



UGANDA NATIONAL EXAMINATION BOARD

PRIMARY LEAVING EXAMINATION

2023

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Random No.						Personal No.		

Candidate's Name: THE BRIDGE EDUCATION SEVIRCES-UGANDA

Candidate's Signature: 07757-90041//07514-88579(Whatsup)

District ID No.

--	--	--	--

Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere on this paper
2. This paper has two sections: **A** and **B**.
Section **A** has **40** questions and section B has **15** questions. The paper has **15 printed pages** altogether.
3. Answer all questions. All answers to both sections A and B must be written in the spaces provided.
4. All answers **must** be written using a **blue** or **black** ball point pen or ink. Any answer or work written in pencil other than drawings will **not** be marked.
5. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss** of marks.
6. Do not fill anything in the table indicated:
7. **"FOR EXAMINERS' USE ONLY"** and boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
QN. NO.	MARKS	EXR'S NO.
1-10		
11-20		
21-30		
31-40		
41-43		
44-46		
47-49		
50-52		
53-55		
TOTAL		

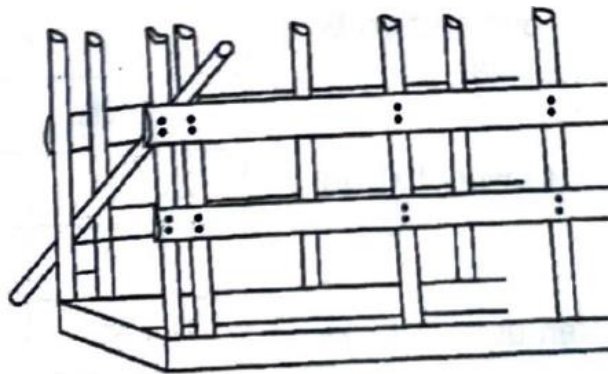
Turn Over

SECTION A: 40 MARKS

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

1. Name the type of teeth which develops last in human beings.
Molar teeth // Molars
2. Give any **one** way in which timely weeding of crops helps to control crop diseases.
It reduces the hiding places for pests// It removes affected weeds.
3. Give **one** element of weather which helps plants to make their own food.
Sunshine
4. State the purpose of pressing the belly of a casualty of near drowning.
Helps to remove water from the lungs of the victim// To remove water from the lungs and stomach.
5. Give any **one** reason why fish are able to live in water.
Fish have fins for swimming in water// Have streamlined bodies to reduce friction in water when swimming // Have gills for breathing in Water.

The diagram below shows a structure in a cattle farm. Study and use it to answer questions **6** and **7**.



6. Mention any **one** farm activity carried out in the above structure.
Deworming// Spraying// Castration//Numbering //Vaccination//drenching//dosing//castration//dehorning// artificial insemination.
7. How is the above structure useful when carrying out the farm activity you have mentioned above?
It restricts the movement of the animal// it prevents the movement of the animal// Prevents animals from running away// limits movement of the animal

8. Name the excretory organ that removes water and carbon dioxide from the human body.

The lungs//Lungs

9. Mention any **one** similarity between fungi and animals in the way they feed.

**Both fungi and animals feed on food made by other organisms
//Both feed on other organisms// Both feed on already made food//Both feed heterotrophically**

10. State **one** way in which the screen on the pipe of a VIP latrine helps to control diarrhoeal diseases.

The screen traps houseflies to death/Traps and kills houseflies that spread diarrhoeal diseases



11. State any **one** piece of advice you can give to children to help them prevent indigestion.

To chew food properly before swallowing//To eat small lumps of food//To avoid over eating//To always drink water after eating food.

12. State any **one** way in which you can safeguard yourself against smoking.

By making right decisions//By making yourself busy//By avoiding bad peer groups//Learning more about the dangers of smoking//Joining good groups with good people//Avoiding following seductive advertisements about tobacco

13. Give the reason why most cooking pans are made of aluminium.

Aluminium is light// Aluminium is a good conductor of heat// Aluminium is cheap// Aluminium does not rust easily// Aluminium is common and cheap to buy.

14. State **one** reason why the use of soap makes washing clothes easy.

Soap softens stains in clothes//Soap removes stains from clothes//it removes dirt from clothes.

15. Apart from deforestation, mention any **one** other human activity that can result into flooding in our environment.

Swamp drainage// Building houses in swamps, Constructing industries in swamps//Growing crops in swamps

16. Mention any **one** sign of roundworm infestation in humans.

Weight loss//Anaemia//vomiting//skin rash//fatigue// weakness//loss of appetite//diarrhoea.

The diagram below shows a metallic charcoal stove. Study and use it to answer questions **17** and **18**.



17. Give the function of the part labelled **M**.

To let in air that supports burning//for removing ash.

18. State **one** advantage of building the inner wall of the charcoal stove with clay.

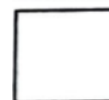
To conserve heat// For the stove to keep heat for a long time

19.State any **one** disadvantage of people living with domestic animals in the same house.

It leads to bad smell in the house// Animals contaminate utensils//It leads to easy spread of diseases// Leads to competition for oxygen between animals and people in the house or Leads to suffocation

20.Give **one** way in which the use of biogas is helpful in the conservation of environment.

Discourages deforestation, Biogas does not pollute the environment.



21. State the effect of opaque objects on a beam of light.

Light is obstructed and shadows are formed// Opaque objects obstruct a beam of light// They do not allow a beam of light to pass through them.

22. Apart from making candles, mention any **one** other way in which bees-wax is useful to people.

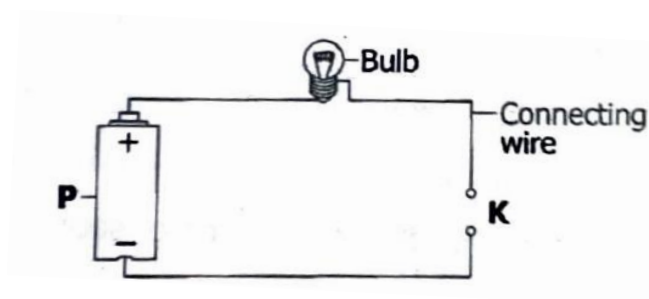
For making wax crayons// For making varnish//For making shoe polish//For making paint//It is used to make cosmetics

23. State any **one** reason why farmers are encouraged to preserve food stuffs like sweet potatoes.
For future use//To promote food security
24. Name any **one** force which a pulley overcomes when it is being used.
Gravitation force//Force of gravity//Friction force//Gravity Force
25. State **one** way in which a mask is important in maintaining the proper functioning of the respiratory system.
The mask prevents air borne disease//it prevents dust from entering the lungs//it prevents smoke from damaging the lungs//Helps to prevent the spread of droplet infection// Helps to prevent the spread of air borne disease.
26. Apart from having bright colours, state any **one** other thing that attracts pollinators to flowers .
Having nectar// Having scent//Good scent
27. State any **one** way of caring for simple garden tools.
Keeping them in cool dry places// Painting them//By cleaning Them after use//By keeping them in dry places//By repainting them//By oiling them.
28. State **one** way in which the child Health Card is important to a parent.
It helps to know the next date of immunization//Helps the parent to monitor the growth of his/her child
29. State any **one** factor that affects the pitch of sound produced by an object.
Frequency//tension//size of the vibrating surface//length of the vibrating string// thickness or thinness of the vibrating object
30. Name any **one** body part that may be checked during a school health parade. .
Teeth//finger nails// hair//mouth



31. State any **one** way in which screws can be important in our daily life.
They are used to fix things together//For fastening things together//for lifting vehicles during repair//Some screws help us to move upstairs easily// they are used to fasten wood and metals// used to hold things together//lids are used for closing tins and bottles.
32. Apart from being a source of food, give the reason why farmers hang green vegetables in poultry houses.
To control boredom of the poultry//To keep poultry busy// To enable poultry do physical exercises
33. State any **one** change in food which shows that food has gone bad.
Bad smell//change in taste//change in colour// growth of moulds on food.
34. State what would be observed when a plastic pen rubbed in hair is brought close to small pieces of paper.
It attracts the pieces of paper// Pieces of paper are attracted by the plastic pen// The pen will pick the pieces of paper

The diagram below represents a simple electric circuit. Study and use it to answer questions **35** to **36**.



35. Give the function of Pin the circuit.
For producing electrical energy// To produce electricity in a circuit// for producing electricity
36. Why would the bulb not light when a piece of glass is used to close
A glass is not a conductor of electricity //A glass is an insulator // A glass does not allow electricity to flow through it.
37. Name any **one** part of the human body where a gliding joint is found.
In the wrists// In the ankles

38. State any **one** reason why pruning of trees is important in agroforestry.

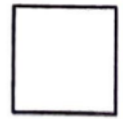
It reduces hiding places for pests//it reduces the weight of trees.

39. Write down any **one** activity that a School Environment Club can do to protect a school water source .

By fencing an open water source//by sensitizing learners about the dangers of polluting water sources//by enforcing strict laws about water pollution//by cleaning the water source.

40. State **one** reason why a person suffering from HIV/AIDS is easily attacked by many other diseases.

There immune system is weak//HIV weakens their immune system//HIV damages white blood cells.



SECTION B: 60 MARKS

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

41. (a) State any **two** effects of rusting on iron sheets.

rusting tears iron sheets/rusting changes the colour of iron sheets/it reduces the strength of the iron sheets/reduces the life span of iron sheets. Changes the colour of the iron sheets// Makes iron sheets weak// Breaks the iron sheets

- (b) Identify **two** ways in which people protect iron sheets from rusting.

By galvanising the iron sheets// By painting them//By removing leaves from iron sheets//keeping away moisture (water) from the iron sheets

42. The table below shows an example of a farm record. Study and use it to answer the questions that follow.

Date	Health problem	Animal(s) affected	Treatment/ Control method	Cost of treatment
01/8/2023	Mastitis	Goats No.4 And No.8	Antibiotics	17,000/=
12/10/2023	Worm infestation	Kids(06)	Dewormers	25,000/=
03/11/2023	Anthrax	All goats	Vaccination	50,000/=

- (a) Name the farm record above.
Health record
- (b) Apart from Anthrax, mention any **one** other disease which is controlled by the method used on 03/11/2023.
rinder pest// Brucellosis// Mastitis//tuberculosis foot and mouth disease// East Coast Fever
- (c) Give any **two** reasons why keeping of such a record is important to farmers
Helps farmers to plan for the farm// Helps the farmer to get loans easily// Helps the farmers to make decisions easily// Helps the farmers to know the expenditures on treatment// Helps the farmers to know the losses and profits//For future reference.

43.(a) Identify the type of soil erosion common in hilly areas .

galley erosion

(b) State any **one** danger of soil erosion to the environment.

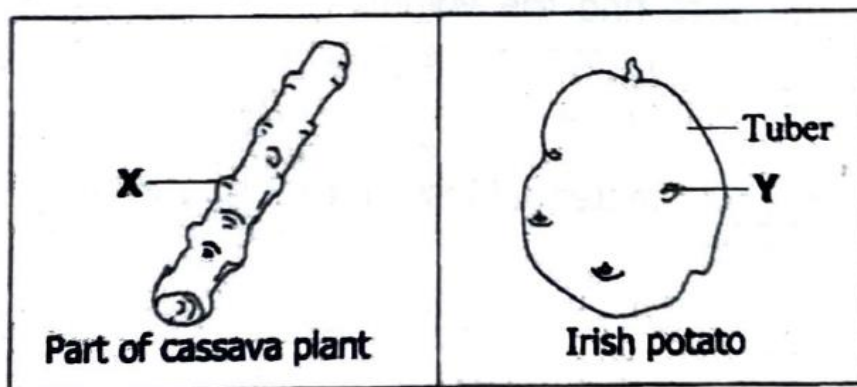
Leads to soil exhaustion/ Leads to loss of soil fertility

(d) Explain how deforestation causes soil erosion. **(02marks)**

Deforestation leaves the land bare and hence exposing it to agents of soil erosion// Deforestation involves cutting down trees which leaves the land bare and exposing it to agents of soil erosion.



44. The diagrams below show part of a cassava plant and an Irish potato that are used in propagation. Study and use them to answer the.



(a) Name the part of the cassava plant marked **X**.

Axillary bud // Node

(b) State the method of vegetative propagation where the part of a cassava plant shown above is used. .

Planting stem cuttings/ Use of stem cuttings

(c) In which **one** way is the function of part **X** of the cassava plant similar to that of part **Y** of the Irish potato?

Both part X of the cassava plant and part Y of the Irish potato develop into a new plant//Both develop into a new leaf/plant.

- (d) Give the importance of the tuber in the propagation of the Irish potato.

For supplying food to the developing bud .

- 45 (a) What is meant by the term vulnerable group of people?

Vulnerable group of people are people who are easily harmed and need special care and diet //Vulnerable group of people is a group of people who need special care and a balanced diet

- (b) Apart from the sick, name **one** other group of vulnerable people in a community.

Elderly//Convalescent//babies//pregnant women//breast feeding women .

- (c) State any **two** ways in which you can care for the sick in your community.

By escorting them for medical care//by bathing them//by feeding them on a to balanced diet// Helping them to promote proper personal hygiene// Reminding them take their medicines

46. Moses wanted to find the volume of an irregular object. He had the

following materials for the experiment; an irregular object, thread,

overflow can and water.

- (a) Name **one** material Moses forgot to include on the list of his materials .

Measuring cylinder

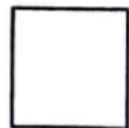
- (b) What is the use of the thread in the experiment?

To hold the irregular object/For immersing the irregular object in water/for lowering the irregular object in an overflow can

- (c) Describe how Moses will get the volume of the irregular object in

this experiment. **(02 marks)**

By pouring water in an overflow can and then lowering in the irregular object//The volume can be then read from the displaced water collected in a measuring cylinder.



47. (a) Identify any **one** body change in girls during adolescence.

Growth of breasts// Growth of hair around the sexual organs, anus and in the armpits// Rounding of the hips// Voice becomes soft// The face looks smooth// tender and

attractive// Menstruation starts//ovulation starts//

Thickening of the uterus walls//Enlargement of the vagina and the ovaries.

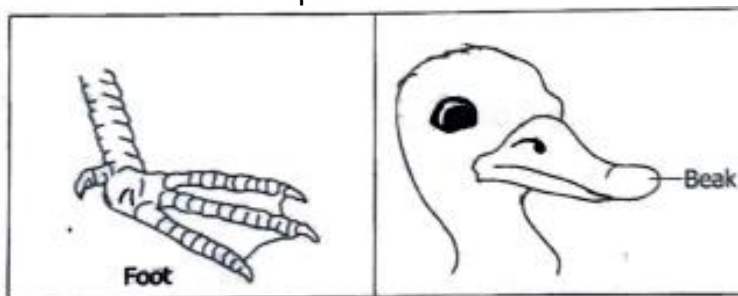
- (b) State any **two** ways in which school boys can help to prevent teenage pregnancies.

By abstaining from sex/By avoiding bad peer groups

- (c) State any **one** way of caring for the reproductive system in humans.

Bathing the reproductive system// Shaving the hair around the sexual organs// Washing the underparts regularly// Abstaining from sex when not married// Using condoms when having sex//Regular cleaning of the latrines before and after use//by performing physical exercise

48. The diagrams below are of a foot and a beak of a bird. Study and use them to answer the questions that follow.



- (a) Identify the group of birds with the type of foot and beak shown.

Swimming birds

- (b) How do the parts of the bird shown above help it live well in its environment?

(i) **Foot: It is webbed for paddling(swimming) in water.**

(ii) **Beak: It is spoon shaped for sieving food from water//It is flat and broad Shape for filtering food from water**

- (c) Give any **one** example of a domestic bird with such type of beak and foot.

Duck/goose

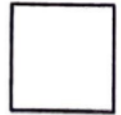
49. (a) Give any **one** way In which each of the following elements of Primary Health Care (PHC) is important in a community.

(i) **Food and nutrition: It helps to prevent malnutritional diseases//Its encourages people to feed well**

(ii) **Maternal and child health: It helps to reduce infant death//It reduces maternal death//It encourages pregnant women to go for antenatal care.**

(b) Identify any **two** ways of giving health education to a community.

**Through health fairs/Through music/through radios
//through talk shows on televisions/through drama//
through village health meetings/through school health
programs/through community workshops and seminars.**



50. (a) Apart from planting crops in rows, give another method of planting crops.

Broad casting method

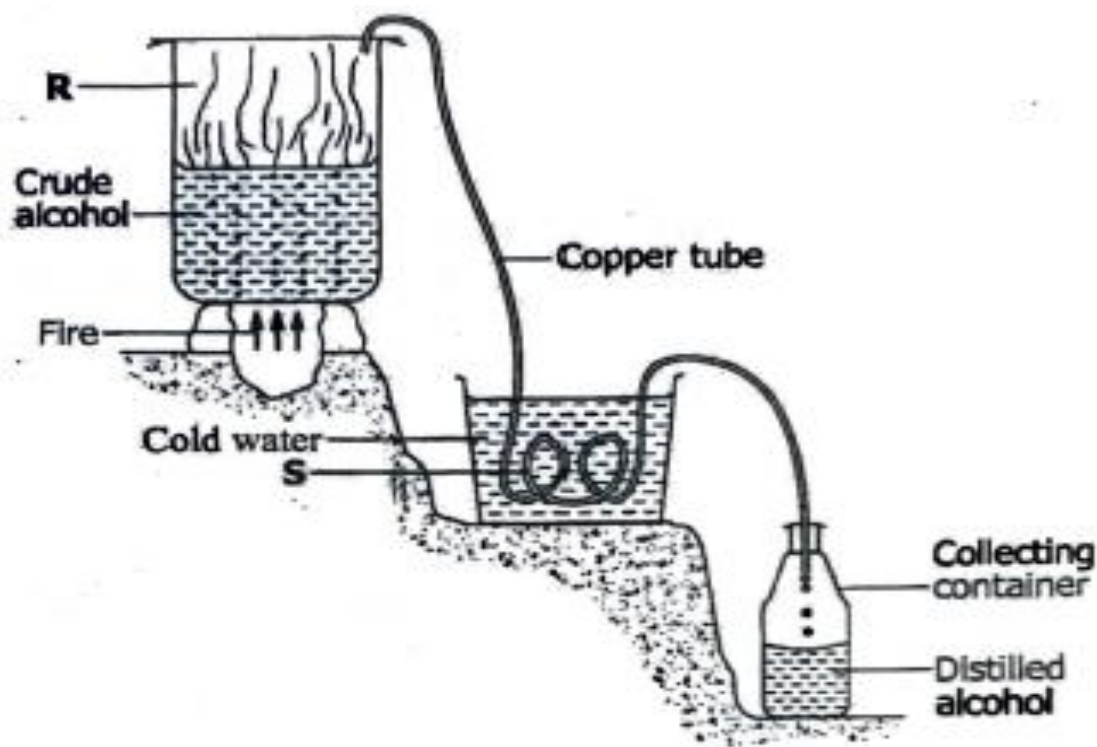
(b) Give any **two** advantages of planting maize in rows.

**It creates space for crops to grow well// It eases the
harvesting of crops//It eases the spraying of crops.**

(c) State any **one** way in which the use of chemicals on a farm can be dangerous to a crop farmer .

**Chemicals damage the lungs of a farmer/they can also cause
skin irritations/Chemicals lower the market of crops.**

51. The diagram below shows the distillation method of making alcohol. Study and use it to answer the questions that follow.



a) Identify the physical changes taking place;

(i) at part marked **R**. **Evaporation**

(ii) in part **S**. **Condensation.**

(b) Give **one** reason why the container with crude alcohol should be properly sealed.

To prevent the alcohol from evaporating//To prevent the escape of vapour//It maintains the purity of alcohol//It prevents contamination of alcohol.

(c) Give the function of the copper tube in the method shown above.

For transporting alcohol vapour to be condensed and condensed alcohol to the collecting container

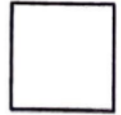
52. (a) State any **two** health problems that are common in overpopulated areas.

Spread of diseases// poor sanitation//poor water supply// inadequate food supply.

(b) Mention any **two** ways in which collecting information on human population helps to address health problems in a community.

Helps in proper provision of the health services//Helps in the proper planning for the people.

53. (a) Give any **two** ways in which plants support human life.



Plants provide food to people//plants provide oxygen to People//Plants provide wood fuel to people//Plants provide building materials to people.

(b) Mention any **two** ways in which humans can conserve plant life.

By irrigating plants// By pruning plants//By applying fertilizers in the gardens//By spraying them with pesticides// By weeding the gardens with plants

54. (a) Identify any **two** characteristics of the female anopheles mosquito

that makes it a good vector for malaria.

They feed on blood//They have Proboscis for sucking blood from people// They bite people//Their body fluids favour the multiplication of the malaria parasite.

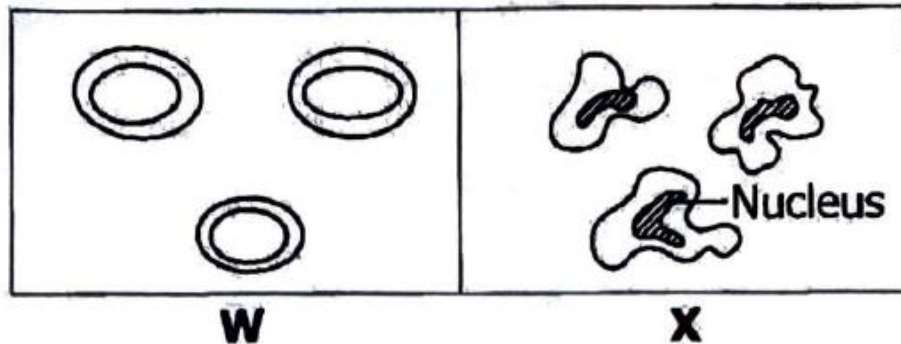
(b) How do the following methods help in controlling the spread of malaria?

(i) **Pouring oil on stagnant water: Kills the larvae of the anopheles mosquitoes//Suffocates the larvae of the anopheles mosquitoes**

(ii) **Sleeping under a mosquito net: Prevents mosquito bites**

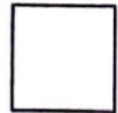
55. The diagrams below show the structure of different blood cells in the human body. Study and use them to answer the questions that

follow.



- (a) Name the blood cell marked X
White blood cells
- (b) Give the function of the blood cells marked:
For transporting oxygen in the body
To fight against disease causing germs.
- (c) Identify any **one** disease which destroys blood cells **W** .
Malaria// anaemia//sickle cell anae

END



*Complied by Examiner Nabuti Ivan(HOD SCI) and
Education Consultant Luyombo John*

**A product of The Bridge Educational
Services-Uganda**

***PUBLISHERS OF:** The bridge teachers guides,
learners workbooks, lesson note books, assessments,
holiday packages, past PLE revision workbooks, past
PLE revision books and all stationary work plus
equipments.*

***BES Uganda Tel:** +256751488579(WhatusApp) /
+256775790041*

***Email:** brigdeeducationserviceug@gmail.com*