



UGANDA NATIONAL EXAMINATIONS BOARD

PRIMARY LEAVING EXAMINATION

2022

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Random No.						Personal No.		

Candidate's Name:

Candidate's Signature:

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 work written in pencil 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: **"FOR EXAMINERS' USE ONLY"** and boxes inside the question paper.

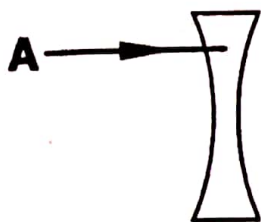
FOR EXAMINERS' USE ONLY		
QN. NO.	MARKS	EXR'S NO.
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
TOTAL		

SECTION A: 40 MARKS

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

1. Name the part of a flowering plant which grows into a side branch.
.....
2. State any **one** factor to be considered when selecting a site for keeping honey bees.
.....
3. Give any **one** use of proteins in the human body.
.....
4. Give any **one** way in which evaporation is important in the environment.
.....
5. Why is it advisable to chew food properly before swallowing it?
.....
6. State any **one** way in which Athlete's foot can be controlled among school children.
.....

The diagram below shows a light ray **A** onto a lens. Use it to answer questions **7** and **8**.



7. Name the type of lens in the diagram above.
.....
8. Complete the path of ray **A** as it passes through the lens.

9. Give any **one** role a School Health Club can play in the control of malaria in a community.

.....

10. Name the part of a human tooth that contains blood capillaries and nerve endings.

.....



11. State the reason why the volume of water in a container rises when a stone is lowered into it.

.....

12. How does cigarette smoking affect the human lungs?

.....

.....

13. State any **one** element of Primary Health Care (PHC) which is important in the prevention of COVID-19.

.....

14. Why are tomatoes grouped as annual crops?

.....

.....

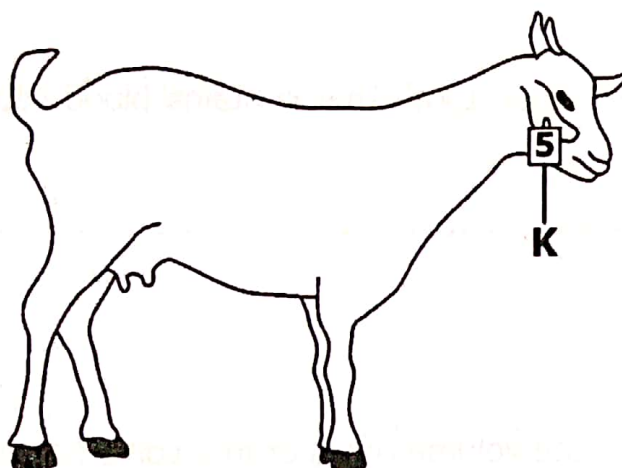
15. State any **one** way of conserving fossil fuels.

.....

16. Name the vector which spreads river blindness to people.

.....

The diagram below shows one of the management practices in goat rearing. Use it to answer questions **17** and **18**.



17. Name the management practice shown with letter **K**.

.....

18. How is the above practice important to a goat farmer?

.....

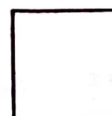
.....

19. Which type of weather favours proper harvesting of beans?

.....

20. Give any **one** way in which you can reduce chances of accidents when crossing a road.

.....



21. Name any **one** human body organ protected by the rib cage.

.....

22. Give any **one** condition that may make an electric bulb fail to produce light in a complete circuit.

.....

23. State any **one** way in which an adolescent can control bad odour that results from body changes.

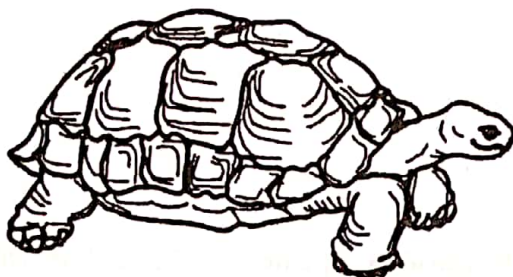
.....

.....

24. Mention any **one** way in which you can prevent some clothes from staining others during washing.

.....

Use the diagram of the animal below to answer questions **25** and **26**.



25. Identify the class of vertebrates to which the above animal belongs.

.....

26. How does the above animal protect itself?

.....

27. State any **one** way in which the spread of tuberculosis can be controlled.

.....

28. Mention any **one** way in which food may get contaminated after it has been prepared.

.....

29. Why does sound travel fastest in solids compared to other states of matter?

.....

.....

30. Apart from proper insulation, state any **one** other way of protecting children against electric shock at home.

.....



31. Give any **one** way in which regular physical exercises help to maintain the muscular-skeletal system healthy.

.....

32. Give **one** way in which moulds are similar to ferns.

.....

33. State **one** reason why ash is usually applied around the pit hole of a latrine.

.....

.....

34. Name **one** excretory product removed by the lungs.

.....

35. Write down any **one** activity that members in a School Science Club can do to conserve the environment.

.....

36. State any **one** way in which echoes can be reduced in a large hall.

.....

37. State **one** way in which water is important during seed germination.

.....

38. How does tapeworm infestation lead to malnutrition in humans?

.....

39. Give any **one** way in which drug poisoning can be prevented among children at home.

.....

40. Give any **one** effect of cloud cover in an area.

.....

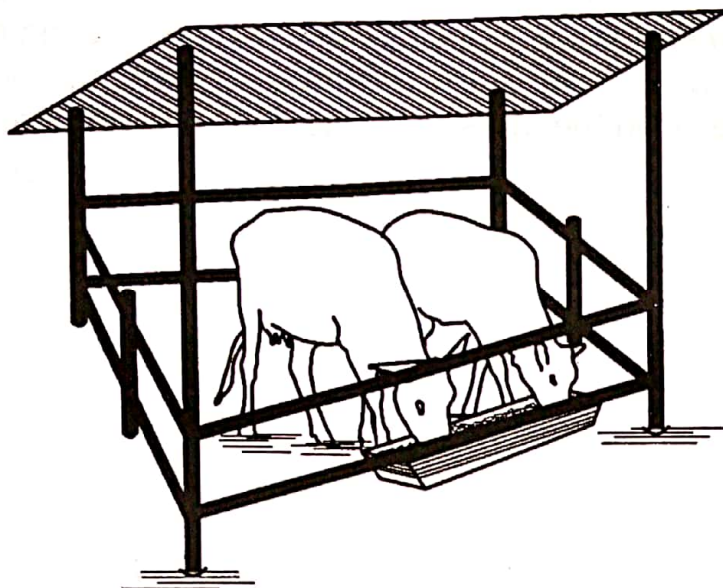


SECTION B: 60 MARKS

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

41. State the type of change that takes place when;
- (a) A knife rusts.
 - (b) Water freezes.
 - (c) A fruit ripens.
 - (d) Salt dissolves in water.
42. (a) Give the meaning of the following terms:
- (i) Sanitation.
.....
.....
 - (ii) Personal hygiene.
.....
.....
- (b) Identify any **two** activities children can do at school to promote good sanitation.
- (i)
 - (ii)

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



- (a) Name the cattle grazing system shown above.

.....

- (b) What type of natural manure can be got from the above system?

.....

- (c) Apart from easy collection of manure, state any **two** advantages of the above cattle grazing system.

- (i)

.....

- (ii)

.....



44. (a) To which class of levers does a see-saw belong?

.....

(b) Two pupils, Okello and Jjuuko sat on a see-saw. Okello who weighs 40 kg sat 2.5 metres away from the pivot on one side of the see-saw. Jjuuko sat 4 meters away from the pivot on the other side. Find the mass of Jjuuko if the see-saw was balanced.
(03 marks)



45. (a) Name the largest vein in the human body.

.....

(b) Name the type of blood that is transported by the pulmonary artery.

.....

(c) State **one** characteristic of arteries that enables them to carry blood at high pressure.

.....

(d) Give **one** way in which the structure of capillaries enables them to exchange body materials.

.....

46. (a) Name the group of worms to which the following belong;

(i) Liver flukes.

(ii) Hookworms.

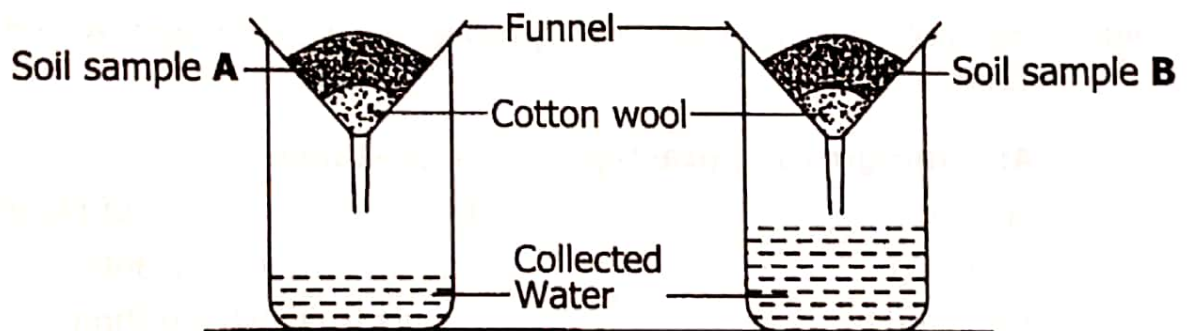
- (b) Apart from improving soil aeration, identify any other **two** ways in which earthworms are important in the soil.

(i)

(ii)



47. The diagram below shows an experiment carried out on two equal amounts of soil samples **A** and **B**. Equal amount of water was poured on the soil samples. The water that passed through the soil samples after ten minutes was collected in containers of the same size as shown. Study and use it to answer the questions that follow.



- (a) What property of soil was being studied in the experiment?

.....

- (b) State the function of the cotton wool in the experiment above.

.....

- (c) Given that the two soil samples were from sand and clay, which of the two samples was clay?

.....

- (d) Give any **one** reason for your answer in (c) above.

.....

.....

48. (a) State any **two** effects of chewing miraa (khat) to the human body.

(i)

(ii)

(b) Mention any **two** things a teenager can do to avoid the habit of chewing miraa (khat).

(i)

.....

(ii)

.....

49. The table below shows crop growing practices in part **A** and their importance in part **B**.

A: Crop growing practice	B: Importance
Staking	- Prevents overcrowding of plants
Mulching	- Removes unwanted plants
Thinning	- Prevents fruits from rotting
Weeding	- Conserves soil moisture

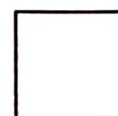
Match correctly the crop growing practices with their importance in the spaces provided below.

(i) Staking

(ii) Mulching

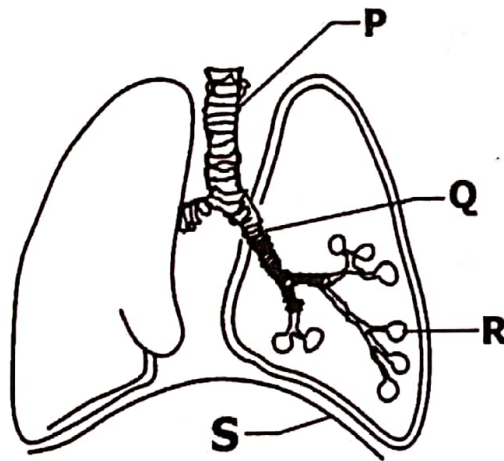
(iii) Thinning

(iv) Weeding



50. (a) Name the method of seed dispersal in;
- (i) Black jack.
 - (ii) Coconut.
- (b) Give any **two** ways in which seed dispersal is important to plants.
- (i)
.....
 - (ii)
.....

51. The diagram below is of a human respiratory system. Study the diagram and use it to answer the questions that follow.



- (a) Name the part marked **Q**.
.....
- (b) Which substance is part **P** made of?
.....
- (c) Give the function of the part marked **R**.
.....
- (d) What happens to part **S** during the process of breathing in?
.....

52. (a) Name the **two** states of matter through which heat travels by convection.

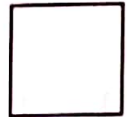
(i)

(ii)

(b) State any **two** ways in which heat transfer by convection is helpful in our daily life.

(i)

(ii)



53. (a) Give the meaning of the following terms:

(i) Agroforestry.

.....

.....

(ii) Mixed cropping.

.....

.....

(b) State any **two** characteristics of a tree suitable for agroforestry.

(i)

.....

(ii)

.....

54. You are provided with the following materials:

Salt, sugar, teaspoon, boiled water and clean containers. After washing your hands, write **four** other steps you will take to prepare salt sugar solution for treating dehydration at home.

(i)

.....

(ii)

.....

(iii)

.....

(iv)

.....

55. (a) Write down any **two** things that can be added to chicken feeds in order to increase the amount of calcium.

(i)

(ii)

(b) State any **two** practices a poultry farmer can do to layers to increase on egg production.

(i)

(ii)

