

**SCIENCE MODERATED ITEMS 2023**

**ITEM 3/15**

**MAKING GUIDE 3/15**

**SECTION A (40 marks)**

*(For questions 1-40, carry one mark each)*

1. Write AIDS in full.

Acquired Immune Deficiency Syndrome .

2. Give one disadvantage of friction in machines.

- Friction causes wear and tear of machines  
- Friction causes unnecessary heat .

3. Why is the changing of water into ice referred to as a physical change?

- Changing of water into ice is reversible .  
- It does not form a new substance .

4. State the importance of the blood cell whose shape is drawn below.



It transports oxygen in the body .

Mention one material you would need to prepare Oral Rehydration Solution.

Salt, Sugar, Clean boiled water .

5. Give one reason why farmers mulch their gardens.

To improve soil fertility // To conserve soil moisture

6. State any one way farmers in Uganda control external cattle parasites.

⇒ By dipping cattle in acaricides .

⇒ By spraying animals with acaricides .

7. How is the habit of bees visiting flowers important to plants?

Plants' flowers are pollinated by bees .

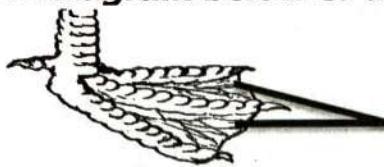
8. How does refrigeration prevent food stuffs from going bad?

Refrigeration makes the bacteria inactive (dormant)

9. Why does a fish die when removed from water?

Due to lack of dissolved oxygen .

**Use the diagram below to answer questions 11 and 12.**



M

10. Identify the type of birds with such a type of foot.

*Swimming bird*

11. How do birds with such type of foot make use of the structure labelled M?

*For swimming in Water.*

12. State any one law that governs the taking of alcohol in Uganda.

*Alcohol is not for sale to persons under 18 years.*

13. Mention one animal that uses echoes in its movement.

*A bat.*

14. What is the role of sunlight during photosynthesis?

*Sunlight provides energy during photosynthesis.  
It splits water molecules in a leaf during photosynthesis.*

15. State one reason why you would prefer artificial insemination to natural

*insemination in cattle keeping?*

*Artificial insemination controls the spread  
of venereal diseases unlike natural insemination.*

16. Identify one health habit that may result into destruction of the human lungs.

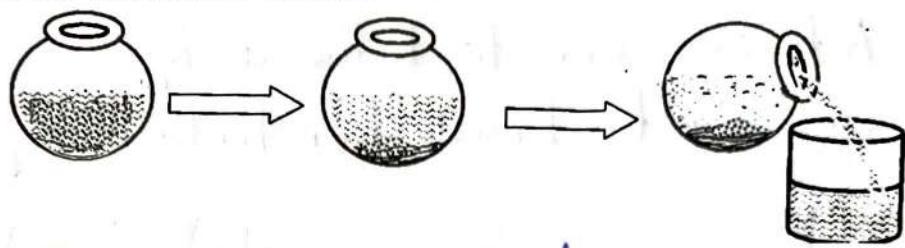
*Smoking.*

17. Give any one example of a non-renewable resource in the environment.

*Minerals.*

*Fossil fuels*

18. **What do we call the method of obtaining clean water from muddy water illustrated below?**



Decantation method.

19. Give one reason why the clean water obtained by the method in No. 18 above is not safe for drinking.

It contains germs

20. Mention one health problem that may result from over excitement or prolonged hunger.

Fainting.

21. Identify any one sex offence faced by adolescents.

Masturbation, Incest

22. In one way, give advice to Mrs. Kafeero so as to control the vice of egg eating on her poultry farm.

→ By debeaking his birds.

→ By collecting eggs on time.

23. Identify one danger that may result from sharing a house with potted plants at night.

There is competition for oxygen between plants and people at night.

24. State one factor that adapts a housefly to spreading germs.

A housefly has a hairy body.

25. What form of energy would you employ to make water evaporate?

Heat energy

26. In one way, state how you would help your young sister to promote personal hygiene. *Advising her to bathe daily.*

27. State the reason why a cockroach moves with its abdomen raised on a floor with maize flour. *To prevent maize flour from blocking its spiracles.*

28. Why are electricity wires fixed loosely on poles? *Spiracles.*

29. Besides using a child health card, how else can you identify a child who was immunised against tuberculosis? *To leave room for contraction during cold days.*

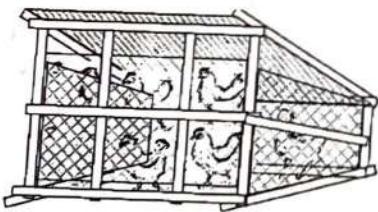
30. Names one pest that attacks root crops. *Monkeys, Squirrels, eel worms*

31. State a health problem children may face if underfed with food rich in carbohydrates. *Children may get Marasmus*

32. Calculate the density of an object whose mass is 100g and volume 200cc.

$$\begin{array}{l} M=100g \\ V=200cc \\ D=? \end{array} \quad \begin{array}{l} \text{Using } D = \frac{M}{V} \\ D = \frac{100g}{200cc} \\ D = 0.5g/cc \end{array}$$

**Use the diagram below to answer the questions 35 and 36.**



33. Identify the system of poultry keeping illustrated above.

*Cage system || Battery system.*  
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Note:- The above system is not battery cage system. This is a repetition.

34. Give one advantage of the poultry keeping system illustrated above.

- Birds are protected from wild animals.  
- It is easy to identify a sick bird.

35. Explain one way how blood is prevented from flowing back along vessels during circulation in the human body.

Some blood vessels (veins) have valves that prevent the backflow of blood.

36. Besides banana fibres, give one example of a plant fibre.

Cotton wool // Sisal.

37. Name the amphibian that lays the eggs drawn below.



A toad.

38. Suggest one way of preventing ourselves from tape worm infections.

By eating well cooked meat // By eating washed fruits.

**SECTION B (60 marks)**

(For questions 41 - 55 carry four marks each)

39. a) What is soil erosion? Is the gradual removal of topsoil by its agents.

b) Write down one agent of soil erosion.

- Fast flowing water  
- strong wind

c) Identify any two dangers of soil erosion.

- Soil erosion leads to soil exhaustion  
- Soil erosion leads to destruction of soil structure

40. a) Name the type of metamorphosis a housefly undergoes.

A complete metamorphosis.

b) How is a housefly useful during its larva stage?

It reduces the volume of faeces in the pit latrine.

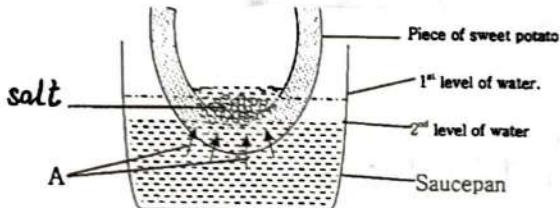
c) Identify any one disease spread by houseflies.

Trachoma      Dysentery  
Diarrhoea      Typhoid.

d) Suggest any one way of reducing the spread of diseases by houseflies.

- Spraying houseflies using insecticides.
- Smoking toilets to kill houseflies.

41. **The diagram below a process in nature. Use it to answer the given questions.**



a) Which process in nature is represented above?

Osmosis.

b) What do arrows marked A represent?

Diffusion of water molecules

c) Why did the water level in the saucepan reduce after sometime?

Most of the water was absorbed by the piece of sweet potato.

d) How is the above process useful to plants?

It helps plant roots to absorb water and mineral salts from the soil.

42. **State one activity a family may do to promote:** mineral salts

i) Family sanitation:

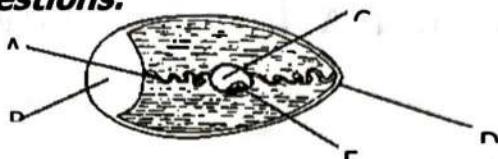
\* Proper disposal of house wastes from the soil.

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\* Slashing tall grass near the home.

- ii) Immunisation: - Taking children for immunisation.
- iii) Food and Nutrition: - Feeding family members on a balanced diet.
- iv) Control of communicable diseases. - Boiling drinking water -

43. **The diagram below is of a cross-section of an egg. Use it to answer the given questions.**



a) Name the parts labelled C and A.

Chalaza.

b) Apart from protecting the inner parts, give one other function of part D.

Part D allows gaseous exchange.

c) Which letter indicates the part that develops into a chick?

Letter E.

a) What is environmental degradation?

Is the lowering of the quality of the environment

b) Outline any two human activities that lead to environmental degradation.

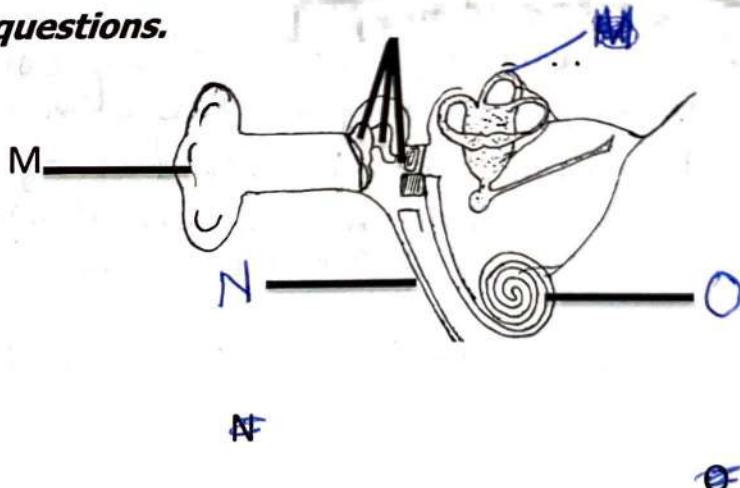
Deforestation || Swamp reclamation

c) Identify one way by which man helps to allow continued existence of

trees. \* Practising reafforestation.

\* Practising agro forestry.

44. **The diagram below is of a human organ. Use it to answer the given questions.**



a) Name the part labelled M.

Pinna

b) Give the role of the parts marked O during the hearing process.

It changes sound vibrations into sound impulses.

d) Which letter represents the part that equalises the pressure in the ear to the

Letter N

atmospheric pressure?

e) State one major function of the organ in the diagram.

For hearing.

45. a) Mention any two advantages of a VIP latrine?

\* It does not produce a bad smell.

\* It has a screen that traps houseflies till they death.

b) Suggest any one way of preventing convectional pit latrines from smelling badly.

By smoking them.

d) Give the reason why a pit latrine should be located at least 30m away from a water source.

To prevent water contamination

46. a) In one sentence, describe the first aid you would give a victim of;

Dipping the burnt part in clean cold water.

i) a burn: A burn is an injury on the skin caused by

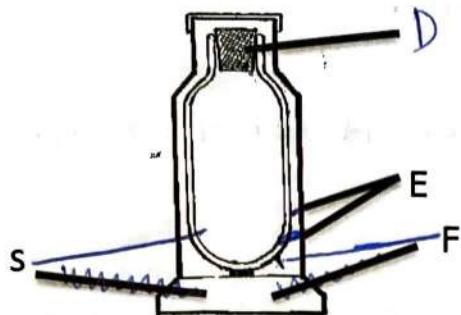
ii) fever: - is when the body temp - By tepid sponging.

iii) near drowning: - Applying mouth to mouth breathing.

b) Why should a person who has taken paraffin or jik not be made to vomit?

Vomiting causes harm and damage to the throat.

47. Use the diagram of the thermos flask below to answer the given questions.



- a) Name the part marked D

Cork / stopper.

- b) Give the functions of the parts marked F and S.

F - Prevents matter from entering the vacuum.

- S - Prevents heat loss or gain by both conduction and

c) Explain how the parts marked E control heat loss or gain when the convection equipment is being used. It prevents heat loss or gain by radiation because it is a good reflector of heat.

48. a) Identify any two problems faced by girls who become pregnant at a tender age.

\* It leads to school dropout.

\* It leads to early marriages.

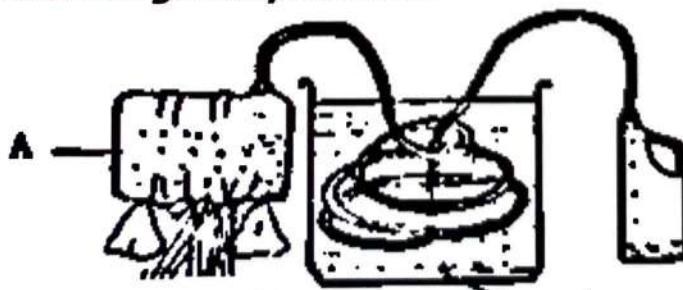
- c) Identify any two categories of people in our society who stand high risks of catching HIV.

\* Prostitutes.

\* Youths

\* Long distance drivers.

49. The diagram below shows a method of producing alcohol. Use it to answer the given questions.



THIS M

P) +256708438054

a) Name the method of producing alcohol in the diagram.

Distillation method.

b) State the role of cold water in the process above.

Cold water condenses ~~water~~ alcohol.

d) Mention the form of physical change that takes place in drum A.

Evaporation.

e) Give one use of the alcohol produced by the above method.

It is used to sterilize medical instruments.

50. a) State two factors you would use to identify a dicotyledonous plant.

\* Presence of taproot system.

\* When a plant has network leaf venation.

b) Give the role of each factor below during seed germination.

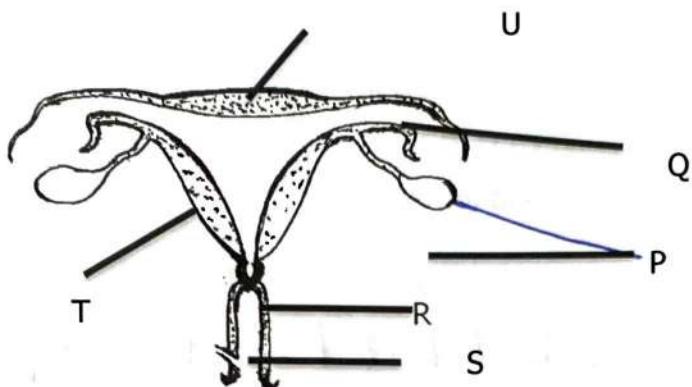
i) Moisture: - It softens the testa for the radicle to come out.

ii) Oxygen: - It is used for respiration.

51. **Match the processes to the gases they need to take place.**

<u>Process</u>	<u>Gas</u>
i) Preservation of bottled drinks;	carbon dioxide
ii) Rusting	nitrogen
iii) Storage of semen	carbon dioxide
iv) Putting out fire	oxygen

52. Use the reproductive system below to answer the given questions.



a) Name the part marked P.

Ovary.

b) What do we call the type of pregnancy where a zygote implants itself in part Q?

Ectopic pregnancy.

c) What health problem affects part R that women should always check for?

Cervical cancer.

d) Which letter indicates the part where sperms are deposited during sexual intercourse?

Letter S

END

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## SCIENCE MODERATED ITEMS 2023

### ITEM 4/15

### MAKING GUIDE 4/15

#### SECTION A:

1. Which body organ is used for tasting?

Tongue

2. What does the term "vice" mean in poultry keeping?

Vice is a bad habit in poultry.

3. How is a seed different from a fruit? A seed is a mature fertilized ovule while a fruit is a mature fertilized ovary.

4. Why are metals painted?

To prevent them from rusting.

5. Mention one characteristic which makes a spider not to be grouped under insects.

A spider has four pairs of jointed legs while insects have three pairs of jointed legs.

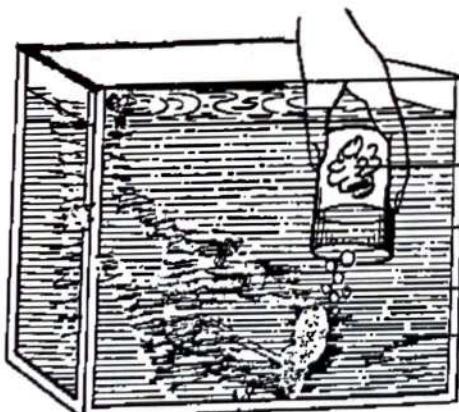
6. Why do people preserve food?

To prevent food contamination.

7. How are conifers different from other non-flowering plants?

Conifers reproduce by means of seeds well as other non-flowering plants reproduce by means of spores.

8. What property of air does the diagram illustrate?



**container**

**dry handkerchief**

**glass**

**bubbles**

**water**

Air occupies space.

8. Give the function of a pinna in a human ear.

The pinna collects sound waves.

9. Explain how plants are used as energy resources in our environment.

Plant wastes are used for making biogas.

10. Name the type of change that takes place when mangoes ripen.

Biological change

11. Why does a needle placed gently on the surface of water float?

It is due to capillary action.

12. What is the importance of transpiration to plants?

Transpiration cools plants

14. What component of loam soil makes it most suitable for growing crops?

15. State the importance of grit in the digestive system of a bird.

Grits crush food into smaller particles.

16. Identify one example of a magnetic substance.

Iron, brass, Zinc, Steel, Nickel, Cobalt

17. Smoking is very bad to human health. Why does the government of Uganda licence companies that make cigarettes?

To earn revenue from Cigarette companies.

18. Write CDD in full.

Control of Diarrhoeal Diseases.

19. Why are people encouraged to drink boiled water?

To control water-borne diseases.

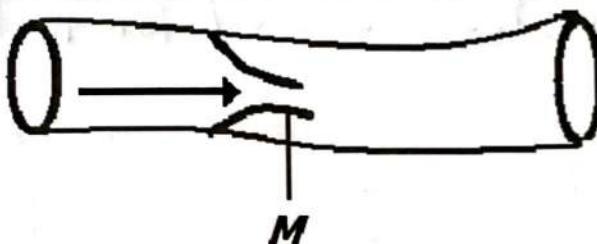
20. A female fish lays eggs in water. How are these eggs fertilized?

The eggs are fertilized when the male fish comes and sheds semen over them. (They are fertilized externally)

21. Nanku burnt herself with a hot flat iron. What type of injury did she get? (1y)

A burn.

Use the diagram below to answer question 22.



22. What is the importance of the structure marked M in the above blood vessel?

Structures marked M prevent the backflow of blood.

23. Give one difference between a sprain and a strain.

A sprain is a torn or overstretched ligament while a strain is a torn or overstretched tendon.

24. In which part of a human body are red blood cells made?

Red bone Marrows of short bones

27. Identify the body part an insect uses for balancing during flight.

Halteres

28. What does the term "resource" mean?

Is anything used by man to satisfy his needs.

29. Why do we see the flash of lightning before we hear the sound of

thunder during rain storms? Light travels faster than sound in air.

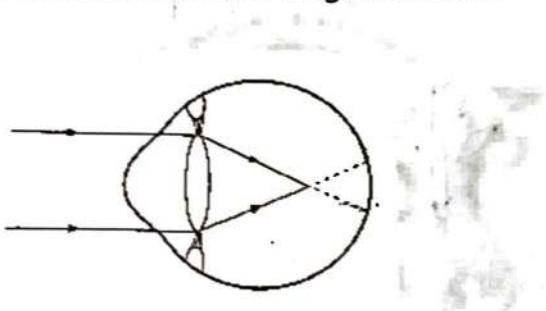
30. Write down the vector that spreads elephantiasis.

Culex mosquito.

29. Convert  $100^{\circ}\text{C}$  to  $^{\circ}\text{F}$ .

$$\begin{aligned} {}^{\circ}\text{F} &= ({}^{\circ}\text{C} \times \frac{9}{5}) + 32 & {}^{\circ}\text{F} &= 180 + 32 \\ {}^{\circ}\text{F} &= (100 \times \frac{9}{5}) + 32 & {}^{\circ}\text{F} &= 212^{\circ} \\ {}^{\circ}\text{F} &= (20 \times 9) + 32 & \therefore 100^{\circ}\text{C} &= \underline{\underline{212^{\circ}\text{F}}} \end{aligned}$$

30. What eye defect is shown in the diagram below?



Short sightedness (Myopia)

31. Why is the measles vaccine administered at the age of nine months?

Babies are born with natural immunity against measles which lasts up to nine months.

32. State one advantage of family planning.

Family planning helps in child spacing.

33. Identify one psychological characteristic which is common in adolescents.

- Adolescents become attracted to members of opposite sex.
- Adolescents develop increased sexual desires.

34. Apart from getting sunlight, why else do weak stems climb others

To get extra support

35. How does rural electrification help in conserving the environment?

Rural electrification reduces deforestation in an area.

36. Name one cold blooded vertebrate that has a bony shell.

Tortoise, Turtles, Terrapins.

37. Identify one health reason why building industries should be limited.

To control air pollution.

To control sound pollution.

38. Why should wood being burnt into charcoal be covered with soil?

To limit the supply of oxygen to the wood.

39. In the space provided below, draw a compound pinnate leaf.



40. Why is food digestion said to begin in the mouth?

- The mouth has teeth that help in mastication.
- The mouth contains salivary amylase that starts digestion of starch.

#### **SECTION B**

41. (a) What is a solute? A solute is a substance that dissolves in a liquid (solvent)

- (b) Give one solute used in making ORS.

Salt

Sugar

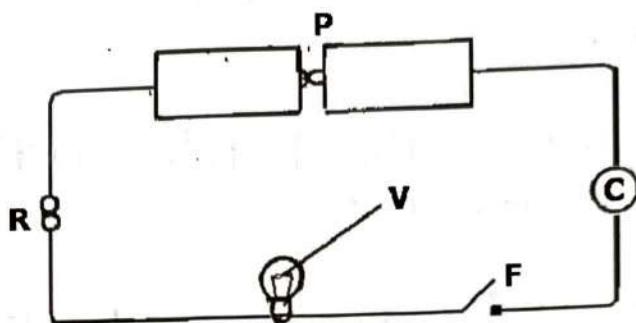
- (c) Why is water said to be a universal solvent?

Water dissolves almost all solutes.

- (e) What health condition can be treated using ORS?

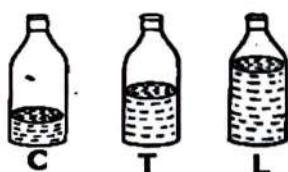
Dehydration.

42. The diagram below shows an electric circuit. Study it carefully and answer the questions about it.



- (a) Name part marked F.  
*Electric switch*
- (b) Give the function of part marked R.  
*\* R breaks the circuit in case of too much current flow along the circuit*
- (c) What form of energy is contained in part marked P?  
*Chemical energy*
- (d) Why should part marked V fail to produce light when F is closed?  
*If it is due to poor arrangement of dry cells*

43. Study the diagram and answer the questions about it.



- (a) Which of the bottles, when air is blown into them, will produce sound of the highest pitch? *Bottle L*

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

Bottle L has a smaller space of vibration of air.

- (c) How can you make the bottles to produce the same sound pitch of sound?

By filling the bottles with the same amount of water.

- (d) What does the term "volume of sound" mean?

Volume is the loudness or softness of sound.

- 44(a) Give one example of a legume.

Beans, peas, cowpeas.

- (b) How are nitrates important to leguminous plants?

Nitrates help legumes to manufacture proteins.

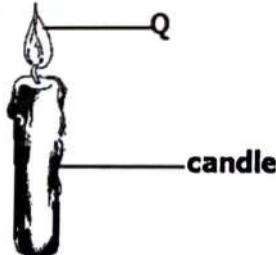
- (c) What food value do we get from leguminous plants?

Proteins.

- (e) Apart from root nodules, give any other characteristic of leguminous plants.

Leguminous plants have pods.

45. The diagram shows a burning candle. Use it to answer the questions about



- (a) Name two forms of energy given off at Q.

Heat energy / Light energy.

- (b) Which component of air supports the candle to burn?

Oxygen.

- (c) Identify one other process in living things that uses the same gas as in the experiment above.

Respiration.

- 46(a) Identify one type of cattle kept in Uganda.

Beef cattle / Dairy cattle / Draught cattle

- (b) Give the importance of the type of cattle you have named in (a) above.

For meat production / For milk production /  
For labour.

- (d) Identify two advantages of rearing exotic breeds of cattle over local breeds of cattle.

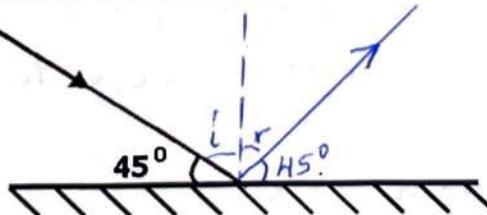
\* Exotic breeds of cattle grow and mature faster than local ones.

- 47(a) Define the following terms:

- (i) Temperature - Is the degree of hotness or coldness of a place or an object.
- (ii) boiling point - Is the degree at which a liquid starts boiling.
- (iii) heat - Is the form of energy that increases the temperature of an object.
- (iv) evaporation - Is the process by which a liquid forms a gas.

48. The diagram below shows a light ray being reflected through a

plane mirror.



(a) Complete the diagram above.

(b) Calculate the value of the angle of reflection.

$$r + 45^\circ = 90^\circ$$

$$r + 45^\circ - 45^\circ = 90^\circ - 45^\circ$$

$$r = 45^\circ$$

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

Regular reflection

(d) Give one characteristic of images formed through a plane mirror.

They are laterally inverted // They are virtual.

49(a) What is Primary Health Care?

Is the essential health care where the individual, the family and the community work together to solve

(b) Give two elements of Primary Health Care. their health problems

Food and nutrition / First aid

Family planning / Maternal and child health care

(c) State one activity done by a community in order to promote primary Health Care.

\* Sensitizing people about benefits of immunisation

\* Encouraging people to promote sanitation.

\* Carryout out a health survey.

50(a) Write AIDS in full.

Acquired Immune Deficiency Syndrome.

(b) Write down two ways through which AIDS is spread.

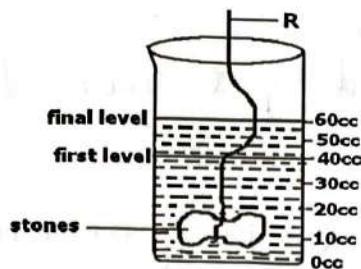
\* Through unprotected sexual intercourse with infected person

\* Sharing sharp skin piercing objects with an infected person

(c) What is the best way for a P. 7 pupil to avoid contracting AIDS?

Abstaining from sexual intercourse.

51. Study the diagram below and answer the questions about



- (a) Find the volume of the stone.

$V = \text{Final water level} - \text{First water level}$

$$V = 60\text{cc} - 40\text{cc}$$

$$V = 20\text{cc}$$

- (b) Give the use of the use of R in the experiment.

To lower the stone gently into the measuring cylinder

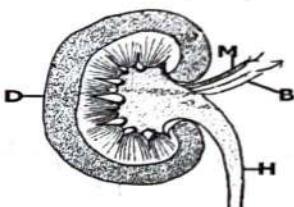
- (c) Why do objects weigh less in water than in air?

It is due to upthrust force on water.

- (e) Name the method used to find the volume of the stone.

Displacement method.

52. Study the diagram of the kidney and answer the questions that follow.



- (a) Name the parts marked H and D.

H - Ureter      D - Cortex

- (b) Which type of blood is carried by blood vessel marked B?

Deoxygenated blood.

- (c) Give one disease that affects the organ in the diagram above.

Nephritis, Kidney Cancer, Kidney stones.

- 53(a) What is a food chain?

A food chain is the way organisms obtain food in the environment.

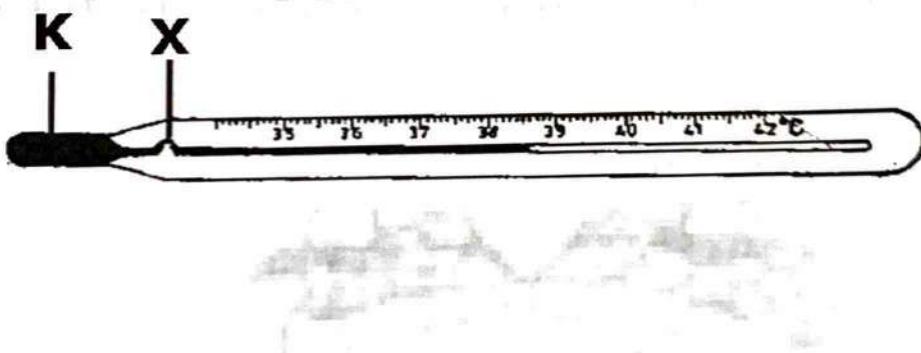
- c) Differentiate between primary consumers and secondary consumers.

Primary consumers are organisms which feed directly on the producers while secondary consumers are organisms which feed on primary consumers.

- (d) Give two ways how plants depend on each other.

\* Some plants climb others to get extra support.  
\* Some plants are protected from strong wind by other plants.

54. The diagram below shows a clinical thermometer.



- (a) What is the use of the above instrument?

To measure the human body temperature.

- (b) Name liquid marked K.

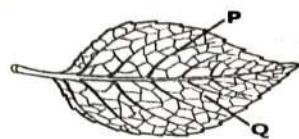
Mercury

- (c) In a human heart, which part carries out a similar function as part marked X?

Valves

- (d) Give the importance of part marked X. - To prevent the backflow of mercury to the bulb before the actual reading is taken.

55. Study the diagram below and answer the questions that follow.



- (a) Name part marked P

Vein.

- (b) What important process takes place in part marked Q?

To carry out photosynthesis  
For breathing (gas exchange)

- (c) Give two raw materials needed for the process named in (b) above to take place.

- Water
- Carbon dioxide

END

## **SCIENCE MODERATED ITEMS 2023**

### **ITEM 5/15**

### **MAKING GUIDE 5/15**

#### **SECTION A:**

1. Name the human organ for tasting.

Tongue

2. Why is brushing teeth a good health practice?

Brushing teeth prevents tooth decay.

3. Write down one activity a farmer can do in the dry season.

Sundrying harvested crops / Harvesting / Watering crops / Land preparation.

4. How does bush burning cause soil erosion?

Bush burning leaves the land bare exposing it to erosion agents.

5. State any one danger of defecating in the bush.

\* It leads to tapeworm infestation  
\* It leads to diarrhoeal diseases.

6. In one sentence, state how heat promotes food hygiene.

Heat helps in preserving food by sundrying.

7. Give any activity done to protect cattle from ecto parasites.

- Dipping animals in acaricides  
- spraying cattle - Dusting cattle.

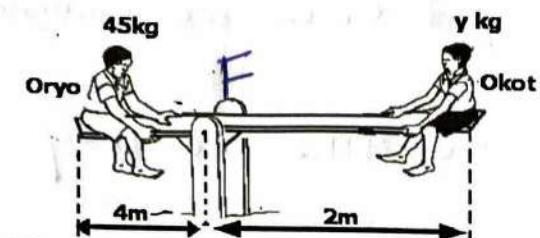
8. How is the function of a fuse similar to a switch in an electric circuit?

Both a fuse and a switch break the circuit.

9. In one word, write the name given to animals without backbones.

Invertebrates

The diagram below is of a simple machine. Use it to answer questions 10 and 11.



10. Use letter "F" to show the position of the fulcrum.

11. Which class of levers is the above machine?

First class lever.

12. In what way is a human kidney and the skin similar in function?

- \* 13. Why is soil erosion considered as a physical change?

It does not form a new substance.

13. Name the type of digestion in which the teeth breaks down food into small particles.

Mechanical digestion.

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

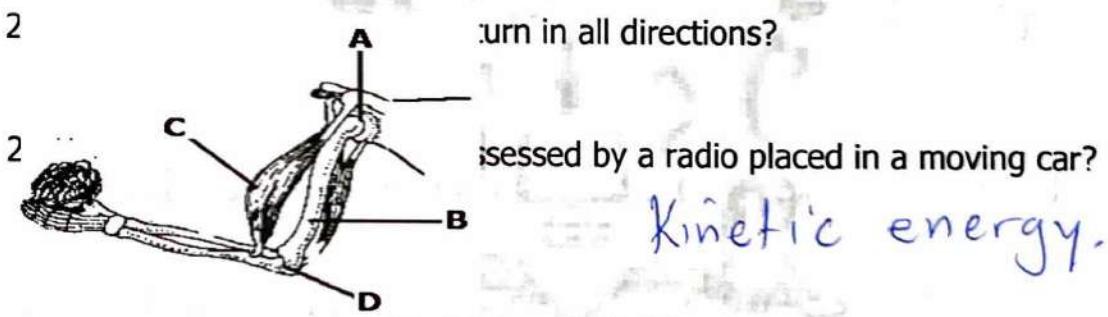
Plants purify air by releasing oxygen in the atmosphere.

15. Give the type of electricity produced when a plastic pen is rubbed on the hair.

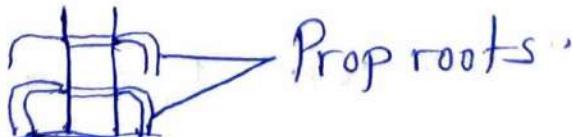
Static electricity.

16. In one sentence, write down the difference between lung cancer and other respiratory diseases. Lung cancer is non-communicable while other respiratory diseases are communicable diseases.
17. How do germs that cause AIDS affect the immune system of the body?  
The germs that cause AIDS destroy white blood cells.
18. Name the part of a flower which attracts pollinators.  
Petals

**The diagram below is of a joint on a human arm. Use it to answer question 20.**



22. Why does clay soil retain water longer than sandy soil?  
clay soil has fine soil particles unlike sand soil.
23. In the space below, draw and label prop roots.



24. How can a farmer make use of cow dung to control deforestation?

A farmer can use cow dung to make biogas used for cooking.

25. Name the non-living resource which supports life of a tilapia.

Water.

26. Why should garden tools be cleaned every after use?

- To prevent them from rusting.  
- To maintain their efficiency.

27. Name the part of the body where respiration takes place.

In the living body cells.

28. Mention one way a magnet can lose its magnetism.

By heating it  
By hitting it with a hammer.

29. Why do motorcyclists wear helmets?

To protect their heads from injury in case of an accident.

30. Name any one plant that stores its food in the stem.

Sugarcane // Irish potato

31. Give one factor that determines the size of an image in a pin hole camera.

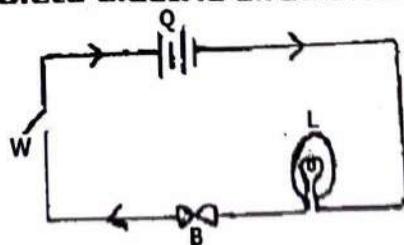
- Distance between the pinhole camera and the object  
- Size of the pinhole.

32. Which component of air is a bi-product of photosynthesis?

Oxygen.

The diagram below is of a simple complete electric circuit. Use it to answer question 33.

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33. Name the form of energy which takes place at

34. point L when the circuit is completed.

Heat energy  
Light energy

35. Which health measures can be done to a latrine which smells and is full of flies?

By smoking the latrine.

36. Give one way in which fruits are good in prevention of deficiency disease.

Fruits are rich in vitamin C.

37. When it is said that Isaac is anaemic. What mineral is he lacking in his blood?

Iron.

38. How can the School Health Committee tell whether a child is already immunized against measles without referring to the Child-Health Card?

By checking for the scar on the left upper arm.

39. Mention one danger of sharing a drug with another patient.

It leads to underdose

40. Apart from controlling erosion, give one other reason why mulching is important.

- \* Mulching improves soil fertility.
- \* Mulching conserves soil moisture.
- \* Mulching controls rapid growth of weeds.

41. Name the major way through which AIDS virus is spread.

Through sexual intercourse with an infected person.

## SECTION B

41a). Name the vaccine used to immunize against tuberculosis.

BCG Vaccine.

b). Give the immunization site for whooping cough.

Left upper thigh.

c). Why is immunization an important health activity among children?

Immunization boosts children's immunity.

d). Apart from immunization, state any other way children's immunity is boosted.

- \* Suffering and recovering from sickness.
- \* Through breast feeding.

42. The list below shows two groups of vertebrates shown above.

<b>A</b>	<b>B</b>
Chameleon	toads
Lizard	frog
Snake	newt
Crocodile	salamander

a). Identify the groups of vertebrates shown above.

i. A \_\_\_\_\_ Reptiles.

ii. B \_\_\_\_\_ Amphibians.

b). How is reproduction of animals in group A different from those in group B?

A undergo internal fertilization while B undergo external fertilization.

c). State any one use of scale on a fish.

- Scales protect delicate skin of a fish.

43a). Give the meaning of the following words as used in the study of sound.

i. pitch Is the highness or lowness of sound.

ii. frequency Is the number of vibrations produced per second

iii. volume Is the loudness or softness of sound.

b). How does a guitar produce sound?

By vibration of its strings when plucked.

44a). How do organisms such as mushrooms reproduce?

By means of spores.

b). Give one similarity between a bacteria and fungi.

- Both feed saprophytically and parasitically.

- Both are decomposers.

c). Give two examples of fungi apart from mushrooms.

Moulds                    Toadstools  
Puffballs                Yeast

45a). Give any two methods of making alcohol.

\* Fermentation method.

\* Distillation method.

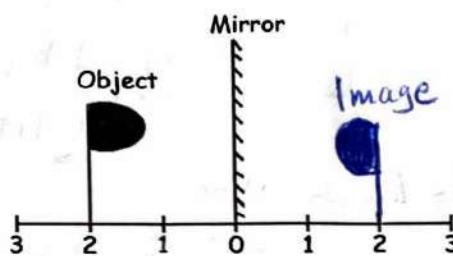
b). State any one scientific value of alcohol in the society.

\* Alcohol is used for making hand sanitizers.

c). Give any one health effect of alcohol to an individual.

- \* It leads to diseases (liver cirrhosis)
- \* It leads to brain damage.
- \* It leads to stomach ulcers.

46. The diagram below shows an object Y placed in front of a plane mirror M. Use it to answer the questions that follow.



(a) Draw on the diagram above the image of the object P.

(b) Give any two characteristics of images formed in such mirrors mentioned above.

- \* The image is virtual
- \* The image is laterally inverted.
- \* The image has the same size as the object.

(c) State any one use of side mirrors to motorists.

To view the traffic flow at the back of the motorist.

47a). Give any one other state of matter apart from liquid.

- \* Solid state
- \* Gaseous state

b). Give two reasons why we give first aid to casualties.

- \* To save life of a casualty.
- \* To reduce pain.
- \* To prevent further injuries.

c). How is a burn different from a scald?

A burn is an injury on the skin caused by dry heat while a scald is an injury on the skin caused by wet heat.

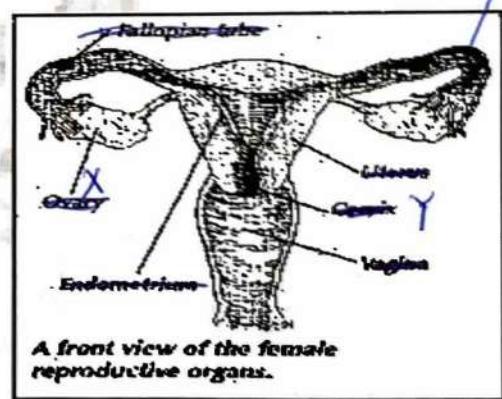
d). Give one major cause of fainting.

Limited supply of oxygenated blood to the brain.

48. The table below is about nutrition. Use it to answer question 48.

<b>FOOD VALUE</b>	<b>SOURCE</b>	<b>DEFICIENCY DISEASE</b>
Proteins	fish	kwashiorkor
Vitamin A	Green vegetables	Night blindness.
Carbohydrates	Cereals / cassava	Marasmus
Vitamin C	Oranges, guavas	Scurvy

49. The diagram below is of a female reproductive organ in man. Use woman it to answer questions.



a). Name the parts labelled;

i. X Ovary ii. Y Cervix

b). Give the function of part labelled X.

To produce Ova

To produce testosterone hormone.

c). Name the part shown above where fertilisation takes place.

Part Z

50a). Give any two disease vectors whose life cycle passes through water.

- \* Mosquitoes
- \* Black fly

b). State any diseases caused by poor sanitation in an area.

- |             |         |
|-------------|---------|
| * Diarrhoea | Typhoid |
| * Dysentery | Malaria |

51. (a) Lightning can destroy buildings, give any other two dangers of lightning.

- \* Lightning kills people and animals.
- \* Lightning can lead to forest fire.

(b) Give any other two ways in which people can protect themselves from dangers of lightning.

- \* Installing lightning arrestors on tall buildings.
- \* Avoid standing under trees when it is raining.

52a). Which germ causes AIDS?

Human Immunodeficiency Virus. (HIV)

b). Why is abstinence considered the best method for controlling AIDS among youth?

Abstinence is effective to youths.

c). Apart from AIDS, give two other sexually transmitted diseases.

- Gonorrhoea
- Candidiasis
- Syphilis

53a). Name the type of blood found in the following blood vessels.

- i. vena cava Deoxygenated blood
  - ii. pulmonary vein - Oxygenated blood

b). How are valves useful in a human heart?

Valves prevent the backflow of blood.

c). Name the component of blood that carries oxygen around the body.

Red blood cells.

54. Give the use of the following instruments as a weather station.

a). Anemometer To measure the speed of wind.

b). Rain gauge To measure the amount of rainfall received

c). Wind sock  To show the strength of wind -

d). Hygrometer \_\_\_\_\_ To measure humidity -

55a). Mention any two agents of seed dispersal.

Wind

## Animals

## Flowing water

b). How is dispersal of seeds important?

- \* It helps plants to colonise new areas.

\* It prevents plant extinction.

\* 14 prevents overcrowding of plants - How are fruits such as passion fruits adapted to the environment?

c). How are fruits such as passion fruits adapted to the way in which they are

dispersed?

\* Passion fruits are juicy to attract animals for dispersal.

They are light for easy carrying.

**END**