

10. The diagram below is of an Irish potato tuber. Use it to answer the question that follows.



What is the use of the part marked S?

It develops into a shoot system

11. Why is immunization of children carried out free of charge in Uganda?

To enable all children be protected from the killer diseases

12. Write one reason why people working in dirty areas should wear gumboots.

To prevent cuts to the legs, To prevent entry of germs, To prevent acquisition of worms

13. Why should young girls avoid getting pregnant?

- ✓ **It may terminate their education to care for their siblings**
- ✓ **They may fail to deliver the child due to narrow vaginal canal**
- ✓ **Their children may die due to lack of enough parental care**
- ✓ **They may be attempted to abort and die in the process; They may bleed to death during delivery.**

14. What type of farming should a farmer use in order to harvest both crops and wood?

Agroforestry

15. The diagram below shows a method of making water clean. Use it to answer the question that follows.



Name the method used above: **filtration**

16. Why do projects thrown in the air fall back on the ground?

Due to the force of gravity

17 Why should communities fence open spring wells?

To prevent contamination by animals

18. State one ways of preventing athlete`s foot disease.

Avoid sharing shoes, Keep your feet clean and dry, Change socks regularly

19. Why is an ostrich unable to fly?

Has small wings that cannot support the body, It is too heavy

20 Apart from trachoma, name one other eye disease.

- ✓ **Conjunctivitis (pink eyes) which cause the conjunctiva to swell**
- ✓ **Sty appears like a small boil on the eyelid which is sign of anemia or diabetes.**
- ✓ **Night blindness due to lack of vitamin A**
- ✓ **River blindness caused by small worms called Onchocera**
- ✓ **Syphilis, Gonorrhea**
- ✓ **Cataract which causes the eye lens to appear opaque**
- ✓ **Corneal ulcer caused by an injury on the cornea.**

21. State one-way holes in the soil crated during brick –making may contribute to the spread of malaria in an area.

Accumulate stagnant water into which mosquitoes` breed

22. State one natural cause of a family failing to have enough food.

Drought, flood, fire, volcanic eruption, land slide

23. Name one material used to guard against electric shocks.

Gloves, rubber, dry wood, plastic

24. Give one activity the community can do to reduce road accidents.

There should be Zebra crossing for pedestrian to cross safely

They should be road signs, Avoid over speeding, Putting humps in dangerous spot

25. Name one activity carried out by farmers to remove unwanted plants from their gardens.. **Weeding**

26. Give one way in which claws are important to birds.

Hunting and gripping prey, Killing and tearing prey

27. To which group of simple machines does a ladder leaning against a wall belong?

Inclined plane

28. Why is it a bad practice to store cooked food in room where domestic animals are kept?

Food may get contaminated with feces

Animal may eat the food, Animals may step on food

Food may be contaminated with germs from animal bodies

29. Write one method of rearing cattle used in towns.

Paddock system ,Zero grazing/tethering

30. State one similarity in structure between a snail and earthworm.

Both lack a backbone, They both have hydrostatic skeleton

31. Apart from rock particles and living organisms, name other part of soil.

Water ,Air, Humus

32. What happens when an opaque object is placed in as path of light?

A shadow is formed

33. Name the kind of energy possessed by water at 100° C.

Heat and kinetic energy, heat energy

34. Give one factor to be considered when choosing a site for a school garden.

Land, Good drainage, Fertile soil ,Availability of water for watering, Distance from the school

35. The diagram below shows a stage of development of an animal.

Use it to answer the question that follows.



Name one animal that develop from this stage.

Frog or toad

36. State one common problem which adolescents face

Peer pressure leading to attraction of opposite sexes

Inability to control their feelings, Early pregnancy, Identity formation

37. Why is breast feeding very important to a mother?

It is a natural birth control method, It creates a love bond between a mother and a baby, Breast milk has no cost hence relieves the mother stress to buy milk

38. How do plants reduce the amount of carbon dioxide in the atmosphere?

They use it for photosynthesis

39. Name the part of a flower that holds the anther head. **filament**

40. Give one reason why people who get badly burnt are given plenty of fluids

To prevent dehydration., To replace water lost in fluids

SECTION B (60 MARKS)

Question **41** to **55** carry **four** mark each

41. The following diagram shows two types of teeth in human beings. Use it to answer question that follow.



(a) Name the type of tooth marked:

(i) A: **Canine.** (ii) B: **incisor**

(b) Give the use of each of the teeth in the diagram above.

(i) A **for tearing food** (ii) B **for cutting food**

42.(a) How does a guitar produce sound when its string is plucked?

By vibration

(b) How can the pitch of a guitar be changed?

- by tightening the string - by loosening the string - by increasing the thickness of the string

(c) Name one way of storing sound.

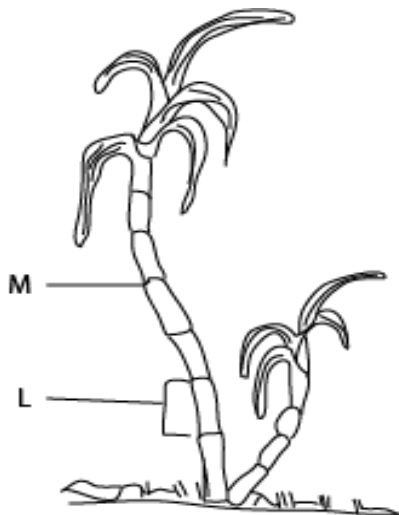
On the compact disc (CD) . Through tape recorder.

(d) Give a reason why sound cannot travel through a vacuum.

There no matter to vibrate

43. The diagram below is of a sugarcane plant.

Use it to answer questions that follow.



(a) Name the part marked with letters M and L

(i) M: **node** (ii) L: **internode**

(b) What food value is got eating sugar cane?

carbohydrates

(c) How is such a sugarcane plant propagated

By stem cutting

44.(a) State one way in which a nursery bed is important to a farmer.

It protects seedlings from harsh weather conditions like too much rainfall and sunshine

It enables easy monitoring of seedlings

Enable a farmer to know which seedling are ready for transplanting

(b) Name two vegetable crop commonly grown in a nursery bed

(i) vegetable (ii) carrots (iii) tomatoes (iv) tomatoes

(c) Give one way in which a farmer can care for crops in nursery bed.

- weeding. - watering. sheltering

45.(a) Write one dangerous substance found in tobacco smoke.

Nicotine and tar

(b) Give the meaning of each of the following:

(i) active smoking: **direct smoking of tobacco through cigarette and/or smoking pipe.**

(ii) passive smoking: **breathing in air containing tobacco smoke by non-smoker.**

(c) What piece of advice can you give to smokers to help them to stop the habit?

- encourage them to be busy by reading books and playing games

- keep with non-smoker friends in free time to avoid being restless.

- avoid company of smokers to avoid passive smoking

- tell about the dangers of smoking

46. The density of sand is 3 grams per cubic centimeter. Its mass is 270 grams. Find its volume.

Density =

47. (a) What is First Aid?

First Aid is the first help give to a casualty (accident victim) before being taken to a healthy center or hospital for treatment.

(b) List any two things found in a first Aid box.

Bandage, Scissor, Plaster

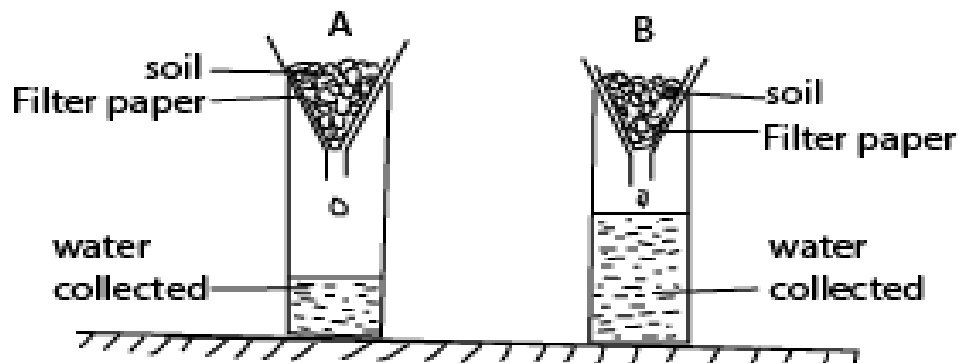
Pain killers like Panadol and diclofenac, Cotton, Spirit, Razor blade

(c) State why every school should have a First Aid box.

- to handle emergency cases in order to reduce on the extent of injury

- to save life in case of overbreeding

48. Equal amount of water were poured into soil A and B shown in the diagram below:



(a) From which soil did more water drop?

B

(b) State why more water dropped from soil you have named in (a) above.

Soil B has big particles than soil A.

(c) Name the type of soils in B **Sandy soil**

(d) Give one use of the type of soil in **A**

Moulding, Farming

49.(a) Write two activities that help to promote good sanitation in a home

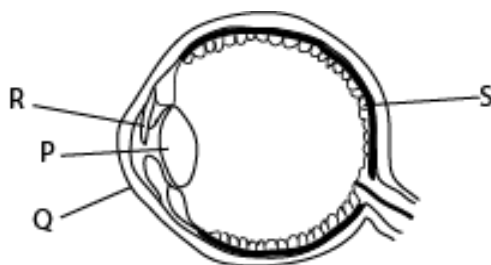
- **proper disposal of rubbish**

- **regular cleaning of toilets and latrines. - maintaining cleanness of a house**

(b) Name two diseases that may attack a family due to poor sanitation.

Cholera, Dysentery, Typhoid, Diarrhea, Worms

The diagram below shows a human eye. *Study it and use it to answer question that follow.*



(a) Name the part marked:

(i) **P: lens** (ii) **Q: cornea**

(b) What is the function of the part marked R?

Controls amount of light entering the eyes

(c) which letter on the diagram shows where images are formed

S (retina)

51. the table below shows weather instrument and what they measure.

Match the items in list **A** and those in list **B**

List A	List B
Wind vane	Amount of rain
Barometer	Speed of wind
Rain gauge	Amount of air pressure
Anemometer	Direction of wind

(a) Wind vane: **direction of wind**

(b) Barometer: **amount of air pressure**

(c) Rain gauge: **amount of rain**

(d) Anemometer: **speed of wind**

52.(a) What name is given to the process that turns sugar to alcohol?

Fermentation

(b) Apart from making alcohol, state two other ways the process you named in (a) can be useful to human beings.

Manufacture of dairy products like yoghurt, Use for baking

(c) Name the fungus used in this process.

Yeast

53.(a) Name the process that takes place in the air sacs of a human lung.

Gaseous exchange

(b) What prevents the trachea (wind pipe) from closing during breathing?

It is made of cartilage rings that do not collapse under low pressure

(c) Give two products found in the air we breathe out.

Carbon dioxide, water

54.(a) State the function of each of the following structure in the human skeleton.

(i) Ligament: **joins a bone to a bone**

(ii) Tendon: **joins a bone to a muscle**

(b) Give one example of a long bone in a human skeleton.

Femur, Humerus, tibia, fibula, ulna, radius.

(c) Name one disease that affects a human skeleton.

Polio, rickets, osteomyelitis, Yaws, cancer of the bones

55. (a) Name the germ that causes gonorrhea.

Gonococci

(b) Give one sign of gonorrhea infection in a newly born baby

Blindness

(c) How does gonorrhea infection increase the chances of a person getting HIV/AIDS?

It weakens the white blood cells making them unable to fight the virus that causes AIDS

(d) How can a person avoid getting gonorrhea?

Abstinence from sex

Faithful to one sexual partner

Practice protected sexual intercourse

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SECTION A (40marks)

Questions 1 to 40 carry one marks each

1. Name one body organ in man that makes use of light energy from the sun.

Eye

2. Name one cold- blooded vertebrate that has a body shell.

Tortoise, snail

3. Mention any one way in which a biological change is similar to a chemical change.

It is irreversible: example growth like burning fire wood are irreversible.

4. How can a person fruit plant benefit from growing near a mango tree?

Obtain support

5. Write down the vector that spreads elephantiasis.

Culex mosquito

6. To which down group of animals does the one shown in the diagram below belong?



Mammals

7. Give any one use of wearing sun glasses.

Prevent direct sunrays that may damage the eye

8. Why is it maize grain grouped under monocotyledonous seeds?

Has one cotyledon

9. What is the importance of a web to a spider?

For trapping flies like spider, For movement from one place to another

10. How does fish help in controlling the spread of malaria?

Feed on mosquito larvae reducing mosquitoes

11. Mention any one way in which communicable diseases are spread.

Direct contact between an infected person and a health person.

Sharing clothes, towels, bedding, Shaking hands, Taking in breath from infected person

12. Whenever peter opens or closes his door, the hinges makes noise. What can he do to stop the noise when he is opening?

Oiling the hinge to reduce friction

13. Name one structure in a human which connects bone to bone.

Ligament

14. Give any one way in which petrol in a car is similar to food in a human body.

Both petrol and food are oxidized to produce energy

15. How are ferns, mosses and liverworts similar?

They are non-flowering plants ; They reproduce by spores

16. State any one health reason why the building of industries should be limited in an area.

To prevent pollution in residential areas that would cause suffocation.

Reduce noise in residential area that may affect the ear drum

17. Why should you chew food before swallowing it?

To break food into small particles that increases surface area for enzyme activity and to ease swallowing.

18. How is a chameleon important to human beings?

Feeds on vectors

19. Suggest any one use of a tourniquet.

It is tied tightly around the arm of arm to reduce bleeding from a cut or injury.

20. State any one way in which soil is important to insects.

It is a habitat for insects like termites, It contains organism on which insects feed, It is food for some insects

21. What system is responsible for the removal of waste materials from our bodies?

Excretory system

22. State any one result of two naked wires carrying electric current getting in touch with one another.

Short circuit

23. Give the function of the epiglottis in the respiratory system.

It opens to allow air into the trachea and closes during swallowing to prevent food entering the trachea.

24. Write down the type of venation shown by the diagram below



Network venation

25. State the organisms that can be controlled by use of antibodies.

Germes

26. Write down any one piece of advice you can give to a friend in order promote their personal hygiene.

Bathe regularly, Brushing teeth regularly, Wearing clean clothes

27. Why is a microscope important to doctor?

To observe small organisms such as germs

28. How does boiling of water help in the control of typhoid.

It kills typhoid germs

29. State the function of the amniotic fluid during pregnancy.

Reduces friction for the baby ,absorbs shock.

30. Which type of electricity is produced by generators?

Thermal electricity since a generator uses electricity

31 Give any one cause of cause of malnutrition in adults.

Poverty-some people cannot afford food or land to cultivate it

Drought-which causes of death, Pests and disease, Floods lead to foot shortage food.

32. How is TASO (The Aids Support Organization) useful to HIV/AIDS victims?

Provide counselling and guidance, Provide free treatment to HIV and AIDS victims, Provide food rich in nutrients free to HIV victims

33. What process makes dew to disappear during hot days?

Evaporation

34. Give any one use of reptiles to man.

Provide skin for making drums, Provide income from tourist attraction

They are source of medicine such a venom, Source of food

35. How are green plants important in the water cycle?

Produce water vapour through transpiration, the vapour condense to form rain

36. Mention any one natural resource found under the ground and is used as fuel.

Petroleum,. Coal

37. Apart from getting medical treatment, write any other piece advice you can give to a friend suffering from flu.

Take a lot of fluids, Take enough rest, Go to a health personnel

38. Name the state of matter in which sound travels fastest.

Solid state

39. Why is it easier for Otim to push a wheel barrow full of manure downhill than uphill?

Downhill, Otim is assisted by the force of gravity

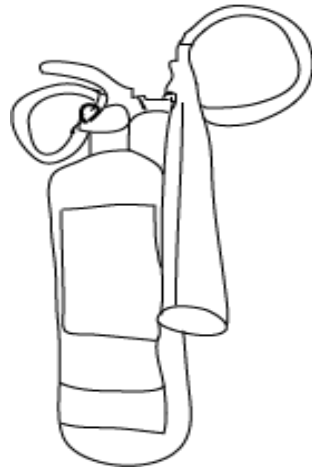
40. State an immunisable disease which enters our bodies through cuts and wounds.

Tetanus

SECTION B

Questions 41 to 55 carry four marks each

41. Use the diagram below to answer questions that follow.



(a) What name is given to the above equipment?

Fire extinguisher

(b) Why is the above equipment always painted with bright colours?

To be seen easily

(c) Why is such an equipment recommended to be in school?

To be used in case of fire outbreak

(d) What gas is contained in the above equipment?

Carbon dioxide

42. (a) Apart from the skin, give any one example of a respiratory organ.

Lungs

(b) List any two diseases which affect the respiratory organ in humans

(i) Lung cancer (ii) Pneumonia

(c) Give any one practice by humans which may lead to a respiratory disease.

Smoking

43.(a) Suggest two reasons why young farmers' clubs are important in schools

- (i) to organize pupils in order to deliver information for school activities
- (ii) to update them new method of agriculture.

(b) Give any two activities that can be done by young farmers' clubs in school

- (i) learning better methods of farming
- (ii) demonstration of farming on a school piece of land

44. (a) Name any two of the 5Rs in waste management

- (i) Recycling (ii) reuse (iii) Refilling

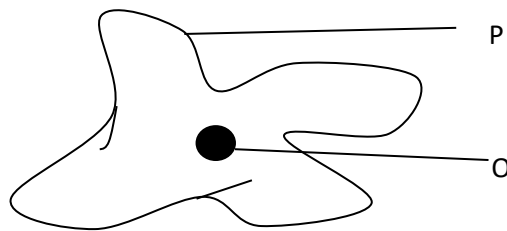
(b) Suggest any two effects of poor waste management in the environment.

(i) it leads to spread of diseases to man

(ii) it leads to environmental degradation

45. The diagram below is of an amoeba. Use it to answer questions that follow.

Image



(a) What kind of organism is an amoeba?

Unicellular organism

(b) Name the structure indicated by letters:

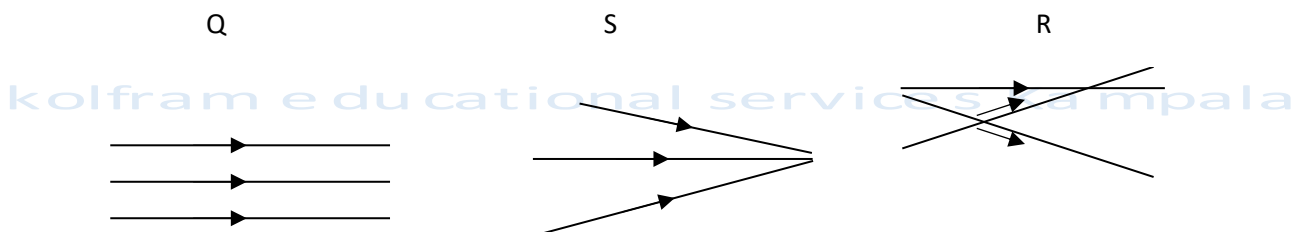
(i) O: nucleus

(ii) P: cell membrane

(c) How is the amoeba able to move from place to place?

By use of pseudopodia

46. The illustration below show different types of light rays. Use them to answer questions that follow:



(a) Name the following rays of light.

(i) Q Parallel rays. (ii) S Converging rays

(b) Suggest the type of lens that can be used to make light rays move as shown in R above.

Concave lens

(c) What eye defect is corrected by a lens which makes rays move as shown in R?

Short sightedness

47. A poultry farmer has his chicken passing out blood –stained dropping and have drooping wings

(a) What disease is likely to have attached the farmer`s birds?

Coccidiosis

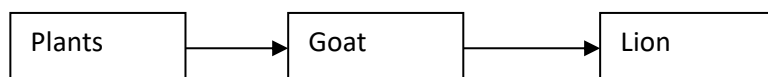
(b) Suggest two ways in which the neighbors to the farmer can prevent their birds from contracting the above disease.

(i) Keeping infected birds from healthy ones (ii) vaccination

(c) Why should the farmer separate the birds with the above given conditions from the rest?

To prevent healthy birds from acquiring disease from the infected bird.

48. The diagram below is of a food chain. Study it and answer the questions that follow.



(a) Name the producer

Plant

(b) Which living organism in the diagram is herbivorous?

Goat

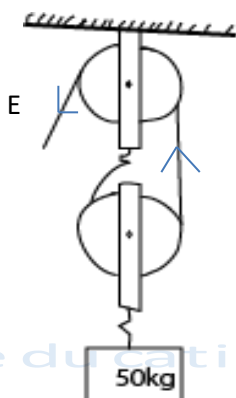
(c) Why is the organism in (b) above herbivorous?

Feeds on plants

(d) Name one way in which plants benefit from the goats.

Carbon dioxide for photosynthesis, Manure

49. The diagram below is of a pulley system. Use it to answer questions that follow.



(a) Name the types of pulley system shown above

Block and tackle pulley system

(b) Use an arrow to show the direction of effort.

(c) If the mechanical advantage of the machine is 2 and the load being carried by the machine is 50kg. Find the effort needed to raise that load.

$$MA = \frac{L}{E}$$

$$E =$$

$$E = 25 \times 10 = 250N$$

50. (a) Give two reasons for placing utensils on a rack

- (i) so that all utensil is dry,
to avoid direct contact with disease spreading organisms.
- (ii) so that utensil remain clean

(b) Why should a rack be contracted with stands at least 1 meter above the ground?

To prevent utensil from getting contaminated from splashes.

(c) Suggest one danger of leaving utensils for a long time outside on a rack.

They may rust

51.(a) Mention any one method of harvesting root crops

uprooting

(b) Give any three ways in which weeding helps on the proper growth of root crops.

- (i) reduce competition of crops for nutrients with weed
- (ii) to ensure the root crop get enough sunlight
- (iii) to ensure that root crops have enough space

52. (a) What name is given to the liquid part of blood?

Blood pressure

(b) Name one component of the liquid part of blood.

Water. Mineral salt

(c) Give any two uses of the liquid part of part.

- (i) Transport hormones
- (ii) Transport nutrients in blood

53. Give the meaning of the following words as used in cattle –rearing

(a) Insemination: inserting the semen of male cow into the vagina of a female cow for fertilization.

(b) Crossbreeding: where a local and exotic breed mate to produce an intermediate offspring

(c) Castration: Activity carried out on a bull to make it unable to have sex and reproduce.

(d) On heat: this is a period of time when a cow is restless in desire to mate with a bull.

54.(a) What is meant by the term silting?

Silting is the collecting and deposition of soil, sand or mud at the sides or the bottom of the river

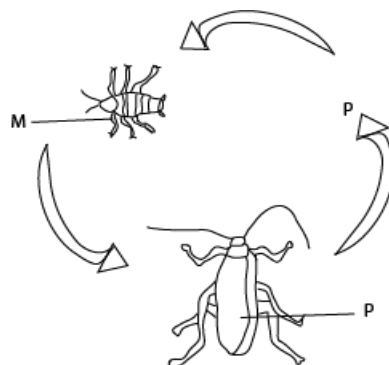
(b) Apart from killing fish, how else does silting affect fish?

Destroy breeding spaces

(c) List any two major causes of silting

- (i) soil erosion
- (ii) Fast flow of water in river.

55. The diagram below shows a life cycle of an insect. Use it to answer the question that follow.



(a) Name stages marked M and P

- (i) M.-** Nymph
- (ii) T-** Adult

(b) Name one insect that undergoes the above stages of development.

Cockroach

(c) Draw the stage marked with letter P

Egg.

PLE INTEGRATED SCIENCE 2007

SECTION A

1. Which reptile change the colour of its body as its moves from one place to another ?

Chameleon

2. Give any one way in which bush burning leads to soil erosion.

It removes vegetation cover and expose soil to agents of soil erosion such as wind, running water.

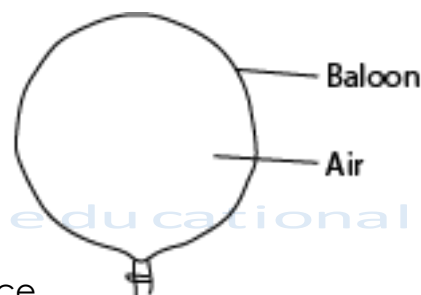
3. How are bats different from hens in their way of reproduction?

Bats give birth to young ones whereas hens lay eggs.

4. How does immunization promote health in a child?

Protect the child from killer diseases such as tetanus, Tuberculosis.

5. Give any one property of air shown in the diagram below



Air occupies space

6. Give the difference between evaporation and condensation

Evaporation is a change of a liquid to vapor/gas while condensation is the change of vapor to a liquid

7. Why is an earth-worm called an invertebrate?

It does not possess a vertebral column or back bone

8. Give any one function of the human skeleton.

Provide shape of organism, Provide support, Manufacture red blood cells
Store minerals like phosphorus and calcium

9. Give any one way in which the spread of scabies can be controlled.

Preventing contact of a healthy person with a person with scabies

10. Mention a disease which makes a person to pass out watery stool with blood.

Dysentery

11 State the difference between volume and mass

Volume is the space occupied by matter while mass is a quantity of matter in a substance contains

12. Give any one body characteristic which is common to a spider and a tick

Both have four pairs of limbs, Both have two main body parts

13. What is the main cause of fainting?

Shortage of blood supply to the brain

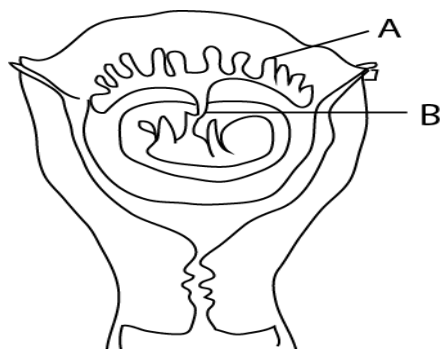
14. Suggest any one way in which human beings use energy light the sun.

To see, To make solar electricity

15. Give any one way in which sweating is important in a human body.

To cool the body, To remove waste product from the body

The diagram below a fetus in the womb. Use it to answer questions 16 and 17



16. Name the part marked with letter A

Placenta

17. State any one way in which the part marked with letter B is useful to the foetus.

Part B is the umbilical cord:

- Conduct nutrients and oxygen to the fetus
- takes away carbon dioxide and waste products from the fetus

18. Which part of human eye works like a film in camera?

Retina

19. Give any one activity that can be done at home to control the spread of malaria.

- ✓ Sleeping in insecticide treated nets
- ✓ Removing stagnant water
- ✓ Slashing around the house

20. In which way is a person who HIV positive different from the one who has developed AIDS?

A person with HIV show no sign of the disease while a student with AIDS has signs like cough, skin rash, fever, loss of weight.

21. Give any one way in which a transparent object differs from an opaque object.

Transparent objects allow light to pass through fully whereas opaque objects do not.

22. What causes kwashiorkor in children?

Deficiency of protein

23. Why is photosynthesis important to plants?

Manufacture food for the plants

24. Give any one reason why human beings breathe in.

To get oxygen for the body

25. What is an enzyme?

An enzyme is a substance that speeds up a biological reaction

26. Give any one reason why plants and animals are classified as living things.

They feed, They grow, They respond to the stimulus, They respire ,They reproduce

27. State any one way in which health parades are important in primary schools.

Educate the pupils about their body

Sensitize the pupils for cleanness, Educate the pupils how to avoid diseases.

28. Apart from painting, give any one other way in which metal can be prevented from rusting.

By oiling, Keeping in dry places, Greasing ,Galvanizing

29. Which type of soil does not allow water to go through it easily?

Clay soil

30. Why is a sling used when giving First Aid to a person with a broken hand?

To minimize movement of the broken hand

31. State any one practice on a school garden that will help to improve soil fertility.

Mulching, Adding manure

32. Why is a tick called a parasite?

It feeds on its host

33. State the difference between the function of a pulmonary vein and that of a pulmonary artery in blood circulation.

- ✓ Pulmonary vein carries oxygenated blood whereas pulmonary artery carries deoxygenated blood

34. Give any one form of energy that is produced during the process of splitting firewood with an axe.

Heat energy, Sound energy

35. Give any one way in which plants benefit from animals.

Plants get carbon dioxide

36. Give any one sign on a school compound which shows that the school environment is degraded.

Poor disposal of wastes, Gully from soil erosion

37. In which way is the function of kidneys similar to that of the skin in a human body?

They are both organs of excretion

38. Apart from the brain, give any one other body organ which is greatly damaged by alcoholism.

Liver

39. How does heat from the sun reach the ground?

By radiation

40. Give any one way in which teeth are important in the digestion of food.

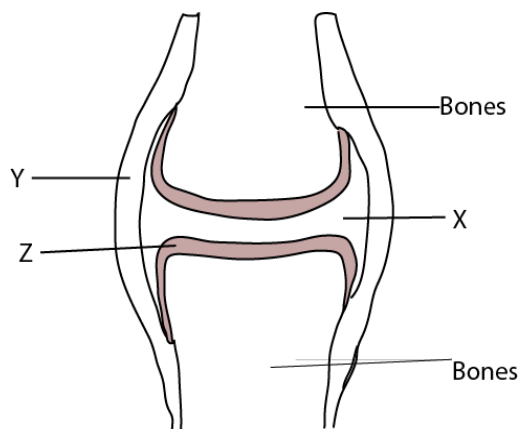
The breakdown of food to ease swallowing

They breakdown food to increase surface area for enzyme action

SECTION B

(Questions 41 to 55 carry four marks each.)

41. The diagram below shows a human joint. Use it to answer the questions that follow.



(a) Name the part marked with letter Y and Z

(i) Y Ligament. (ii) Z cartilage

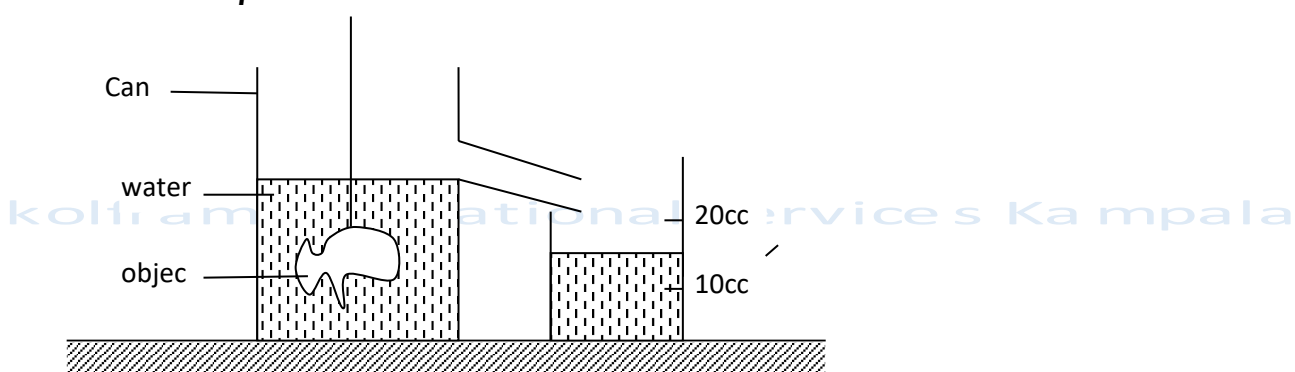
(b) Give any one function of the fluid found in the place marked with letter X

The synovial fluid reduce friction

(c) What type of joint is shown in the diagram above?

Hinge joint

42. An experiment was done by a P 7 class as shown in the diagram below. Use it to answer the question that follow.



(a) When is such a method of finding volume used?

To find the volume of irregular objects

(b) If the object above has a density of 2 g/cm³. Find its mass.

$$\text{Volume} = 15\text{cc}$$

$$\text{Mass} = \text{density} \times \text{volume}$$

$$= 2 \times 15$$

$$= 30\text{g}$$

43. (a) Give any two characteristics that are common to a frog and as crocodile apart from being vertebrates.

(i) they are both cold blooded animals (ii) they are both aquatic animal

(b) How is fertilization of a frog different from that of a crocodile?

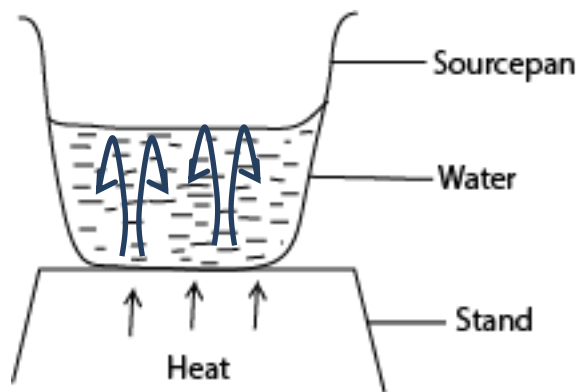
Fertilization in frog is external while that of crocodile is internal.

(c) Name any one other vertebrate that can be classified with a frog

Toad ,Salamander. Newt

44. The diagram below shows a saucepan with some water on fire.

Use it to answer the questions that follow.



(a) How will heat from the fire move to reach the water at the bottom of the saucepan?

Conduction through the saucepan

(b) Which method will enable that heat all the water in the saucepan?

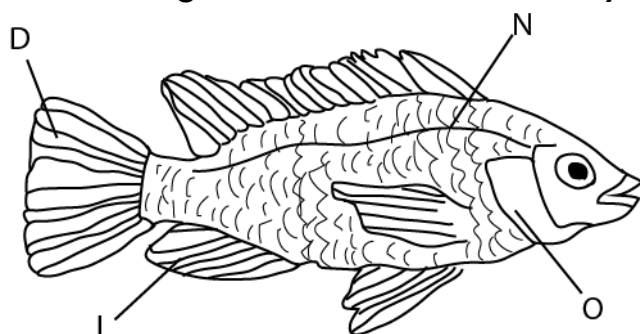
Convection

(c) Use arrow to show the movement of water in the saucepan after it has been heated for some time.

(d) What will happen to the water in the saucepan to show that it is boiling?

Bumps up and down

45. The diagram below is of a fish. Study it and answer the questions that follow



(a) Name the structure marked L

Ventral fin

(b) What is the function of each of the structure marked D and N?

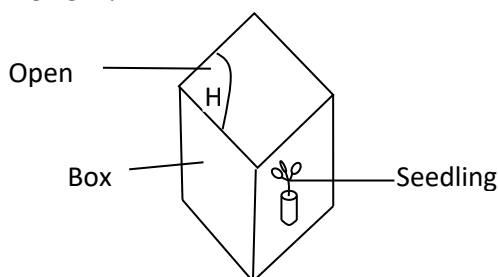
D: propels the fish

N: detects sound waves

(c) State the function of the structure covered by the part marked O.

The structure covered is the gills that are used for gaseous exchange

46. The diagram below, show a seedling in a box Study it and answer the question that follow.



(a) What colour will the leaves of the seedling be if left in this box with H covered for a week?

The color of the leaves turns yellow

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

Absence of light prevents formation of chlorophyll

(c) Give any two things that are likely to happen to the seedling if the part marked with letter H is left open.

✓ It will bend and grow toward the open H

✓ The leaves will turn green

47 (a) Give any one reason why a magnet cannot attract pieces of wood.

Wood has no magnetic properties

(b) Give any three practices that can lead to the destruction of a magnet

✓ Heating

✓ Hammering

(c) Storing east -west direction

48. Bbosa is a poultry farmer. He has 100 layers on his farm. Give any four reasons why he should keep farm records?

(a) to know how much food, they eat

(b) to know how much eggs they lay

(c) to know amount of money he spends on food

(d) to know how much money

49 (a) Why is it a bad practice to apply soil or cow dung on any burnt area of our skin?

They may contain germs

They do not reduce the heat from the burn

(b) Suggest any two reasons why the injured part with a burn or scald is dipped into cold water.

To cool the burnt place

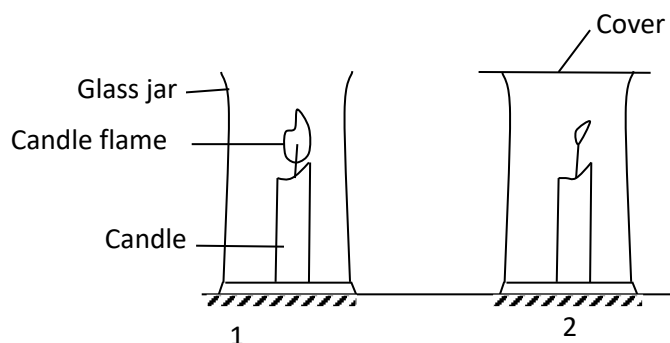
To minimize the effect of the burn

(c) Give any one way of avoiding burns while lifting hot objects.

Use pieces of paper or cloth

50. The diagrams numbered 1 and 2 below show an experiment done by a P7 class.

Diagram 1 shows burning candle in an open jar. In diagram 2, the jar was covered as shown. Use the diagrams to answer the question that follow.



(a) What would happen to the flame in diagram 2 if the cover was removed after a short time?

The candle will burn with a bigger flame

(b) Give a reason for your answer in question (a) above.

The candle burns with a bigger flame due to presence of much oxygen

(c) If the cover had been left on the jar in diagram 2 for a long time what would have happened to the flame?

The flame will go off

(d) Give a reason for your answer in question (c) above.

The flame will go off because oxygen that supports burning is used up

51.(a) What is environmental degradation?

Is the misuse of the environment to an extent that it cannot support life

(b) Give any three natural causes of environment degradation.

(i) floods (ii) drought (ii) volcanic eruption (iii) soil erosion

52. (a) Give any two ways in which mulching is important to the soil.

(i) maintains moisture in the soil

(ii) the mulch decomposes to add manure (iii) mulching stops soil erosion

(b) Suggest any two materials that are commonly used for mulching gardens.

h) grass

i) coffee or rice husks

j) Banana leaves

k) Tree leaves

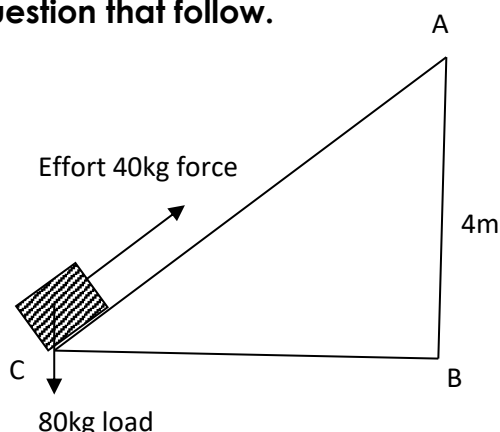
53. State any one function of each of the following parts in simple electric circuit:

(i) Wire conducts electricity. (ii) Battery is the source of current

(b) Mention any two causes of a short circuit

(i) high voltage (ii) contact of naked wires in a circuit.

54. The diagram below shows a machine used for lifting loads. Use it to answer the question that follow.



(a) What distance is the load to be lifted?

4m high

(b) Give the advantage of lifting the load alongside CA.

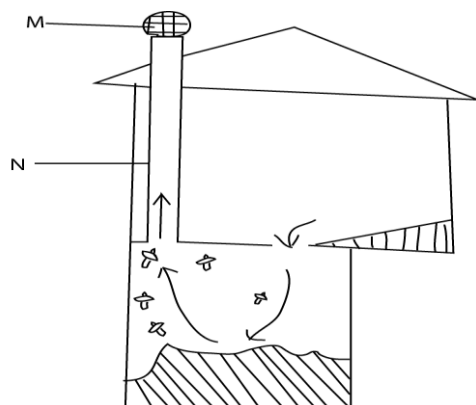
Less effort is used to make work easier

(c) Find the mechanical advantage of the machine above.

(d) How can the machine be improved so that less effort is used to lift loads.

By reducing the angle of inclination of the plane

The diagram below is of a ventilated improved Pit (VIP) latrine. Use it to answer the question that follow.



(a) Name the parts marked M and N

(i) **M** flies screen (wire gauze)

(ii) **N** Vent pipe

(b) Give the function of the part marked M

Prevent flies from escaping from the latrine

(c) What do the arrows in the diagram show?

Direction of air through the latrine

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kolfram educational services Kampala SECTION A

1. What good health habit should be practiced after visiting a latrine or toilet?

Wash hands with soap and water

2. Give any one way in which animals are important during the process of photosynthesis.

Animal produce carbon dioxide that is a raw material in photosynthesis

3. What form of energy does a falling stone have before it reaches the ground?

The stone has kinetic energy due to motion

4. State ant one reason why some plants climb others.

To obtain support to reach light.

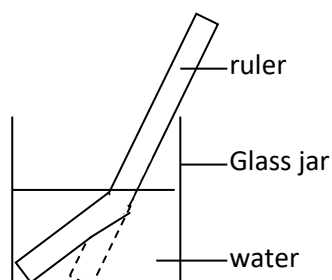
5. Give any one common use of sand at home.

Sand is used for building

For washing utensils

The diagram below shows a glass with water and a straight ruler in it

Use it to answer question 6



6. What causes the ruler to appear bent?

The ruler appears bent due to refraction of light

7. What First Aid would be given to Jamada who has burnt his fingers with a hot metal?

Place the fingers in cold water

8. Give any one practice that can help to control the spreads of cholera in a school.

Eating hot food, Proper disposal of wastes, Washing hands after visiting the toilet, Early treatment

9. Give any one reason why people plant trees around their houses.

Trees act as wind breakers

Trees produce fruits, Trees are used for beauty, Trees provide firewood, Trees provide medicine

10. Apart from the skin and lungs name any one other excretory organ.

Kidney

11. Give any one way in which the breathing of a housefly is different from that of a rat.

Insects breathes through spiracles whereas rat breath through lungs.

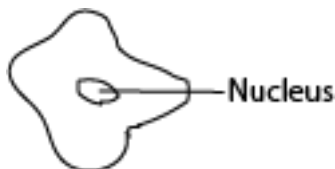
12. Give any one way in which soil is important to a plant.

Soil provide anchorage, Soil provides water to the plant, soil provides nutrients to the plant

13. Why is a wet cloth put on the body of a person with fever?

To reduce temperature

The diagram is of a blood cell. Use it to answer questions 14 and 15



14. What type of blood cell is shown in the diagram?

White blood cell

15. Give a reason for your answer in question 14 above.

Has an irregular shape and nucleus

16. Give any one reason why plants are grouped among living things.

They grow, They respire, They feed, They respond to the stimulus, They reproduce, They excrete

17. Give any one example of a leguminous crop.

Soya peas, ground nuts, beans,

18. How does a snail protect itself from its enemies?

By hiding in its shell

19. Give any one disadvantage of keeping poultry on a free-range system.

- ✓ Birds can easily catch diseases
- ✓ Bird can easily be eaten or stolen
- ✓ One cannot determine how much they have eaten

20. Give any one reason why air is considered to be matter

- ✓ It has weight
- ✓ It occupies space

21. Give any one reason why people like the brick makers, need to feed on more carbohydrates

To get energy

22. Which part of air is necessary for burning to take place?

oxygen

23. Give the meaning of drug abuse.

Drug abuse is the habitual taking of addictive or illegal drugs

24. State any one way of making a magnet

By using single or double stroke method

By using electrical method

25. Which part of the human body does Trachoma attack?

eyes

26. Suggest any one way in which the use of solar energy helps in the protection of the environment.

It reduces the cutting down trees

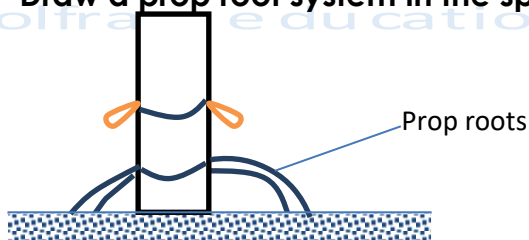
27. Why is a Ventilated Improved Pit latrine left without a cover?

To allow free flow of air through the system

28. How do some people become passive smokers?

By breathing air that contains cigarette smoke from a person smoking.

29. Draw a prop root system in the space provided below.



30. Name any one crop with a root system similar to the one you have drawn above

Rice, wheat, sorghum, millet, maize, sugar cane

31. What causes an echo?

Reflection of sound waves

32. Why does a stone sink when it is put in a bucket full of water?

A stone is denser than water or water is less dense than the stone

33. Give any one way through which worms enter our bodies.

By eating half cooked meat

By moving in dirty places with bare feet

By eating infected, dirty fruits

34. Mention the instrument used to measure the temperature of a human body.

Clinical thermometer

35. What is the process by which seeds grow into seedling?

Seed germination

36. State any one use of an axe in a home.

Splitting fire wood

Cutting tree into pieces

37. Give any one reason why white objects are seen easily even at a distance.

They reflect light

38. Give any one way in which people benefit from bees.

They get honey

They get bees wax

Bees pollinate our crops

39. Which bone in the human skeleton protects the brain?

The skull

40. Give any one characteristic which is common in all the invertebrates.

They possess a vertebral column,

They have internal skeleton

SECTION B

41. John fell off a bicycle and broke his thigh bone.

(a) Name the injury which John got.

A fracture

(b) State any two ways in which John can be given First Aid.

(i) apply a splint at the broken area

(ii) give a pain killer

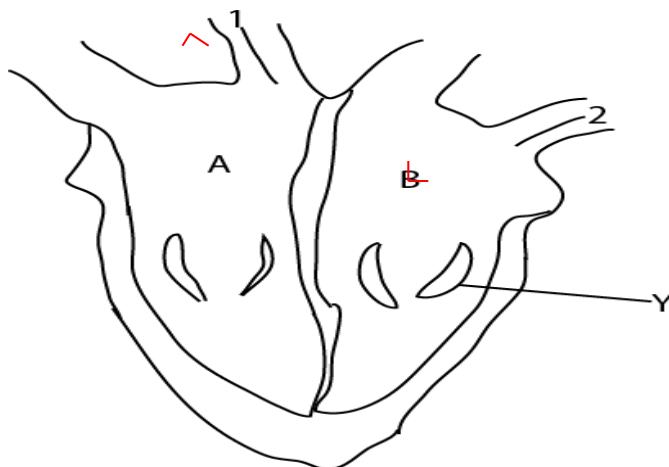
(c) What is the importance of giving first Aid to a person like John?

✓ Reduce pain

✓ Prevent injury from worsening

42. The diagram shows a human heart.

Use to answer the questions that follow.



(a) What is the function of the part marked with letter Y?

Prevent backflow of blood

(b) Give the difference between the blood in the regions marked with letters A and B

Blood in A is deoxygenated while that in B contains oxygenated blood

(c) Put arrows on the short lines marked with numbers 1 and 2 to show the direction of the movement of blood.

43. (a) Name any two part of a plant which provide human beings with food.

- (i) Fruits e.g. mangoes
- (ii) roots e.g. cassava, carrot
- (iii) Stem e.g. sugar cane
- (iv) Leaves e.g. cabbage

(b) Give any two ways in which plants benefits from animals.

- (i) get carbon dioxide
- (ii) nitrogen from excreta
- (iii) when the animal die add to plant manure

44. Below is a list of activities carried out by people in the environment.

Use the list to answer the question that follow.

- Fishing
- Producing a lot of smoke in the factories
- Draining swamps
- Throwing polythene bags on the soil.
- Crop rotation.

(a) Which activity is likely to decrease the amount of rainfall?

Draining swamps

(b) Which activity is likely to spoil the fertility of the soil?

Throwing polythene bags on the soil

(c) Which activity is good for controlling crop diseases?

Crop rotation

(d) Which activity is likely to cause pollution of the atmosphere?

Producing a lot of smoke in the factories

45. The table below shows different group of vertebrates. Use it to answer the question that follow

A	B	C
Birds	Mammals	Amphibians

(a) to which group of vertebrates does each of the following belong?

- (i) Bat: mammals
- (ii) Frog: amphibian

(b) Give any way in which the reproduction of animals in group B is different from that of animals in group C

Animals in group B produce younger ones alive while bird lay eggs

(c) Give any one other group of vertebrate which is missing from the table.

Reptile

46 (a) What is the importance of taking children for immunization?

To improve their immunity against the killer diseases such as measles, tetanus.

(b) Which vaccine is given to the child in the mouth at birth?

Polio vaccine

(c) Give any two ways in which the child's health card is important to the parents

- ✓ Give information of the birth day of the child
- ✓ Enable the child to monitor child's growth

- ✓ Enables the parent to know the when to immunize

47. (a) Give any two reasons why a mushroom is not a plant.

- (i) they lack chlorophyll
- (ii) they do not make their food.

(b) Give any two plants that reproduce in the same way like a mushroom.

- (i) ferns
- (ii) mosses

48. The diagram below shows wooden poles with electricity wires. Use it to answer the question that follow



(a) State any one reason why the wires are loosely fixed.

To allow room for contraction and expansion of the wires

(b) What would happen to the wires if they were tightly fixed?

They would break when they are contracted on cold days.

(c) Give any one reason why wooden poles are usually used to carry electricity.

To protect people and animals from electroshock when they touch the poles.

(d) Why are the wires placed very high up?

- ✓ To reduce theft of the wires
- ✓ To prevent children reaching up the wire

49. (a) Give any one part the human body where each of the following joint is found

- ✓ **Ball and socket joint:** shoulder and hip
- ✓ **Hinge joint:** elbow and knee
- ✓ **Gliding joint:** wrist

(b) Which one of the above joint can make an all –round movement?

Ball and socket joint

50 (a) What is a chemical change?

Is an irreversible change from one form of a substance to another requiring or involving heat and/or light

(b) Give any one example of a chemical change.

Rusting of iron, Burning of firewood

(c) When water change to ice the process is called freezing .Name the process in each of the following changes:

- (i) **Ice to water:** melting
- (ii) **Steam to water:** evaporation

51. (a) Give any one reason why people include proteins in the diet.

- ✓ To grow well
- ✓ To repair worn out tissue

(b) What is the importance of fruit in a diet?

Provide vitamins including vitamin C

(c) State any two ways of protecting children against malnutrition.

Provide balance diet

Give food in time

**52. The list below gives some of the methods farmer use to control soil erosion
Use it to answer the questions that follow**

- Terracing
- Planting trees
- Contour ploughing
- Mulching

Which two of the methods given above are best for?

(a) Land with a gentle slope?

- (i) Planting trees
- (ii) Mulching

(b) Land with a steep slope?

- (i) Terracing
- (ii) Contour ploughing

53. Give any one sign you would see on cattle suffering from the following diseases:

(a) Anthrax:

- Blood sports in milk
- Running nose
- Discharge a dark bloody stool

(b) East coast fever

- Loss of weight
- Laziness
- Diarrhea
- High body fever

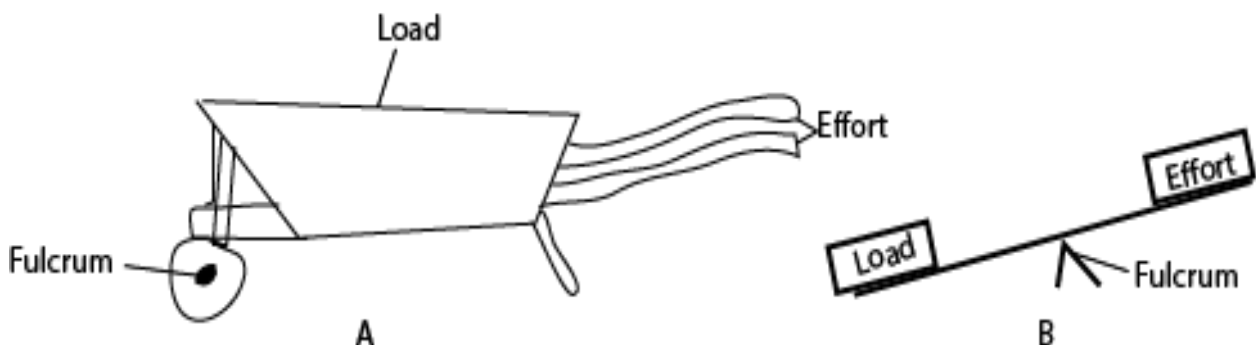
(c) Nagana

- Drossiness
- Loss of weight

(d) Foot and mouth

- Sore foot
- Drooling from the mouth

54. The diagram below shows two simple machines. use it to answer the question that follow



(a) Name the machine marked with the letter A

Wheel burrow

(b) State the class of lever to which each of the above machines belongs:

(i) machine A: second class lever

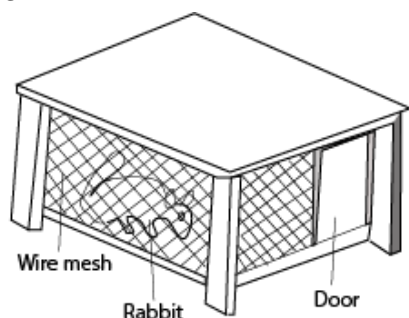
(ii) machine B: first class lever

(c) Give any one example of a machine which works in the same way as the machine marked with letter B

Pair of scissor

Pliers

55. The diagram below shows a rabbit house. Use it to answer the question that follow



(a) Give any one reason why the rabbit house is raised above the ground.

- ✓ Prevent water from wetting the floor
- ✓ Prevent predators attacking the rabbit.

(b) Give any two reasons why wire mesh is used in building a rabbit house.

- ✓ Prevent the rabbit from getting lost
- ✓ Protect the rabbit from predators
- ✓ For good aeration

(c) State any one thing that should be provided to the rabbit in the house.

Food (carrot, cabbage, maize), Water

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SECTION A

1. Give any one reason why animals move from one place to another

To look for food, To look for mates

2. Give any one form of energy produced when a carpenter driver drives a nail into a piece of wood a hammer.

Sound energy, Heat energy

3. Give any one animal fibre found in the environment

Sisal, banana fibre, silk, cotton, wool, cotton

4. What change of state takes place when water is frozen to ice?

Physical change

5. What structures on the leaf of a plant help in the process of transpiration?

Stomata

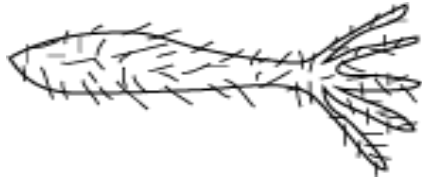
6. How are houseflies able to spread germs?

Germs are carried on hair or feet

7. Give any one proper way of disposing off rubbish in a home.

Burning rubbish, Use a dust bin

Use the diagram of a seed given below to answer questions 8 and 9.



8. How is the seed in the diagram dispersed?

By animals

9. Give a reason to support your answer in question 8 above.

It has hooks that can stick on the hairs of animals and fall off after sometimes

10 In which way is crop rotation a good method of controlling crop pest?

Changing crops breaks the feeding cycle of a pest reducing the number of pests

11. Give any one reason why people commonly use free range system of keeping poultry.

It is cheap

12. What structure in an insect work like lungs in a mammal?

Spiracles

13. What is a stretcher useful in giving First Aid?

It is used to carry causality to the health center

14. Give any one use of saliva in the digestive system.

Softens food, Contains enzymes amylase that digests starch

15. In which state of matter does heat travel by convection?

Air, liquid

16. Why is thunder heard after lighting has been during a rainy day?

Because light travel faster than sound

17. How does painting a metal prevent it from rusting?

Keeps water and oxygen from the metal

18. What a structure enables the absorption of food to take place in small intestines?

- it has thin lining

- villi increase surface area for absorption

19. Give any one characteristics that makes a butterfly and a cockroach to be classified as insects.

✓ **They have three main body parts, head abdomen and thorax**

✓ **They have three pairs of legs**

20. Suggest any one problem of early pregnancy to a school girl below 18 years.

✓ **lead to drop out of school**

✓ **girls may die while giving birth**

✓ **girl are likely to abort because they are not prepared for pregnancy**

21. How can the school health committee tell whether a child is already immunized against Tuberculosis without referring to the Child- Health Card?

By checking for a scar on the right hand

22. Mention any one reason for thinning crops like cotton.

✓ **For easy weeding**

- ✓ Giving plants enough space
- ✓ Reducing competition for light

23. Why is a clay soil able to retain water much longer than the other types of soil?

Clay soil has small particles which do not easily lose water

24. What force enables a match-stick to light when it is struck at the side of its box?

Friction force

25. Give the difference between heat and temperature.

Heat is a form of energy that increases the temperature of the body; the temperature is the degree of hotness or coldness of an object.

25. Give any one way in which bees benefit from plants.

Bees obtain nectar and pollen grain from the plant

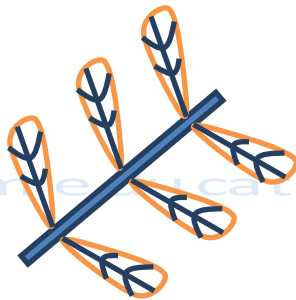
27. How is the method of propagation of a sweet potato different from that of an Irish potato?

Sweet potatoes are propagated by stem cutting whereas Irish potatoes by stem tuber

28. How does the breathing of an adult frog differ from of a tadpole?

Adult frog breath by lungs whereas tadpole use gills

29. Draw a compound leaf in the space provided below.



30. What is the importance of immunizing a pregnant woman against Tetanus?

It prevents pregnant mothers and the child from getting tetanus after child delivery.

The diagram below show a garden tool

Use it to answer questions 31 and 32



31. Name this garden tool.

Garden fork

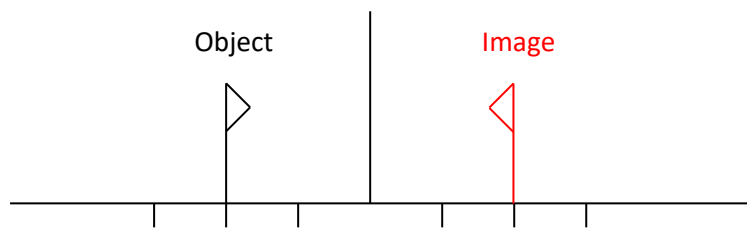
32. Give any one use of the tool to the farmer.

For removing rubbish from the garden, For spreading mulch

33. Give any one reason why doctors prescribe drugs for patients.

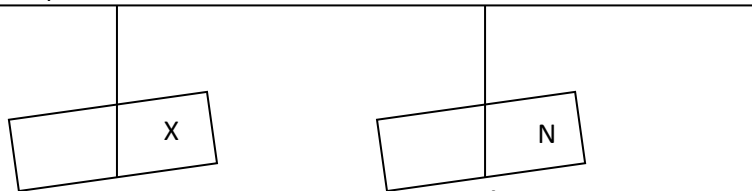
- ✓ To give correct dosage
- ✓ To give the right drug for the disease

34. The diagram below shows an object 2 metres away from the mirror.



NB: the image should have the same size as the object at the same distance.

Two magnets A and B were suspended as shown in the diagram below
Use it to answer question 35.



35. If the pole marked B of magnet A is the north pole, what is the pole marked X on magnet B?

North pole

36. A cow and a bat are classified as mammals. To which class do the tortoises and lizard belong?

Reptile

The diagram below shows a simple lever system. Use it to answer question 37, 38 and 39.



37. Show on the diagram, with an arrow, the direction of movement of the effort at P as load is being lifted.

38. At which of the two points D and P shown on the diagram will less effort be used to lift the load?

At P

39. Give a reason for your answer in 38 above.

It is far from the pivot.

40. Why does 1 kg of iron have less volume than 1 kg cotton wool?

Iron is denser than cotton wool

SECTION B

41. Give any four ways in which plants depend on each other.

(i) tall plants provide shade for the others

(ii) trees provide support for climbing plants

(iii) Legumes fix nitrogen for others

(iv) plants produce oxygen for each other respiration

42.(a) What is the use of the hairs found in the nose of a human being?

Trap dust from air breathed in so that it does not enter the lungs

(b) Name any one disease that attacks the respiratory system.

Pneumonia, Cough, Lung cancer, Bronchitis, Tuberculosis

(c) What happens to the diaphragm when we breathe

- a) in? **Contract and flattens**
- b) out? **Relaxes and become dome shaped**

43.(a) What are communicable diseases?

Diseases that can be got from another person such as malaria

(b) Give any two examples of communicable diseases.

Malaria, Flu, Cough, Scabies, small pox

(c) State any one practice in a community that would help in the control of communicable diseases.

Proper sanitation, Proper disposal of wastes, Avoid sharing clothes

44. (a) Give any two ways in which bacteria are useful to human beings.

Decompose wastes, Fermentation of alcohol, Fix nitrogen in the soil

(b) Give any two ways in which bacteria are dangerous to human beings.

- ✓ **Rot food**
- ✓ **Cause diseases such as cholera**

45. Give any two ways of controlling the spread of the following diseases without using drugs

(a) AIDS

(i) being faithful to the partner

(ii) abstinence

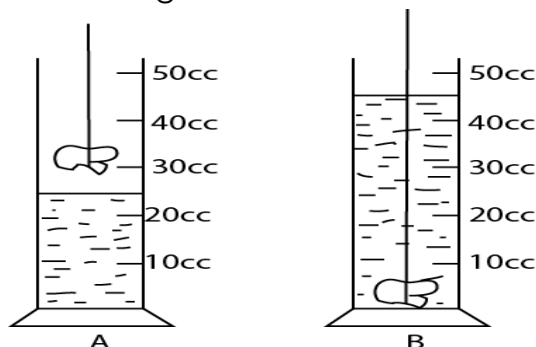
(ii) using condoms during sexual intercourse

(b) Malaria

(i) Sleeping in mosquito insecticide treated nets

(ii) draining stagnant water

46. The diagram below shows a stone being put into a measuring cylinder A containing water. The level of water rose to that shown in cylinder



Use the information to answer the questions that follow.

(a) Work out the volume of the stone.

Volume of stone = $45 - 25 = 20\text{cc}$

(b) If the mass of the stone is 60g, calculate its density.

Density =

47. (a) Give any three characteristics of living things

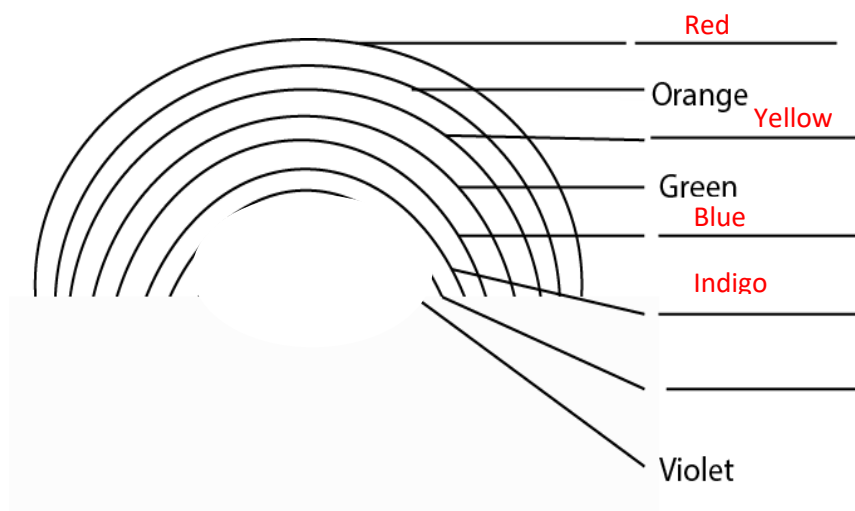
they grow, reproduce, respond to the stimulus, feed, respire, excrete, move

(b) How are plants different from animals in the way they get their food?

Plants make their own food, while animals feed on ready manufactured food by the plants

48. The diagram below the even colors of a rainbow

Completer the missing bands in the spaces provided in the diagram below



49. Bbosa kept one goat and one rabbit in different houses. He used to put different types of food in their houses. He recorded the number of times they ate each type of food. The following was his daily record:

Animal	Number of times each food was eaten					
	Sweet potato leaves	Cassava leaves	Sorghum leaves	Grass	Maize leaves	Banana leaves
Goat	3	1	0	3	2	4
Rabbit	4	2	1	2	3	2

(a) What was the most favorable food for the:

(i) goat? **banana leaves**

(ii) rabbit? **sweet potato leaves**

(b) What was the least favorable food for the rabbit?

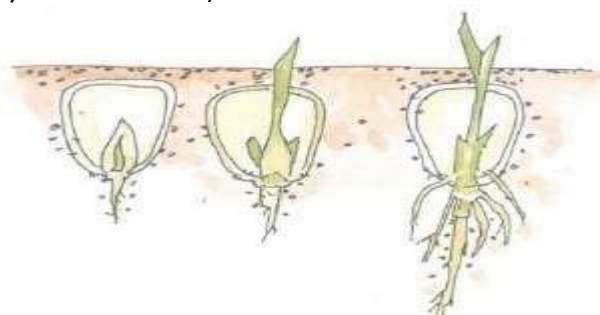
Sorghum leaves

(c) If Bbosa were to use only one type of food, which one would be the most favorable for both the goat and the rabbit?

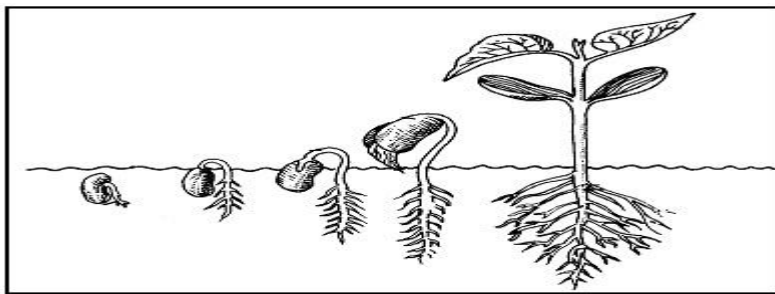
Sweet potato leaves

50. In the space provided below, draw a diagram to show the germination of :

(a) a monocotyledonous seed.



(b) a dicotyledonous seed



(c) What is the importance of a cotyledon in a seed?

Store food to be used during germination

(d) In which way is a seed important to a plant?

It grows into another plants

51. (a) What does blood move from the heart to the lungs before it moves round the body?

Blood goes to the lungs to acquire oxygen and carbon dioxide is removed

(b) Give ant one function of each of the following

(i) White blood cells

Fight disease causing germs

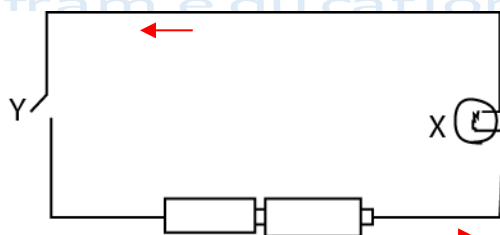
(ii) Red blood cells

Transport oxygen in blood

(ii) Platelets

Used for blood clotting

52. The diagram below is of an electric circuit. Use it to answer the question that follow



(a) Name the parts labeled **Y** and **X** in the diagram

(i) **Y**: switch

(ii) **X**: bulb

(b) Apart from light give any one other form of energy produced by the part labeled **X** when **Y** is closed.

Heat energy

(c) Show with the help of arrows the flows of current in the above diagram.

53. Health Committee members in your school visited an old man`s home and found out that home did not have the main requirement for proper sanitation. Suggest any four activities that should carry out to ensure proper sanitation in the old man`s home.

- ✓ **Mop the house**
- ✓ **Wash plate**
- ✓ **Sweep around the house**
- ✓ **Boil drinking water**

- ✓ **Dig a pit latrine 30m from the house**
- ✓ **Iron the clothes**

54. Give any two ways in which an umbilical cord is important to a baby in the womb.

- ✓ **transport food and oxygen to the fetus**
- ✓ **transports waste materials from the fetus**
- ✓ **Connects a fetus to the mother**

(b) Suggest any two things a pregnant woman must do to promote the health of her baby in the womb.

- ✓ **Good rest**
- ✓ **Eat balanced diet**
- ✓ **Go for antenatal care**
- ✓ **Exercise regularly**

55. Explain how to prepare Oral Rehydration Solution (ORS).

- a. wash your hands clean**
- b. prepare a clean dry container about 2l**
- c. add 1l (two 1/2l cups) of cold boiled water**
- d. add a sachet of ORS and mix thoroughly.**
- e. Use it within 24hrs**

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PLE INTEGRATED SCIENCE 2004

SECTION A

1. Air a mixture of gases. Which of the of gases forms the greatest percentage of air in the atmosphere?

Sandy soil

2. Give any one characteristic which is common to all vertebrates

They have endo skeleton, They have a back bone

3. What first aid would you give a person who is suffering from diarrhea?

Give oral rehydration salt solution to replace lost water

Give fruits

4. In which process can water be changed into water vapour?

Evaporation

5. Give any one way in which ringworm is spread.

By contact with infected person, Sharing clothes with infected person

6. Give any one reason why you would choose to use solar energy stead of wood fuel as a source of energy.

Solar energy does degrade the environment, Solar energy is not exhausted

7. Give any one reason why people should cut their fingernails

Longer nails keep germs

8. Apart from having bright colours, state any other characteristic of insect – pollinated flowers.

Have strong scent

Stigma is longer than the anthers

9. Give any one reason why the burning of wood is a chemical change.

It is irreversible

A new substance (ash) is formed

10 How is the air we breathe in different from the air we breathe out?

The air we breathe in contain more oxygen and less carbon dioxide than the air we breathe out.

11. Give any one characteristic that can help you distinguish between a hen and a cock.

Hens possess small crowns while big crown

Cock possess big comb whereas hen do not

12. Mary suspended three magnets on strings near each other and observed that some ends came close but other ends moved away from each other. Why did this happen?

The ends that came together had unlike poles while those that moved away had like poles.

13. Apart from hearing, give any one other function of the human ear.

To balancing pressure in the head, For posture

14. How do animals benefit from photosynthesis?

They obtain oxygen for breathing in, They obtain food

15. Give any one way in which a P7 pupils can help in the control of polio in a community.

Sensitize people to vaccinate their children

16. Give any one way in which a Child Card is important to a school Health Committee.

It shows whether a child was immunized

It gives a healthy record

17. Suggest any one reason why people drink alcohol.

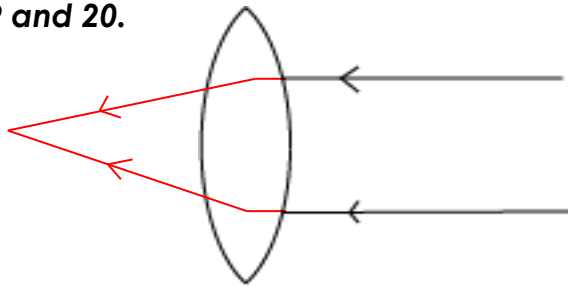
- to pass time, to forget their problem, to get sleep, to make friends, to relax

18. Peter uses a wheel barrow to carry potatoes from his garden to the market.

What is the advantage of using such a machine?

Less effort is required

The diagram below shows parallel rays striking a convex lens. study it and answer question 19 and 20.



19. Complete the diagram to show the path of the rays after passing through the lens

20. What eyes defect does this type of lens correct?

Long sightedness (hypermetropia)

21. Give the part of an insect that has the same function as the gills of a fish.

Spiracles

22. Apart from the animal kingdom, which other of organisms makes up living things?

Plants, fungi, unicellular organism

23. How can a poultry farmer prevent hens from eating their own eggs?

By debeaking, Providing enough space

Giving them food on time, Providing dark laying places

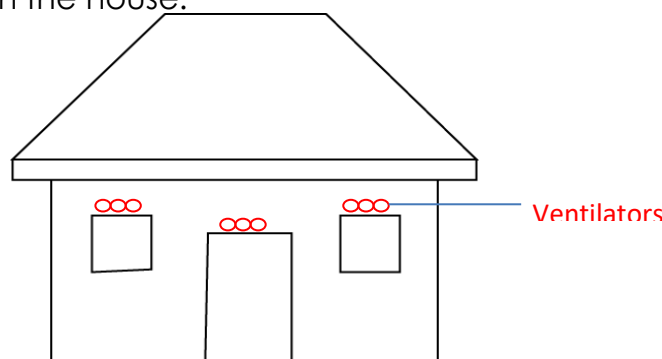
24. Which property of air enables one to drink water from a bottle using a straw?

Air exert pressure

25. In which way do bacteria help in soil formation?

Cause decay forming humus

26. Indicate on the diagram below the missing part that would improve the movement of air in the house.



27. In which way is a pool of water near a home likely to be a source of malaria to the people in that home?

Provide breeding places for mosquitoes

28. How does a bat differ from all the other mammals?

A bat flies

29. Apart from contracting sexually transmitted diseases, why would you advise a girl has started menstruating to abstain from sex?

They may get pregnancy and drop out of school

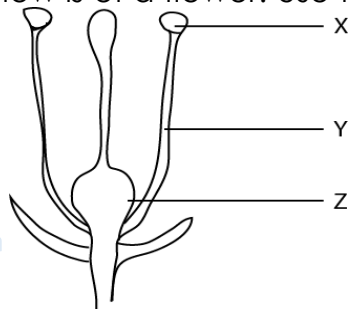
30. Draw an example of a foot of a swimming bird in the space provided below.



31 Why is a splint necessary when giving First Aid to someone with broken limb?

To minimize movement of broken bones, To reduce further injury

The diagram below is of a flower. Use it to answer question 32 to 34.



32. Name the part labeled X

Anther head

33. What is the use of the part labelled Y to the flower?

To hold the anther head

34. What does the part labeled Z become after fertilization?

Fruit

35. Give any one reason why it is important to weed crops.

Remove competition of weeds with crop, To reduce spread of diseases

To increase penetration of light

36. If a person enters a room and begin smoking, how does that habit affect the health of the people in the room?

They become passive smoker and can suffer from lung disease

37. In which part of the human body are the red blood cells made?

Red bone marrow

38. What process will you use to recover salt which has dissolved in water?

Evaporation

39. Which instrument is used to measure the temperature of human body?

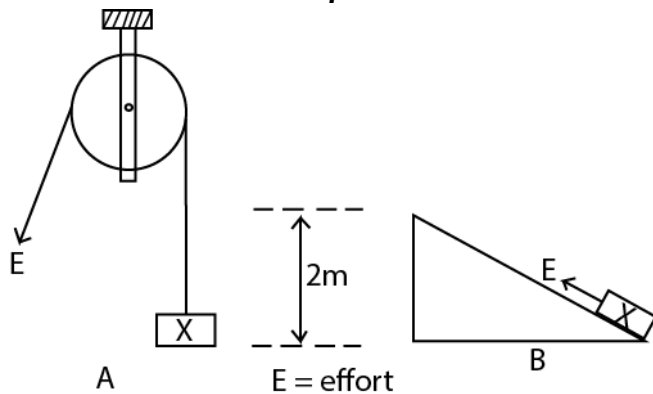
Thermometer

40. What first aid would you give to a child who has drunk paraffin?

Give a lot of milk to dilute paraffin

SECTION B

41. The diagram bellow show two types of simple machines labelled a and b
Use it to answer the questions that follow.



(a) Name each of the machines shown in the diagram

- (i) **A: single fixed pulley** (ii) **B: inclined plane**

(b) Which of the two machines would you choose to use to lift the load X to a height of two metres?

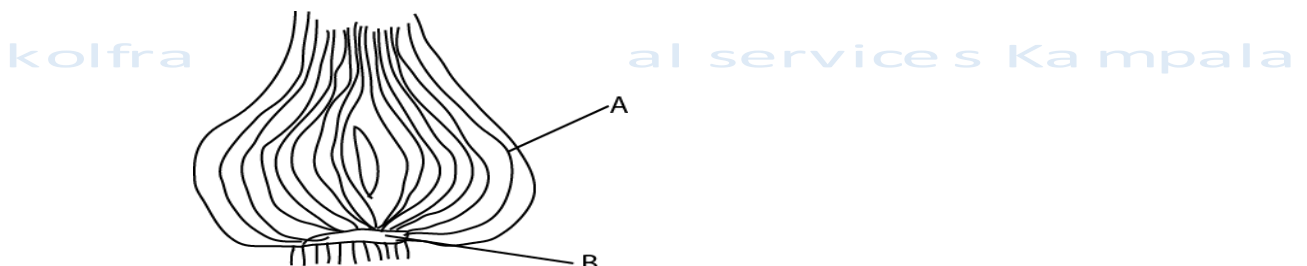
Pulley

(c) Give a reason for your choice of machine in (b) above.

Uses less effort

42. The diagram below shows as onions

Use it to answer the questions that follow



l) Name the part labelled **B. Stem**

(b) What is the function of the part labelled **A**?

Stores food, Protect the bud

(c) what types of root system does this plant have?

Adventitious root (adventitious root are those that develop from stem)

(d) How is this plant propagated?

By planting the bulb ,By seeds

43. The two lists a and b below ,show the diagram and the animals they affect
 .match the items in list **A** with those in list **B** correctly by completing the table
 below.

List A

New castle
 African swine fever
 Rabies
 Rinderpest

List B

cattle
 dogs
 pigs
 fowls

(a) New castle	fowls
(b) African swine fever	pigs
(c) Rabies	dogs
(d) Rinderpest	cow

44. (a) Why should water not be used to put out a fire caused by petrol?

Petrol floats on water and continues to burn

Water contain oxygen that supports burning

(b) Suggest any two ways in which such a fire can be put out.

Using fire extinguisher. Using sand or soil. Use blanket

(c) How is a burn different from a scald?

A burn is caused by naked fire or hot object while a scald is caused by hot water

45. How does each of the following animals protect itself against its enemies?

(a) Tortoise **by hiding in its shell**

(b) Wasp **by stinging its enemy**

(c) Millipede **it coils its body**

(d) Chameleon: **by changing color to match with environment**

46. Give any four main causes of motor accidents in Uganda

(a) driving when drunk (b) over speeding (c) ignoring road signs (d) animal crossing (e) bad roads

47. (a) What advice would you give to a person wishing to construct a pit latrine at his home?

(i) it should be 10m from the main house

(ii) should not be near a water source

(iii) should be built with easily washable material

(iv) should have a vent pipe

(b) Give any one characteristic of a Ventilated Improved Pit Latrine

(i) has a vent pipe (ii) it remains open

(c) Give any one reason why people should use latrines /toilets properly.

To prevent spread of diseases like dysentery and cholera

48. Mention any one reason why copper wires are commonly used to distribute electricity from one point to another.

Copper is a good conductor of electricity

(b) Why do people who work on electric wires wear rubber gloves?

To prevent being electrocuted

(c) Give any one use of each of the following:

(i) a switch **breaks the circuit and complete the circuit**

(ii) a fuse **breaks the circuit when there is short circuit**

49. (a) Which bone joint the pelvis and the tibia?

Femur

(b) Apart from movement, give any other two functions of the human skeleton.

(i) protects delicate organs

(ii) provide shape for smooth movement

(iii) store mineral (iv) manufacture blood cells

(c) What is the function of tendons in a human body?

A tendon joins a muscle to a bone

50. (a) In which way does the cutting of trees (deforestation) cause soil erosion?

This leaves land bare and exposed to agents of soil erosion such as running water, wind and animals

(b) Suggest any three methods of farming which can prevent soil erosion.

(i) terracing (ii) mulching (iii) strip cropping

51. (a) Give any one danger to a person who gets used to taking drug of dependency.

(i) leads to brain damage

(ii) leads to self-neglect

(iii) leads to neglect of jobs

(iv) leads to death

(b) Suggest any three reasons why it is not advisable to take drugs bought from local shops.

(i) you may take wrong dose (ii) you may take wrong drug

(iii) may take expired drugs (iv) may take contaminated drug

52 (a) What do you understand by 'dual purpose' cattle?

Dual-purpose cattle are cattle kept for milk and beef

(b) Give any two common local breeds of cattle kept in Uganda

(i) Zebu cattle (ii) long horned cattle

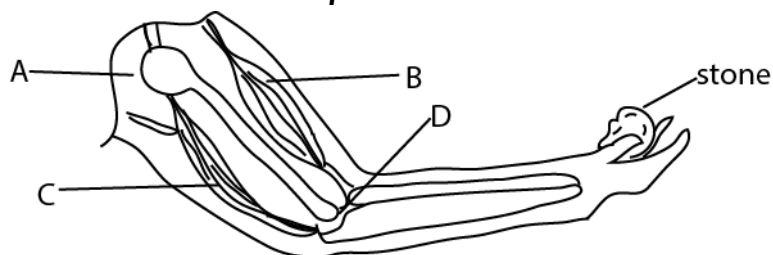
(c) Suggest any one reason why cattle keepers practice cross-breeding.

To improve on milk production

To improve on beef production

53. The diagram below shows the human arm holding a stone

Use it to answer the question that follow



(a) Which muscle acts as the effort in order to lift the stone?

Muscle B

(b) What kind of movement is possible at each of the following joint?

(i) joint **A**: Move in all direction (ball and socket joint)

(ii) joint **D**: move in one plane (hinge joint)

(c) Which class of lever is represented by the diagram above?

Third class lever

54. Use one sentence to explain the meaning of each of the following:

(a) reflection of light

Is the bouncing back of light.

(b) conduction of heat

Is a process by which heat move from one part of a solid to another

(c) transpiration **This is the loss of water from a plant leaves**

(d) condensation **Is a process by which vapour turns to a liquid**

55. The table below shows food stuffs prepared in different families

Study it and answer questions that follow

Family A	Family B	Family C	Family D
Matooke Yams Meat beans	Cassava Beans Posho yams	Potatoes Posho Cassava yams	Millet Fish Goat milk Mangoes

(a) Which family will be able to have vitamin **C? D**

(b) Which family has proteins but lacks fats? **B**

(c) What food nutrients are lacking in family A?

Vitamin C

(d) Which family has almost a balanced diet?

PLE INTEGRATED SCIENCE 2003

SECTION A

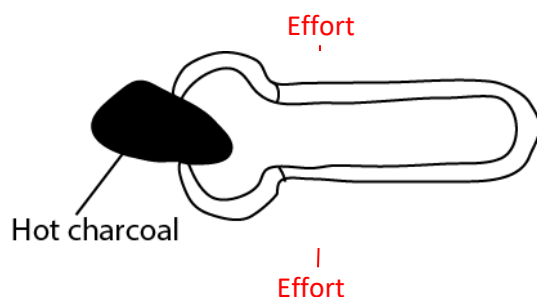
1. What kind of change take place when ice melts to form water?

Physical change (because it is reversible)

2. Give any one reason why farmers prefer keeping cross-breed cattle other than the exotic ones.

To increase resistance to disease

The diagram below is of a simple machine. use it to answer questions 3 and 4



3. Indicate with letter E the position of the effort.

4. What class of lever is this machine?

Third class level

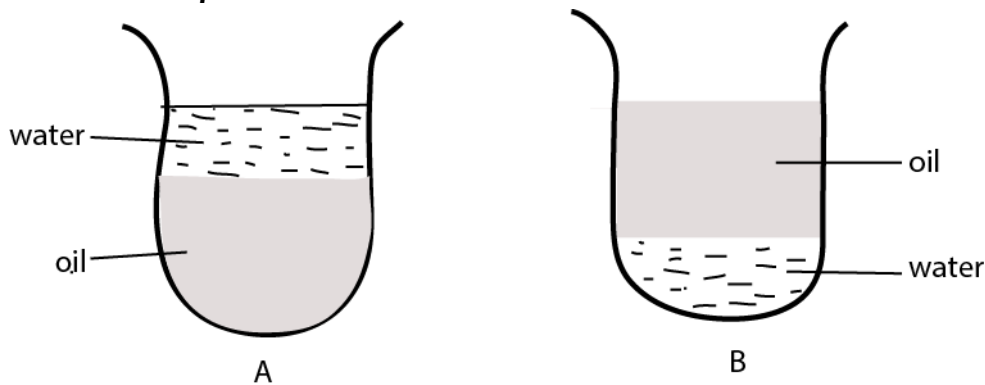
5. What is the importance of leaves to a plant?

- ✓ For photosynthesis
- ✓ For transpiration
- ✓ For vegetative reproduction
- ✓ Some have tendrils for support
- ✓ Leaves have stomata for gaseous exchange

6. In which way is the breathing of crocodile different from that of a fish?

Crocodile breath through lungs while fish breathe through gills

7. The same amount of oil and water were poured into the container shown in A below beginning with oil and then water. When the container was checked after sometime, oil was found on top of the water as shown in B. Use the diagram to answer the question that follow:



Why did oil come on top of the water?

Oil is less dense than water or water is denser than oil

8. Why is it a bad habit to cut finger nails using teeth?

A person may transmit germs to the mouth

9. Give any one problem that may be faced by a school girl who becomes pregnant.

- ✓ Pregnant girls are forced out of school
- ✓ Pregnant girl may experience obstructed labour
- ✓ The girls may not be able to look after her baby after giving birth due to lack of money.
- ✓ She may be tempted to abort

10. Give any one reason why a latrine should be 10 metres away from the living house.

To prevent flies from carrying germs to the house

11. Give any one practice in a home that would help in the control of malaria

- ✓ sleeping in insecticide treated nets
- ✓ draining stagnant water
- ✓ slashing around the house
- ✓ spraying with insecticide

12 Apart from teeth, which other weapon does a dog use for protection?

Sharp claws/ nail

13. What is the duty of the queen bee in a hive?

To lay eggs

15. How are animals different from plants in the way they get food?

Plants make their own food whereas animals feed on food made by the plant

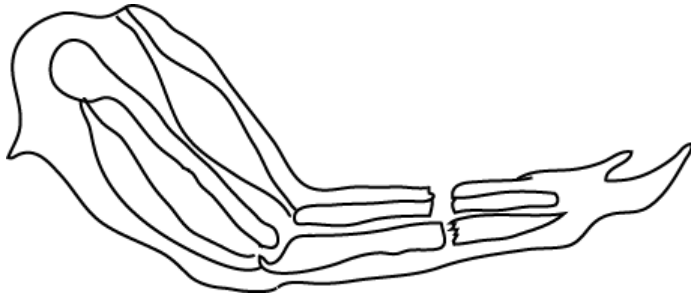
16. Give any one reason why a patient should take a drug only when it is prescribed by a medical person.

- ✓ to prevent taking a wrong drug
- ✓ to prevent taking wrong doses
- ✓ to prevent taking overdose
- ✓ to prevent taking drugs at wrong time

17. State any one agent responsible for dispersing mango seeds

Animals, bird

18. In the space below, draw an example of a compound fracture

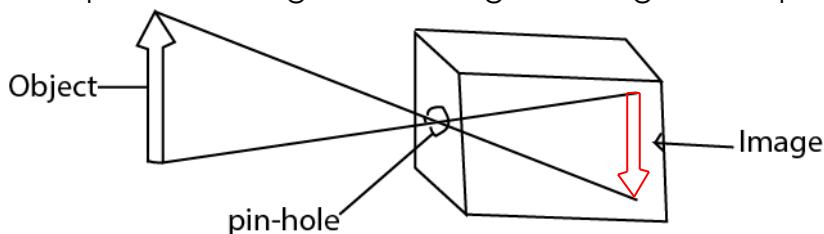


NB: compound fracture has more than one bone broken and the tissue torn

19. Whenever Bbosa runs on a sunny day, he sweats. What is the importance of sweating to his body?

Evaporation of sweat cools the body

20. The below shows a pin-hole camera with an object. The image been left out. Complete the diagram drawing the image in the pin-hole camera.



21. Which organ in your body helps you to find out whether something is sweet or bitter?

Tongue

22. Give the general name of blood vessels which carry blood away from the heart to various parts of the body.

Arteries

23. Give any one use of cow-dung to farmers.

For making manure - for making biogas

24. Give any one reason why it is not advisable to breathe through the mouth.

You may take germs because the air is not filtered by air and mucus in the nose

25. Why does blood go to the kidneys during circulation?

To remove metabolic wastes and excess water

26. At what time of the day are shadows shortest?

At noon or midday

27. Why do tyres of cars wear out more quickly on tarmac roads than marram roads?

Tarmac roads have high friction than marram roads

28. Give any one other system of poultry farming, apart from a free –range system.

Deep litter system, Fold pen system, Battery system

29. In which class of animals do you put a tortoise and as lizard?

Reptiles

30. Our school pit latrine smells a lot and is always full of flies. What measures can we take to prevent this situation?

- ✓ Put on a vent pipe
- ✓ Smoking it.
- ✓ Disinfect it

Susan shouted loudly in a big house ,as she shouted ,she heard another similar sound.

Answer the questions 31 and 32 using this information.

31. Give the name of the similar sound Susan heard after shouting.

Echo

32. How was the sound you have named in question 31 formed?

Due to reflection of sound waves

33. Give any one factor to be considered when choosing a site to build a home, apart from security, raised nearness to the main road and availability of water.

- ✓ Availability of money
- ✓ Availability of building materials

34. Give any one state of matter.

Solid, liquid, gas

35. Why is transpiration important in green plants

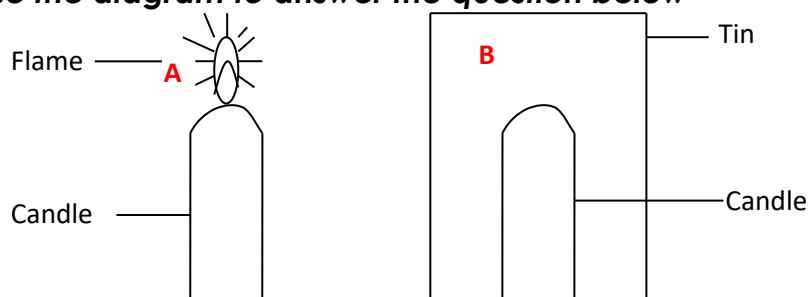
- ✓ To lose excess water
- ✓ To cool the plant

36. State any one effect of air pollution on people.

Lead to formation of acid rain, Leads to suffocation, Leads to heart attack

37. In the diagram below a candle was burning as shown in A then it was covered with a tin as shown in B. after sometimes the candle stopped burning.

Use the diagram to answer the question below



Why did the candle flame in B go off after sometime?

Because oxygen is used up

38. Give any one function of a spinal cord in human body.

Connects peripheral nervous system with the brain

Conducts impulse between the brain and rest of body

39. What type of energy do you have when you are seated in the class?

Potential energy

40. Suggest one reason why an individual should promote personal hygiene?

- prevent spread of disease. - to get rid of diseases - to look smart

SECTION B

41. (a) What is a crop pest?

It is a living organism that destroys a crops

(b) Give any one example of a crop pest.

Bean weevils, Cotton stain burg, Rats, squeal, termite, grasshoppers

(c) Apart from spraying with chemical, give other two ways of controlling crop pests.

- ✓ Use other living things that eat or damage pests
- ✓ Crop rotation to break the pest's life cycles
- ✓ Use of scarecrow
- ✓ Burning infected plants
- ✓ Planting resistant crops

42.(a) Give any one habit that may lead a person to catch AIDS

Prostitution, Rape, Drug abuse, Polygamy, Having sex outside marriage

(b) Suggest the best way of controlling the spread of AIDS.

- ✓ Abstinence
- ✓ Being faithful to one spouse, Use of a condom
- ✓ Discouraging infected person(s) from having children
- ✓ Not sharing sharp objects

(c) Give any two sign that shows that an individual is suffering from AIDS.

- ✓ Loss of weight, Constant fever, Persistent cough, Oral thrust, Constant extreme tiredness

43. (a) What is the use of a clinical thermometer?

- ✓ To measure human body temperature

(b) Give any one reason why there is a bend in the tube of a clinical thermometers.

- ✓ To prevent back flow of mercury

(c) Which liquid is mainly used in thermometers?

- ✓ Mercury

(d) Why is the liquid you have named used instead of other liquids?

- ✓ It expands uniformly
- ✓ Does not wet glass
- ✓ It is opaque
- ✓ Does not evaporate

44. (a) Name any one disease that is immunized against at birth.

- ✓ Polio, tuberculosis

(b) Which site on the body is measles immunization usually given?

- ✓ Left upper arm

(c) Why are pregnant women immunized against tetanus?

- ✓ To protect the child and mother against tetanus at birth

(d) How does tetanus get into our bodies?

- ✓ Through rotting wound
- ✓ Through cuts

45. (a) Give one process in plants in which:

(i) oxygen is used,

- ✓ Respiration

- ✓ Germination

(ii) carbon dioxide is used.

- ✓ Photosynthesis

(b) What useful by-product in (a)(ii) above?

Starch, oxygen

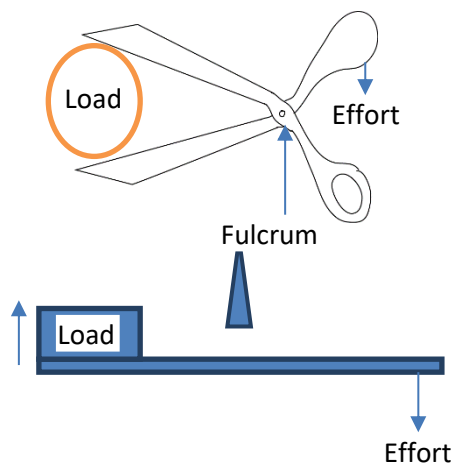
(c) Give any other natural process that uses oxygen

Respiration,

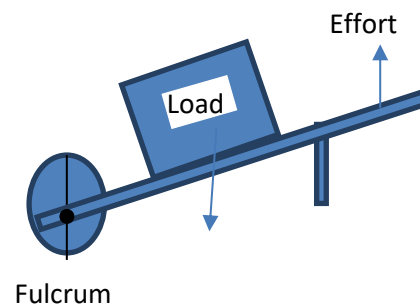
Rusting , combustion

46. show the difference between the first-class lever and the second –class lever by drawing and labeling the two diagrams.

(a) First –class lever



(b) Second –class lever



47. In which one way is the function of the skin similar to that of lungs?

Both are excretory organ

(b) Give an example of a practice which will prevent the skin to function properly.

Poor feeding, Not bathing regularly , Using strong chemicals

(c) Suggest any two ways in which the proper functioning of the skins can be promoted.

- (i) Bathing regularly
- (ii) Eating food with vitamins
- (iii) Balanced diet
- (iv) Regular exercise

48 (a) Give one two reasons for preserving meat

- ✓ Keep it for future use
- ✓ To prevent contamination with germ
- ✓ To prevent development of bad smell

(b) Give any traditional way of preserving fish in Uganda

Smoking, salting

(c) Give one modern way of preserving meat.

Refrigeration, Tinning

49. You are running home with your friend after school and one of your friends accidentally falls down and his thigh bone breaks

(a) what do we call the injury he got.

Fracture

(b) Give two things you will do to give him First Aid

- ✓ Applying a splint around the broken bone area
- ✓ Prevent movements, Stop bleeding

(c) What would you prepare to enable you carry him properly

Stretcher

50. (a) What type of electricity is generated at Jinja?

Hydroelectricity

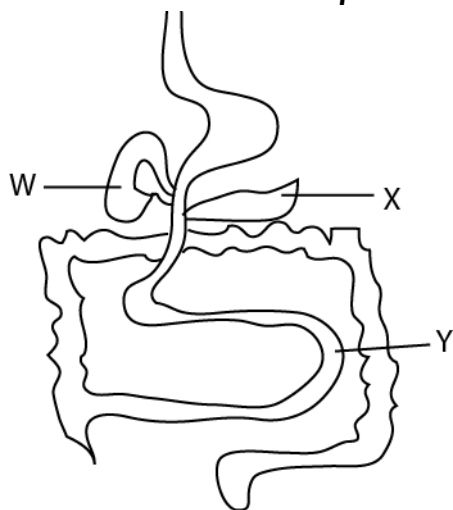
(b) What is the difference between solar and thermal electricity?

Solar electricity is obtained from sunlight whereas thermal energy is obtained by burning fuel.

(c) Give any two advantages of solar electricity over the thermal electricity.

- (i) Minimize destruction of forests
- (ii) Does not produce poisonous gases
- (iii) It is cheap

51. The diagram below shows the alimentary canal of the human being. Use it to answer the questions that follow.



(a) Name the part marked: **W: liver** **X: pancreas**

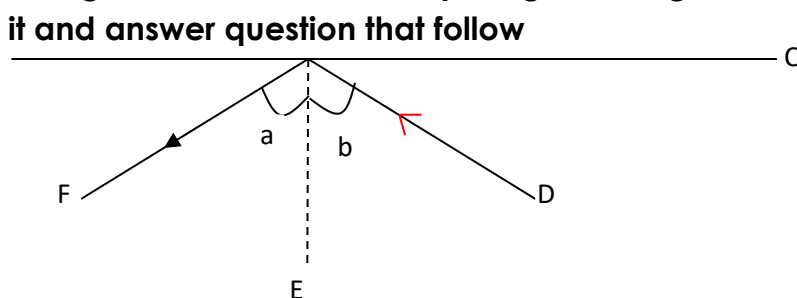
(b) State any one process that takes place labelled Y

Absorption of digested food

(c) Give one function of the organ labelled X

Produces pancreatic juice that contains enzymes for digestion of food

52. The diagram below shows a ray of light striking the mirror. Study it and answer the questions that follow.



(a) Name the part marked

C: mirror

(b) Put an arrow on line D to show the direction of the ray of light

(c) If angle $b = 40^\circ$, what is the size of angle **a**?

$$a = 40^\circ$$

(d) Give a reason for your answer in (c) above.

Because angle of incidence is equal to angle of reflection

53.(a) Which vector spreads dysentery?

Housefly

(b) Give any two ways of controlling dysentery in our homes

- ✓ Proper hygiene
- ✓ proper disposal of wastes
- ✓ boiling drinking water
- ✓ eat hot food

(c) Why should a person suffering from dysentery be given oral Rehydration salts(ORS)?

To replace lost water and salts

54. Study the table below and answer the question that follow

LIST A	LIST B
Tilapia	Rat
Frog	Goat
Crocodile	Lion
Dove	whale

(a) What is the similarity in the way animals in list A reproduce?

They all lay eggs

(b) To which class of animals do those in list B belong?

mammals

(c) In which way is tilapia in list A similar to a whale in list B ?

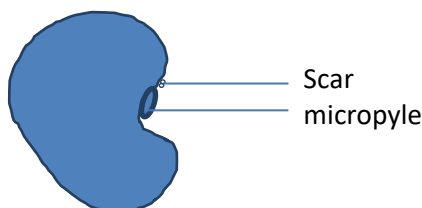
Tilapia and bird are swimming animals

(d) What is common about the animals in list A and list B?

They are vertebrates

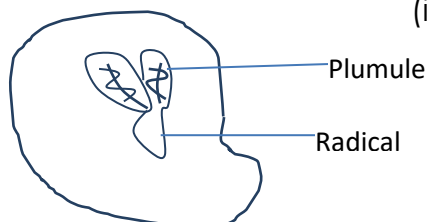
55. (a) Draw bean seed and show:

- (i) a scar
- (ii) a micropyle.



(b) Draw a spilt bean seed and show: (i) a plumule

(ii) a radical



PLE INTEGRATED SCIENCE 2002

SECTION A

1. Why does a bedbug produce a very bad smell when it is touched?

To protect itself against enemies

2. Give any one reason why a child's diet should more proteins than that of an adult.

To enable them grow well, To prevent development of kwashiorkor

3. Give any one way in which flowers are important to a plant.

Flowers are sexual reproductive parts of the plant

4. Give one sign which is common between the people suffering from tuberculosis (TB) and those from AIDS.

- constant fever, chronical cough, loss of weight

5. Give any one example of an animals which an amphibian.

Frog, Newt, Salamander

6. Give any one characteristic which is common to all insects.

- Have three pairs of legs - they have three main body parts - the thorax is subdivided into three main body parts

7. Why does sugar disappear when it is mixed with water?

Sugar is soluble in water

8. Which property of air demonstrated when air is pumped into a ball, and the ball becomes bigger?

Air exert pressure, Air occupy volume

9. How is the absence of iodine harmful to our health?

It leads to goiter

10. Explain why sandy soil cannot retain water like clay soil.

Sandy soil has bigger particles than clay soil

Sandy soil has bigger air space than clay soil

11. What is the importance of red blood cells in the body?

Transport oxygen in blood around the body

12. Give any one characteristic of an image formed in a pin hole camera.

It is real ,It is inverted

13. Which of the following animals: fish, frog, lizard, rat and snail is warm blooded?

Rat

14. Why is proper disposal of refuse important in a home?

Prevents spread of disease

15. The diagram below are of three types of metals. Study them and answer the question that follows

A before heating

	M
	C
	K

B after heating

	M
	C
	K

Explain the cause of the difference in length after they have been heated.

K has a higher expansivity than C than metal M

16. in the space provide, draw a convex lens



17. Why do you think that seeds of an orange are likely to be dispersed by a person?

It found in a juicy sweet fruit (orange)

18. When water is heated it changes into water vapour. What is this process called?

Evaporation

19. Apart from using more energy, name one other disadvantage of friction.

Wears out surfaces, Creates unnecessary heat

20. What is the importance of bees to plant?

Bees pollinate flowers

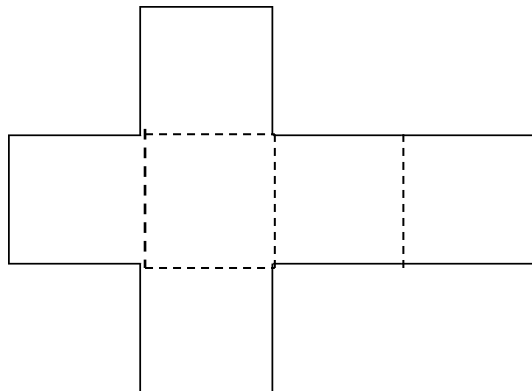
21. Explain the difference between temperature and heat.

Temperature is the degree of hotness or coldness of an object while heat is a form of energy that increases temperature.

22. What is the disadvantage of having anthills near gardens?

Contain ants that destroy crops

23. The diagram below shows a certain shape of an object, which has been dismantled.



Study it and answer the question that follows.

What shape can you get that diagram if folded along dotted lines?

A cube

24. What First Aid would you give to a person whose finger has been burnt by fire?

Put the burnt finger in cold water

25. Why is it possible to control the spread of cattle diseases in a paddock system?

The cattle locked are not exposed to infected ones

Infected cattle can be separated

26. Name any cereal which is used as food.

Maize, rice, sorghum, wheat oats, barley

27. Mukasa has a pool of water in this compound and he has a problem of mosquitoes. What advice would you give him to reduce the number of mosquitoes without draining the pool?

Drain it, Add small fish to eat mosquito larvae

28. Why is it important to bathe with soap?

It removes dirt, It kills germs

29. In the space provide below, draw a compound leaf.



30. Vultures, kites and crows were found feeding on a dead cow. What group of birds are these?

Scavengers

31. Give any one special characteristics of the air we breathe out.

Contains high percentage of carbon dioxide, It is warm

Contain high percentage of moisture

32. Give anyone way in which a human skull is important.

It protects the brain

33. Give an example of a hinge joint in a human body.

Elbow joint, Knee joint

34. Give any one sign of dehydrated person.

Pale skin, Sunken eyes, Low pulse, Dry lips

35. Give an example of a plant which grows from stem cuttings.

Cassava, sugar cane, sweet potatoes

36. Explain what ante-natal care is.

It is the care given to pregnant woman to ensure that she and the fetus are ok until delivery

37. Suggest any one way you would help one to avoid drug dependency.

To avoid groups of drug addicts

To join groups that discourage use of drugs

38. Give any one reason why parents should take their children for immunization.

To protect them against the killer diseases such as measles, TB, polio

39. On a hot day, a boy ran 1500 metres but there was not a lot of sweat on his face. Immediately he came under the shade of a tree, the whole face was full of sweat. Explain the reason for the sweating under the shade.

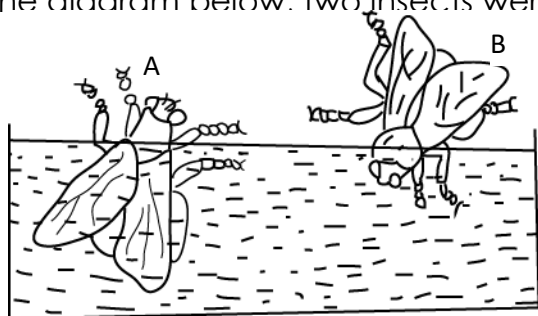
Because under the sun sweat evaporates whereas in the shade sweat condenses into a liquid

40. Why are windows put at a lower than the ventilators?

To allow in fresh cool air which is denser than the warm air in the house.

SECTION B

41. In the diagram below, two insects were placed in water as shown.



(a) (i) which insect died?

A

(ii) Give a reason for your answer in (a) (i) above.

The spiracles are blocked and so it cannot breathe.

(b) In which way are the insects shown in the diagram harmful to man?

Spreads diseases such as trachoma, dysentery to human

(c) Give any other insect that causes the harm similar to that in (b) above.

Mosquitoes, tsetse fly, cockroach

42. (a) After it has rained, earthworm come out of their holes. Why do they come out?

Air holes in the soil are filled with water and therefore air the earthworm to breathe

(b) Give two reasons why an earthworm is very important to a farmer.

Earthworm aerate the soil

When earthworm dies it rots and form humus

Earthworms are food for our poultry.

(c) Why does worm die if oil is poured on its body?

It blocks gaseous exchange over the skin

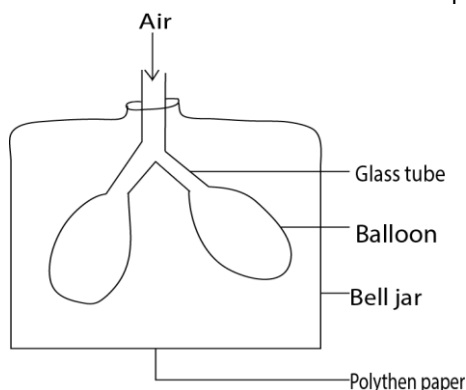
43. Give any four ways in which fish can be preserved.

(a) by smoking (b) by salting (c) by tinning (d) by refrigeration

(e) by cooking, frying (f) by sun drying

44. The diagram below shows the way in which one of the systems of the human body

Works. Use it to answer the question that follow



a) Name the system.

Respiratory system

(b) What does a balloon represent?

Lungs

(c) What does the polythene paper represent?

Diaphragm

(d) What would happen to the polythene paper if air filled the balloon?

Would burst/ expand outside

45 (a) some bacteria are useful and others are harmful. Give an example of each.

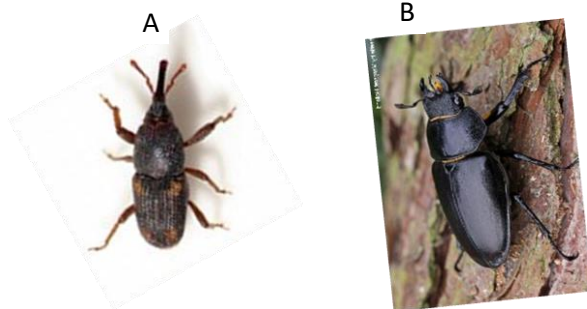
(i) Useful bacteria: **Nitrogen fixing bacteria**

(ii) Harmful bacteria: **Bacillus tuberculosis/ disease causing bacteria**

b) Give any two examples of when bacteria are useful to man

For fermentation, Digestion in ruminants, Brewing

46. The diagrams below are of pests. Use them to answer questions (a) and (b) below



a) Name the pests:

(i) A: **bean weevil**

(ii) B: **beetle**

b) What is the disadvantage of the above insects to a farmer?

They destroy crops.

Increase cost of production due to buying pesticide.

47. Match items of group A with those of group B by completing the table below

A	B
Heart	Sensory organ
Kidney	memory
Skin	carbon dioxide
Lungs	circulation
Brain	urine

Complete the table below

A	B
(i) heart	Circulation
(ii) Skin	Sensory organ
(iii) Brain	Memory
(iv) Lung	Carbon dioxide

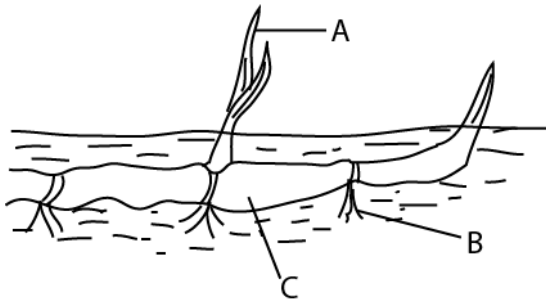
48 (a) Name materials used to measure the volume of an irregular objects

Overflow can, Measuring cylinder, water

a) How would you get the mass of an object if its density is 6g/cc and the volume is 10cc.

$$\begin{aligned}\text{Mass} &= \text{density} \times \text{volume} \\ &= 6 \times 10 \\ &= 60\text{g}\end{aligned}$$

49. The diagram below shows an underground stem.



a) State the type of underground stem shown in the diagram

Rhizome

b) Suggest the functions of the parts labelled A, B and C

✓ **leaves manufacture food for the plant**

✓ **adventitious root absorb water from the soil**

roots anchor the stem into the soils that they are not uprooted easily.

50. (a) Name two practices that lead to the destruction of wet lands.

✓ **Industrialization**

✓ **swamp reclamation for agriculture**

✓ **brick making,- damping in waste**

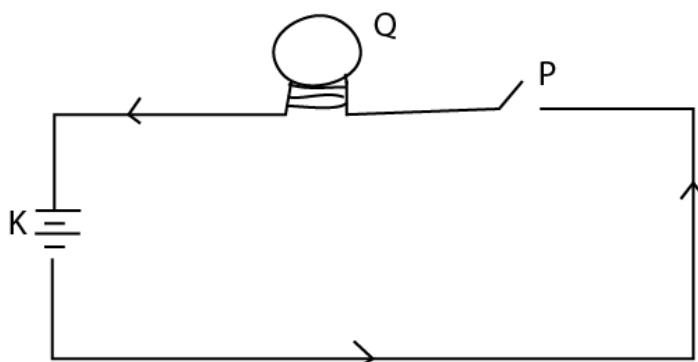
(b) What is the difference between contour ploughing and mulching?

contour ploughing is digging across the hill while mulching is covering soil with dry plant material

(c) How are the two practices in (b) similar?

- they control soil erosion

51. the diagram below shows an electric circuit. Use it to answer the questions that follow.



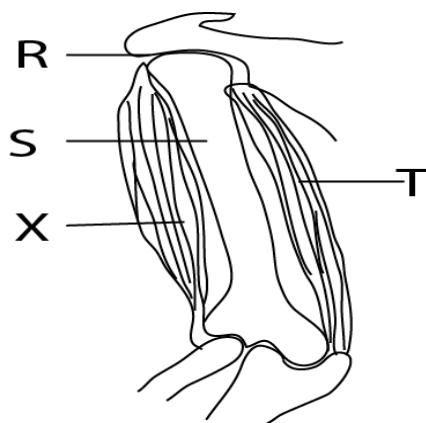
a) Name part K: **battery cells**

b) Name part P: **switch**

c) Give the type of energy that are produces at Q when P is closed.

Light energy, Heat energy

52. The diagram below shows the arm. Study it and answer the questions that follow.



a) Name the Joint labelled R:

Ball and socket joint

b) Name the bone labelled S:

Humerus

c) What happens to muscles T and X when the fore arm is raised?

T: (triceps) - relaxes X: (biceps) - contracts

53. As a pupil in a school, you are of the school health committee. What do you expect to do to make health improve in the school?

- Regular cleaning and maintaining the latrine, regular cleaning of compound

- regular checkup of hygiene ,proper disposal of water, mopping classes

54. (a) in the list of objects: rabbit bacteria, sun, pig and plant.

(i) Name a producer: **plant**

(ii) Name a primary consumer.: **rabbit**

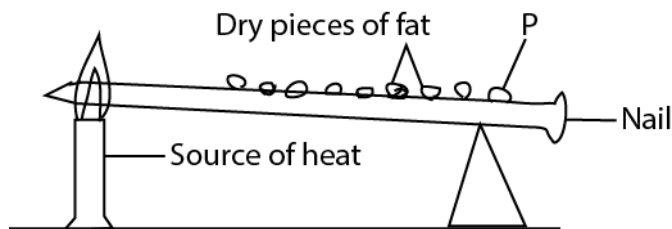
b) What is the role of bacteria from the above list?

They are decomposers

c) what is the difference between a primary consumer and a secondary consumer?

Primary consumer feed directly on plants while secondary consumer feed on primary consumers

55. The diagram below is of an experiment performed by a p& class. Study it and answer the question that follow.



(a) what is the experiment about?

Heat transfer on metals or conduction of heat

(b) What is the importance of fats pieces

To show that heat transfer through the metal

(c) What will happen to piece P after sometimes?

- It will melt after sometimes**
(d) Give a reason for your answer in (c).
Heat reaches P by conduction

PLE INTEGRATED SCIENCE 2001

Section A

1. Why is a hoe regarded as a simple machine?

It makes digging easier

2. How can you increase milk production in a dairy cow?

Gives good quality food

3. Give the function of teeth in the process of digestion.

Break food into smaller particles and increase surface area for digestion of food and easy for swallowing.

4. What disease is likely to attack children whose diet lacks proteins?

Suffers from kwashiorkor

5. How can you assist a person who has a foreign body in the ear?

Rushing a person to hospital

Use a wet cloth, through the ear to remove the foreign body.

6. The razor blade was left outside for a night in the morning it had rusted. What made a razor blade to rust?

Presence of oxygen and moisture

7. How does the life history of the cockroach differ from that of a butterfly?

A cockroach undergoes incomplete metamorphosis while a butterfly undergo complete metamorphosis.

8. Suggest one possible reason why immunization of children is emphasized in Uganda.

To protect children against the killer diseases

9. Why is dew formed at night?

Due to low temperatures

10. What can be done to lower the temperature of a person with high fever?

Using a tepid sponge or a wet sponge in lukewarm water

11. How does paraffin which is poured over stagnant water kill mosquito larva?

Blocks oxygen from water

12. Give any one use of leaves to a plant.

For transpiration

For photosynthesis

For support

Colored leaves attract pollinators to the plants

For gaseous exchange.

For vegetative reproduction

13. How do road builders increase friction on the surface of the road?

By adding sand or tarmacking

14. Give any bone activity that a teacher can do during a health parade in a school to promote health

Checking children's personal hygiene such as finger nails, teeth

15. Why does smoke go up when firewood is burning?

Because it is less dense than air.

16. which part of the blood helps in the clotting of blood?

Platelets

17. Why is mulching a good practice to as human growers?

- controls soil erosion

- retains moisture in the soil

18. Why is it necessary to brush teeth after every meal?

To remove food particles in the teeth that would attract bacterial

19. Why does a chameleon change the colour of its body?

To protect itself from enemies

20 How is the retina of human eye similar n to the firm of a camera?

It is where the image forms

21 How are seeds of a mango dispersed?

It is dispersed by animals, and birds.

22. Which method would you use to find the value of an irregular object.

Displacement method

23. How is the respiration of a tadpole similar to that of a fish?

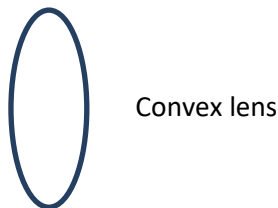
They both use gills for gaseous exchange/breathing

24. Peter water put gout fire caused by petrol but the continued Burning. suggest one thing he should have used to put off the fire.

Fire extinguisher,

By pouring sand on to the fires

25. Musa sis log –sighted. Draw the type of lens he should use to correct his eye problem.



26. Give anyone reason which shows that animals and plants depend on each other.

Animal obtain food from pants while plants obtain carbon dioxide from animals

27. Why is it difficult to control poultry disease in free-range system?

Poultry in free range system move freely and can easily be infected poultry.

28. How does a tortoise protect itself against its enemies?

By hiding in its hard shell for protection

29. Why are bacteria in rotting rubbish very useful to man?

They help to decompose rubbish.

30. Give one reason why mercury is used in thermometers instead of water.

It does not wet glass

It expands uniformly

It is opaque

Does not evaporated easily

31. Give the difference between freezing and condensation.

Freezing is a process by which a liquid turns into a solid whereas condensation is a process by which vapor or gas turns into a liquid.

32. Give the difference between the way man and insects breathe.

Man breathes through the lungs whereas the insects breathe through spiracles.

33. When it is said that Badru is anemic, what is lacking in his blood?

He is lacking iron in blood

34. State one disease that both a passive and active smoker may suffer from.

Lung cancer

Pneumonia

35. Why does blood go to the lungs before it is pumped to all parts of the body?

Blood go to the lungs to pick oxygen from the lungs

36. Find the density of an object whose mass is 10g and volume is 5cm³

Density = or 2g/cm³

37. Give one reason why a bat is a mammal not a bird.

They produce young one alive while birds lay eggs

38. Give one way in which the sun is important to plants.

Provide sunlight energy for photosynthesis

39. Give one reason why drugs should be prescribed by health worker before they are used by sick people.

To prevent taking wrong drugs

To prevent taking long doses

40. How is an echo similar to an image?

They are both produced by reflection

SECTION B

41. (a) Give any two reasons why school gardens are important

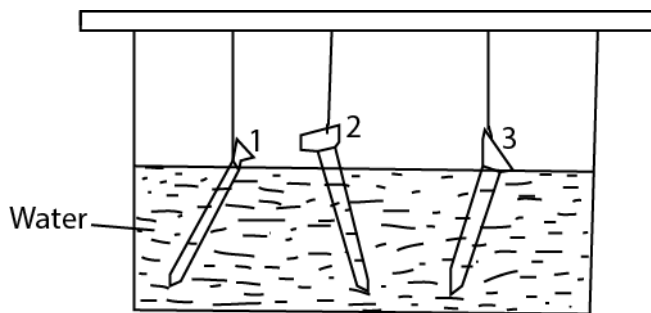
- used for demonstration purposes
- source of food for the pupils

(b) Give any two reasons why you need to keep school farm records

- to know how much food is produced
- to know how many animals are on a farm
- to guard against theft

42. Nails were placed in water as indicated below for one week .us the information to answer to answer the question that follow.

- Nail 1 was painted
- Nail 2 was not painted
- Nail 3 was greased.



(a) Which of the nails above have changed its colour overnight?

Nail 2

(b) What will grease do in nail 3 above?

Prevents water and air from reaching the nail

(c) Why are metal object painted?

To prevent it from contact with oxygen and water

(d) Which nails will remain unaffected?

Nail 1 and 3

43. (a) If you put a saucepan of water on fire, how does heat travel by convection to make the water boil?

Hot is less dense than cold water, it raises to the top and the bottom is replaced by cold water creating a continuous circular current.

(b) State three ways through which convection currents help to improve our environment.

(i) provide people with fresh air

(ii) help in formation of rain

(iii) remove carbon dioxide from a house and replaced by fresh air

(iv) help form cold air current on land during day

44. Some diseases can be treated without the use of drugs.

(a) Give an example of such a disease

Flue, Rickets, kwashiorkor

(b) How would you treat the disease you have named in (a) above?

Flu by eating fruit and drinking a lot of juice

Rickets by giving foods rich in vitamin K and calcium

Kwashiorkor by giving proteins

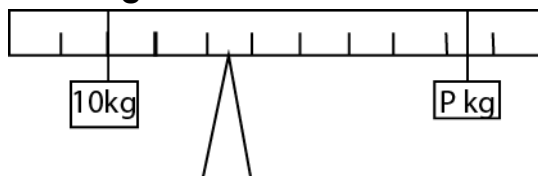
(c) What do you understand by essential drugs?

Drugs that are used to treat common diseases in a community.

(d) Give one reason why it is not advisable for two patients to share drugs presented for one person.

They do not get a full dose

The diagram below shows a lever which is balanced. Use it to answer question 45.



45. The diagram shows a lever which is balanced, calculate the weight of P.

Clockwise moment = anticlockwise moment

$$P \times 5 = 10 \times$$

$$P = 5\text{kg}$$

46. (a) In which part of the plant does photosynthesis mainly take place?

Leaves

(b) Name two raw materials which enable photosynthesis to take place

(i) carbon dioxide (ii) water

(c) Give the difference between photosynthesis and transpiration.

Photosynthesis is the process by which plants make their food using sunlight whereas transpiration is the process by which plants lose water through the stomata.

47. (a) Why is it important to feel the pulse (heart beat) of a seriously injured victim of an accident?

To determine whether the victim is alive or dead

(b) What can a small boy or girl do when his or her older sister falls into water?

Make an alarm

(c) Why is it dangerous to cause a victim who has swallowed paraffin to vomit it?

Vomiting can cause paraffin enter the lungs and causing death

Vomiting may cause dehydration

(d) Why is First Aid given?

Give a lot of milk to dilute the paraffin

48. (a) How can you tell by looking at the roots, that a plant is a legume?

Root of legumes have root nodules

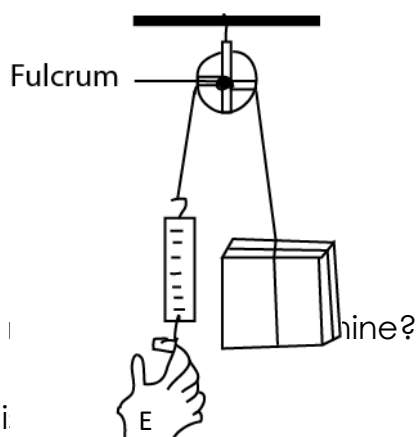
(b) Give any two examples of crops which are legumes.

(i) beans (ii) soya bean (iii) Ground nuts (iv) cowpeas

(c) How do legumes increase the fertility of the soil?

Root nodules contain bacteria that fix nitrogen into the soil

49. Use the diagram of the machine below to answer the question that follow.



(a) What is the machine?

Pulley

(b) What class is it?

First class lever

(c) Use letter E to show effort on the diagram.

(d) Which important activity in school is done using this machine?

Digging pit latrine, digging underground well

50. (a) Give any one example of fungi.

Mould, Mushroom, Yeast, Toadstool

(b) How do fungi reproduce?

By means of spores

(c) Give one way in which fungi are different from ferns

Fungi do not make their own food whereas ferns do

Fungi do not contain chlorophyll whereas ferns do

51.(a) What enables a drum to produce sound when it is hit with a stick?

By vibration of the skin

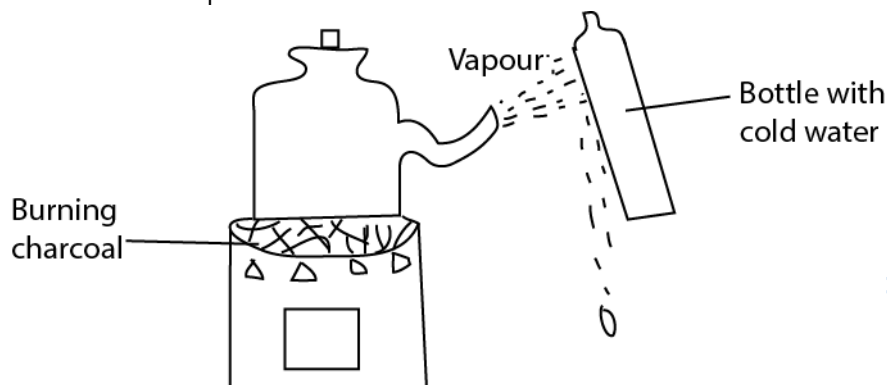
(b) Give a clear example that shows that light travels faster than sound.

A lightning is seen before thunder.

(c) State two ways in which sound can be stored.

- b) **Compact disc**
- c) **On cassettes**
- d) **Tape recorder**
- e) **On the computer**

52.The diagram below is of an experiment performed in a class. study it and answer the question that follow.



(a) What natural process in the environment does this experiment show?

Formation of rain

b) What does a stove (sigiri) represent in the process?

Sun

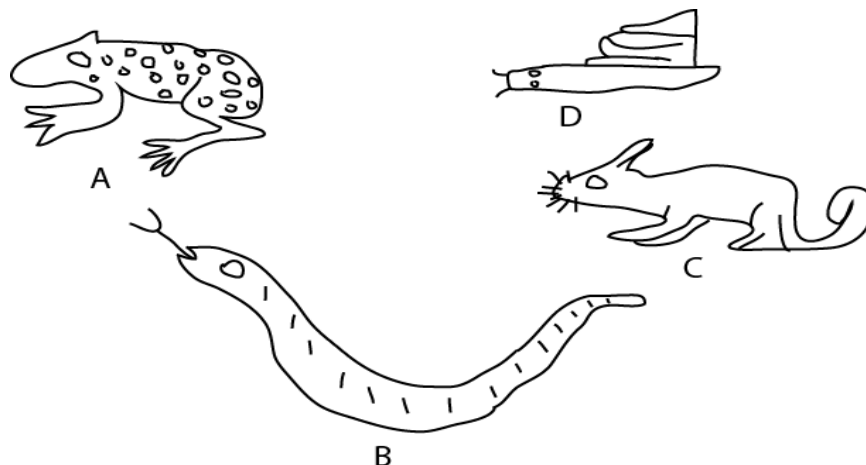
c) What is the function of the bottle with cold water?

Condenses the steam to water

d) Give any other local process that takes place in the same way.

Distillation

46. The diagram below are of three pests. Use them to answer questions (a) and (b) below.



a) In which way are animals A, B and C similar?

All are vertebrate

b) How is the reproduction in animals C different from that of the other animals?

Produce young one alive the other produce eggs

c) To which animals does animal A belong?

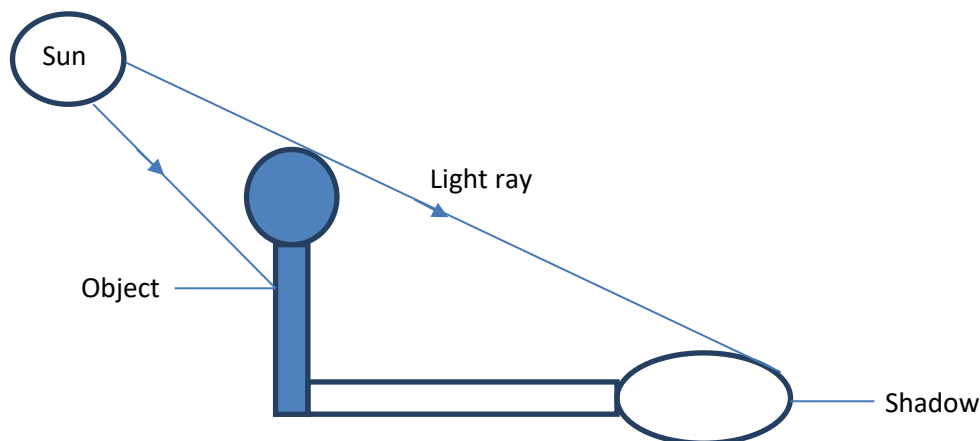
Amphibian

d) How does animal D protect itself against its enemies?

With draws into its shell

54. Draw a diagram showing how a shadow is formed. Label

Draw a diagram showing how a shadow is formed. Label your diagram correctly



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PLE INTEGRATED SCIENCE 2000

SECTION A

1. Which substance can exist in all of the three states of matter?

Water

2. How does a millipede protect itself from danger?

It coils its body

3. Why is a mushroom not a true plant?

Does not have chlorophyll, Does not manufacture its food

4. Why are canine teeth suitable for tearing food?

They are sharp and pointed

5. Give one of the secondary sex characteristics that is common in both adolescent boys and girls.

Growth of pubic hair ,Sweat gland become more active, Growth of hair in the armpit

6. How is the function of motor nerves different from those of sensory nerves?

Motor nerve carry impulses from the central nervous system to the body while sensory nerves carry impulses from the body to the to the central nervous system.

7. Why is a dry season most suitable for crop harvesting?

There is enough heat to dry the crops

8. What is the importance of de-beaking in poultry?

The stop poultry from eating eggs



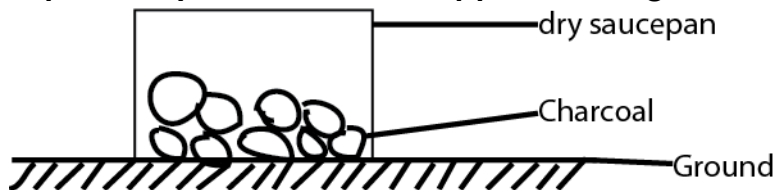
Debeaking is cutting off the sharp end of the beak of poultry

9. State any one sign of a dehydrated child.

Pale body, Sunken eyes

10. In the diagram below, burning charcoal was removed stove (sigiri) and it was covered by a dry saucepan as shown .After a short time ,it stopped burning .

Explain why the charcoal stopped burning



Oxygen that supports burning was cut off from the burning charcoal

11. Give one sign you would use to identify a compound fracture.

Bone breaks and come out of the skin

12. Why is the spacing of children important to a family?

Easy to plan for the family

13. State one external physical feature one would use to identify a cock in poultry.

A cock has a bigger crown than hen

A cock has a large comb and wattle

14. What is soil erosion?

Soil erosion is the washing away of top soil by agents such as wind, running water.

15. Give a reason why water passes through sandy soil fastest.

Sandy soil has big particles and air spaces

16. Alex keeps his left-over food covered. why does it go bad after some time?

Due to presence of bacteria

17. Give one main difference between plants and animals.

Plants manufacture their food whereas animals do not.

Plants have chlorophyll, animals do not have chlorophyll

18. Why is carbon oxide used as a fire extinguisher?

Carbon dioxide does not support burning

Carbon dioxide is denser than air, thus it displaces oxygen from a burning item

19. Mukasa's baby has these signs:

Very underweight, Always hungry, Pot belly, bony face, Wasted muscles

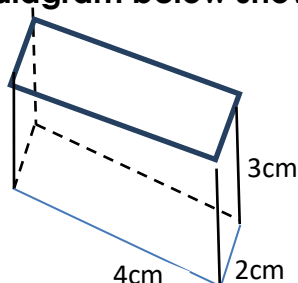
What disease is the baby likely to be suffering from?

Kwashiorkor

20. Beside use of seeds, what other part of a flowering plant can be used for propagation?



21. The diagram below shows a chalk box. Find its volume.



$$\begin{aligned}\text{Volume} &= \text{length} \times \text{width} \times \text{height} \\ &= 4 \times 2 \times 3 \\ &= 24\text{cm}^3\end{aligned}$$

22. State one of the characteristics of the objects that float on water.

They are less dense than water

23. Why is the moon not regarded as a star?

Does not give out its own light

Study the animals given in list A and those B .Use it to answer questions 24 and 25

A: FISH, BIRD, FROG

B: MAN, WHALE, BAT

24. How do animals in list A differ from those in B as regards reproduction?

Animals in list A reproduce by laying eggs while animals in list B produce live young ones

25. How are animals in list A similar to those in list B?

They are all vertebrates

26. What is the source of energy in thermal electricity?

Fuel

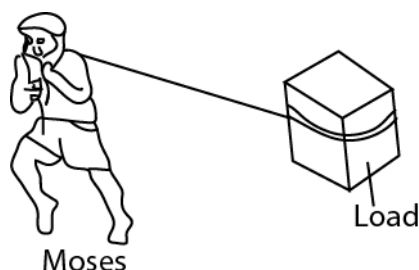
27. Give one way in which friction is useful to a person riding a bicycle.

Slows down the speed of bicycle during braking

28. Josephine could only read her notes when the book was at a distance of not more than one metre from her eyes. What advice would you give Josephine?

Use a concave lens spectacle to correct her shortsighted defect.

29. In the diagram, Moses is pulling a load the ground surface, as shown below.



How could Moses make his work easier?

By using rollers

30. What is the First Aid for high fever?

Sponging with wet lukewarm cloth

31. In terms of machines, how is the hammer similar to the human arm?

Both make work easy

32. What should be done to a clinical thermometer before taking the temperature of a person?

Should shake to take mercury back to the bulb

33. How can a child acquire artificial immunity?

Through vaccination

34. How does a vent help to reduce smell in a VIP latrine?

Allows the air to flow through taking bad smell with it outside

35. What is one possible danger of buying drugs from local shops or markets?

May buy expired drugs

Take wrong doses, Take overdose

36. What is near drowning?

Near drowning is when a person swallows water in a water body, become unconscious but does not die

37. What feature enables a housefly to spread germs?

Hairy body

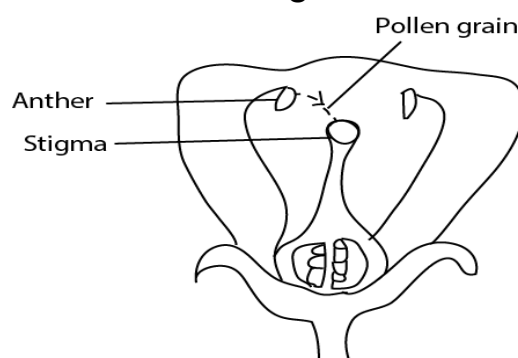
38. Why is budgeting in a family useful?

- ✓ To prevent over expenditure
- ✓ Plan for the needs of the family fairly
- ✓ To allow saving

39. Give one example where bacteria are useful to man.

- ✓ Bacteria decompose organic wastes to form humus
- ✓ Produce vitamin K in the intestines
- ✓ Fermentation and formation of butter.

40. In the space below, draw a diagram to show self-pollination in a flower.



SECTION B

(a) Give two characteristics of insect pollinated flowers.

- (i) brightly colored petals (ii) they have strong scent (iii) they have nectar (iv) sticky stigma

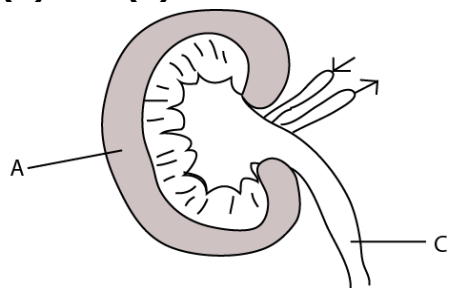
(b) Why is a moth able to pollinate plants at night?

They detect strong scent from flowers

(c) State the difference between self-pollination and cross –pollination .

Self-pollination is the transfer of pollen grains from the anthers to the stigma of the same flower while cross pollination is the transfer of pollen grain from the anther of one flower to the stigma of another flower of the same kind.

42. The diagram below shows the structure of a kidney. Use it to answer question (a) and (b)



(a) Name the part labelled with letter A.

Cortex

(b) What substance goes through the part labeled C?

Urine

(c) State any two function of the kidney that are similar to those of a skin.

(g) Removal of urea

(h) Remove excess water

43.(a)state any one characteristics of social insects.

Live and move together such as ants and bees

(b) Give any two characteristics of flowers which attract bees to visit them.

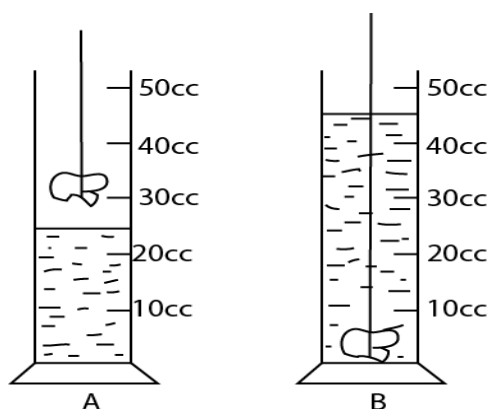
Good scent, Brightly colored petals

Contains nectar

(c) Why is a worker bee not able to reproduce?

They are sterile

44. The diagram below is a method of measuring an irregular object. Study it and answer questions that follow.



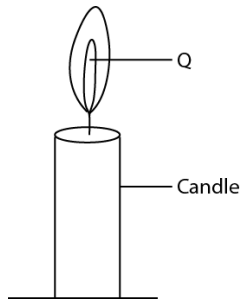
(a) Calculate the volume of the stone.

$$\begin{aligned}\text{Volume of stone} &= \text{volume of water + stone} - \text{volume of water without stone} \\ &= 45 - 25 \\ &= 20\text{cc}\end{aligned}$$

(b) Name the method used to find the volume.

Displacement method

45. The diagram below is of a burning candle. Use it to answer question(a) and (b)



(a) What two forms of energy are given off at Q?

iii. Light

iv. heat

(b) What gas is supporting the process?

oxygen

(c) What other process in living thing produces the same gas as the candle?

Respiration.

Germination

46. Use the list of food stuffs given below and answer the following questions.

BEANS, RICE, CABBAGE, MILK, ORANGES.

(a) Give two food stuffs that are a source of proteins.

(i) Beans

(ii) Milk

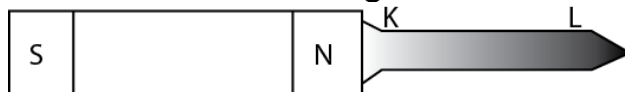
(b) How are cabbages useful in one`s diet?

Add roughages to prevent constipation

(c) Why would you regard a list of the foods given above a balanced diet?

It contains all the necessary food nutrients

47. In the diagram below ,when the nail was brought nearer to the magnet it was attracted as shown Use the diagram to answer questions (a) to (d) below.



(a) How does the nail get magnetized?.

By induction

(b) Name the pole marked L.

North pole

(c) which other method can be used to magnetize the nail without using a magnet?

Electrical method

(d) Name the type of a magnet in (c)

Electromagnet

48. (a) What is the use of First Aid box?

To store first aid tools

(b) What is meant by drug abuse?

Take unprescribed drugs that put a person's life in danger.

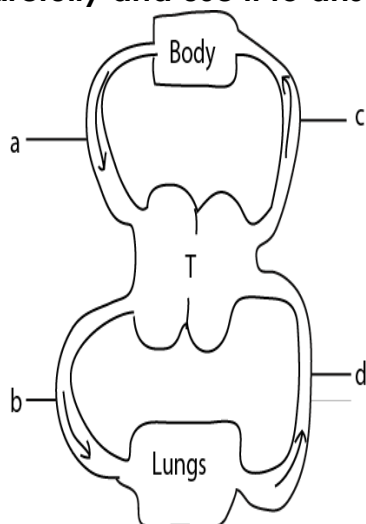
(c) Give any two pieces of advice to a person who is on drug abuse.

✓ Sensitize him/her on the bad effect of drug abuse

✓ To get activities that can keep him busy during his/her free time.

✓ To take him to rehabilitation centre.

49. The diagram below is an illustration of a blood circulation system in a mammal. Study it carefully and use it to answer questions (a) and (b) below.



a) what body organ does part T represent?

Heart

b) What is the difference in the blood carried by blood vessels marked B and C.

B carries deoxygenated blood whereas C carries oxygenated blood

c) Give the difference between an artery and a vein.

- ✓ Artery have thick walls whereas veins have thin walls.
- ✓ Arteries carry blood from the heart to the body whereas veins carry blood from the body to the heart

50. Complete the table below which shows some disease and how they are spread among people

Disease	How it is spread
e) Gonorrhea	Having unprotected sex
f) Rabies	Infected dog bite
Tetanus	Through dirty wound and cuts
(iv) Tuberculosis	Though air by coughing

51.(a) What first aid will you give to an accident victim?

Check the person's pulse whether is still alive or not.

Stop bleeding

Put a splint to broken part of the body.

(b) Explain how you will administer first aid nose bleeding.

(i) pitch the nose to stop bleeding

(ii) bend the head forward

Breath through the mouth.

52. (a) Name two agent of soil erosion.

(i) wind (ii) running water (iii) animal

(b) How does trees stop soil erosion?

(i) they reduce the speed of wind

(ii) their roots hold the soil particles together.

(c) How does tree-cutting in an area lead to soil erosion?

Expose the soil to agents of soil erosion

53. (a) What is water pollution?

Adding substance to water which makes unsafe for drinking and inability to support life.

(b) Suggest any two ways in which a community can improve on water source.

(i) fence it to prevent stray animals from contaminating it

(ii) Digging around the water source

(c) Why is borehole water safer to drink than well water?

The borehole water is not exposed like a well's water

54. (a) Suggest any two methods that can promote the idea of PHC in a school.

i. regular cleaning of the latrine

ii. sweeping the compounds

iii. washing plates after food

iv. elect healthy prefects

(b) What element is promoted in PHC?

Sanitation and hygiene

(c) Identify any two activities that committees should do in your village.

✓ Organizing people for immunization

✓ Educating people about health and associated advantage

✓ Improving the source of clean water in the village

✓ Organizing people for community sessions

55. The table below shows part of child's immunization card. Use it to answer question (a) to (d) below

	1	2	3
BCG	12/8/88	16/12/88	
POLIO	11/8/88	16/12/88	13/01/89
DPT	11/8/88		13/01/89
MEASLES	9/5/89	COMPLETED	

(a) When was this child born?

12/8/88

(b) Give a reason to support your answer in (a) above

BCG is given soon after birth

(c) At what age was the immunization completed?

9 months

(d) Give a reason for your answer in (c) above

9 months is difference between the dates of completion of vaccination and that of commencement of vaccination

END

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