



UGANDA NATIONAL EXAMINATIONS BOARD
PRIMARY LEAVING EXAMINATION
2024

INTEGRATED SCIENCE
Time Allowed: 2 hours 15 minutes

PIE 22
SCIENCE

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 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 "**FOR EXAMINERS' USE ONLY**" and in the 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

Answer **all** questions in this section.
Questions **1** to **40** carry one mark each.

1. Name any **one** type of latrine.

.....

2. Give any **one** reason why it is dangerous to take shelter under tall trees during rain.

.....

.....

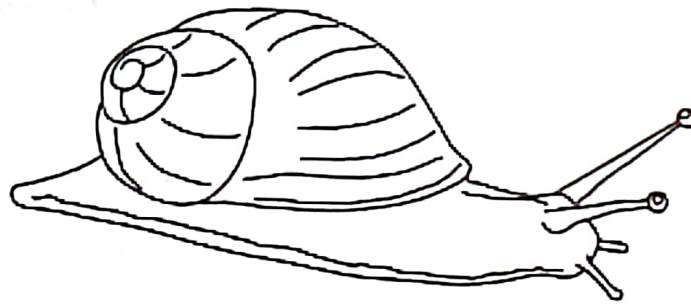
3. State any **one** function of the diaphragm during the process of breathing.

.....

4. Name any **one** agent of soil erosion.

.....

The diagram below shows an animal in the group of invertebrates. Use it to answer questions **5** and **6**.



5. Name the animal shown in the diagram.

.....

6. State the group of invertebrates to which the animal belongs.

.....

7. Mention any **one** way in which vegetables can be kept fresh for some time.

.....

8. State **one** way in which bacteria are useful in the formation of soil.

.....
.....

9. Give the reason why a person suffering from bilharzia develops anaemia.

.....
.....

10. Mention **one** way in which air circulation in a rabbit hutch can be improved.

.....



11. State the reason why the human skin develops goose pimples during cold weather.

.....
.....

12. Give any **one** way in which you can utilise empty plastic bottles at home.

.....

13. Mention **one** function of a bandage found in a first aid kit.

.....

14. State any **one** way in which fermentation is important in our daily life.

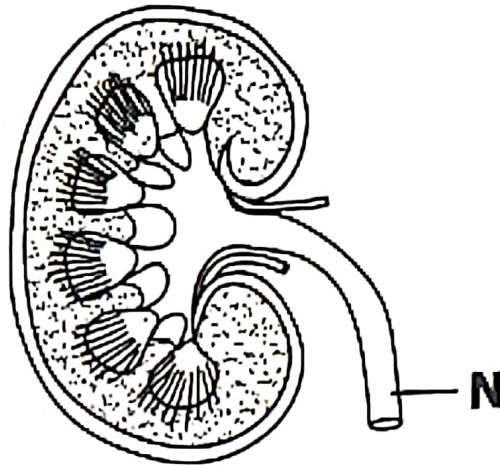
.....

15. State any **one** reason why a builder would prefer a pulley to an inclined plane when lifting sand from the ground to the top of a building.

.....

.....

The diagram below shows a human body organ. Use it to answer questions **16** and **17**.



16. Name the organ shown above.

.....

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

.....

18. Identify any **one** effect of pests and diseases on tuber crops.

.....

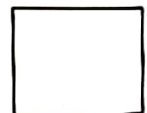
19. State any **one** way in which taking medicine without the instruction of a health worker can affect a family.

.....

20. Mention any **one** reason why harvesting of honey should be done during day time.

.....

.....



21. Name the disorder in the skeletal system where a bone moves away from its normal position at the joint.

.....

22. State the reason why a cubic unit of wool weighs less than a cubic unit of a stone.

.....
.....

23. State **one** way in which paddocking method of grazing cattle helps to break the life cycle of pests on a farm.

.....

24. Give **one** way in which rusting is important to the environment.

.....

25. Name the element of Primary Health Care which promotes the human body cleanliness.

.....

26. Mention any **one** activity a School Health Club can do to improve the health of people in school.

.....

27. State the property of air used in filling balloons.

.....

28. State any **one** way in which planting of trees alongside other crops improves the quality of soil.

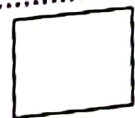
.....

29. Give **one** reason why we should regularly wash our hands with clean water and soap.

.....

30. Mention **one** way in which the antennae of insects are similar to the human skin in terms of function.

.....



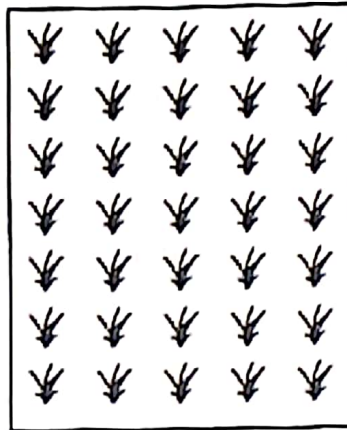
Turn Over

31. Give **one** reason why the vacuum in a thermos flask prevents heat loss by conduction and convection.

.....

.....

The diagram below shows a method of planting crops. Use it to answer questions **32** and **33**.



32. Identify the method of planting crops shown above.

.....

33. State any **one** advantage of the method of planting crops shown in the diagram above.

.....

.....

34. Give any **one** example of an emotional change in adolescents.

.....

35. Name the immunisable viral disease which is spread due to poor sanitation.

.....

36. State the reason why a ray of light bends as it passes through a glass block.

.....
.....

37. State any **one** way of conserving water as a resource in the environment.

.....

38. Mention **one** reason why you are encouraged to brush the tongue as well when cleaning the teeth.

.....
.....

39. Mention any **one** way in which electric shocks can be prevented in a home.

.....
.....

40. Give any **one** way in which crop farmers can keep seeds viable for a long time.

.....
.....



SECTION B: 60 MARKS

*Answer all questions in this section.
Questions 41 to 55 carry four marks each.*

41. (a) Name the class of food that helps in the repair of body cells.

.....

(b) Apart from contamination of food, mention any **two** other challenges that people who buy food from markets get.

(i)

(ii)

(c) State any **one** way of controlling food contamination in a market.

.....

42. (a) Name the germ that causes cholera.

.....

(b) Explain why cholera is common in heavily populated communities.
(02 marks)

.....

.....

.....

(c) Apart from proper use of latrines, mention any **one** other way of controlling the spread of cholera in the communities in (b) above.

.....

43. (a) Name the correct garden tool for transplanting seedlings.

.....

(b) State the reason why evening time is the best for transplanting seedlings.

.....

.....

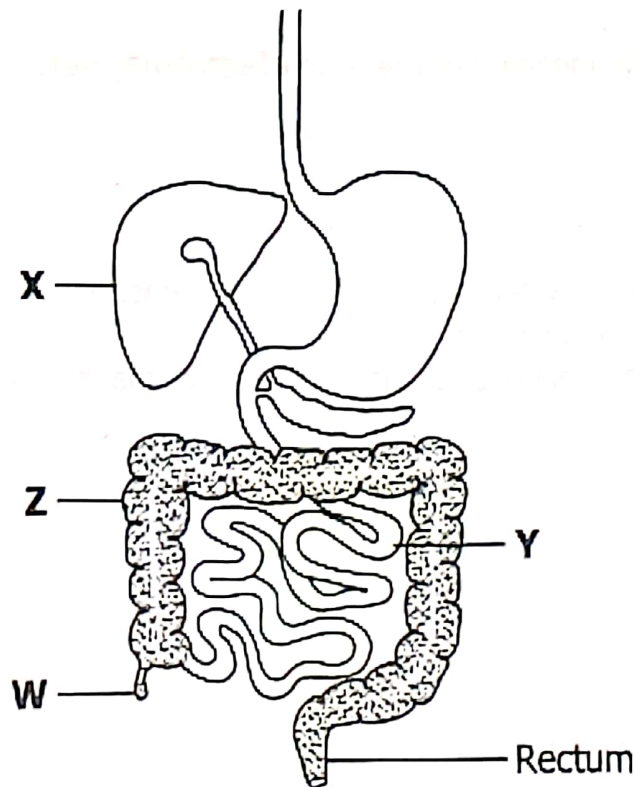
(c) Mention any **two** advantages of mulching a garden after transplanting.

(i)

(ii)



44. The diagram below shows part of the human digestive system. Use it to answer the questions that follow.



(a) Name the parts labelled;

(i) **X**

(ii) **W**

(b) State any **one** function of the following parts:

(i) **Y**

(ii) **Z**

45. The table below shows some of the steps followed in the cleaning of clothes and the purpose of each step. Complete the table correctly.

Step	Purpose
.....	Separating cloths according to washing needs.
Soaking
.....	Removing dirty soapy water from the clothes.
Ironing

46. (a) Give the meaning of the term **electromagnet**.

.....

.....

(b) You are provided with the following items: Iron nail, copper wire, a dry cell and some pins.
Describe how you can use the items to make a magnet.

(03 marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....



47. (a) Mention any **two** materials that can be used in a digester to produce biogas.

(i)

(ii)

(b) Give a reason why a biogas digester should be tightly sealed.

.....

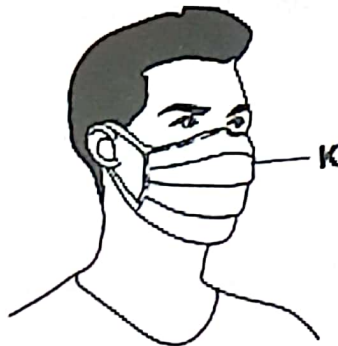
.....

(c) State any **one** advantage of using biogas.

.....

.....

48. The diagram below shows a person wearing a protective item made of cloth. Use it to answer the following questions.



(a) Name the protective item labelled **K**.

.....

(b) Identify any **two** diseases that can be prevented by the use of the protective item **K**.

(i)

(ii)

(c) Mention any **one** good practice of using the protective item **K**.

.....

Turn Over

49. (a) Mention **one** example of musical instruments in each of the groups below:

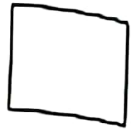
(i) String Instruments.....

(ii) Percussion Instruments.....

(b) Name any **two** methods of storing sound.

(i)

(ii)



50. (a) State the name given to insects that live and work together.

.....

(b) Give any **one** way in which insects are useful to people.

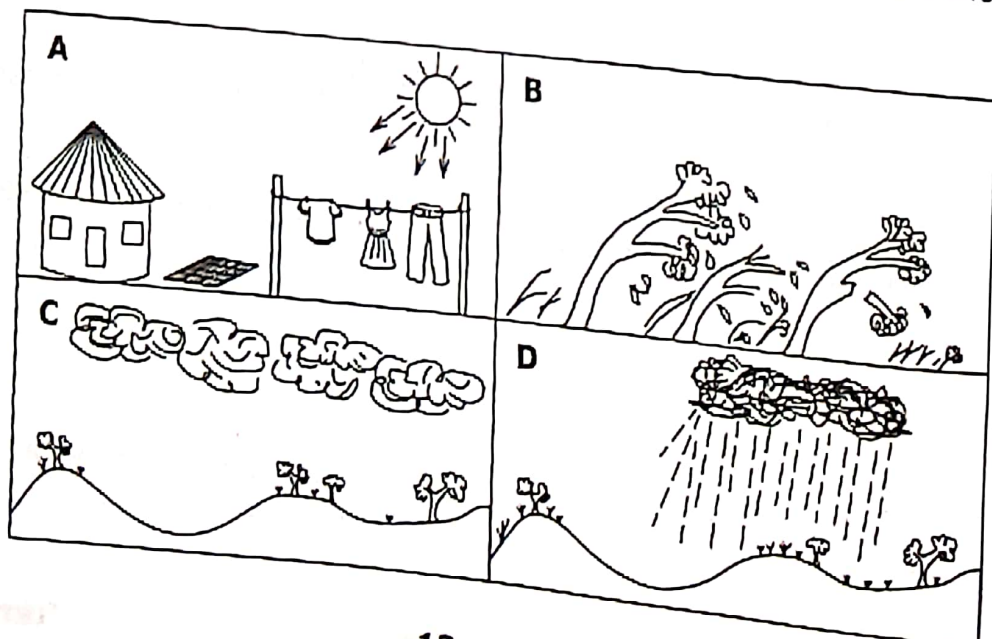
.....

(c) State any **two** human activities that are dangerous to insects in the environment.

(i)

(ii)

51. The diagram below shows types of weather. Study it and answer the questions that follow.



- (a) Name the type of weather marked **C**.
.....
- (b) State **one** way in which the type of weather in **A** helps in formation of the type of weather in **D**.
.....
- (c) Give **one** way in which people protect themselves from the effects of the type of weather in **B**.
.....
- (d) State any **one** way in which too much of the type of weather in **A** is dangerous to the environment.
.....

52. (a) State the meaning of the term **vaccine**.

-
.....
- (b) Mention the way in which polio vaccine is administered.
.....
- (c) State the reason why vaccines should be stored in a cool place.
.....
.....
- (d) Identify any **one** way you can support immunization programmes in your community.
.....



53. (a) Name the physical change which leads to the formation of the following:

(i) Ice

(ii) Rainfall

(b) State any **two** effects of physical changes caused by soil erosion in the environment.

(i)

(ii)

54. (a) Name the **two** muscles found in the human arm.

(i)

(ii)

(b) State any **one** function of muscles in the human body.

.....

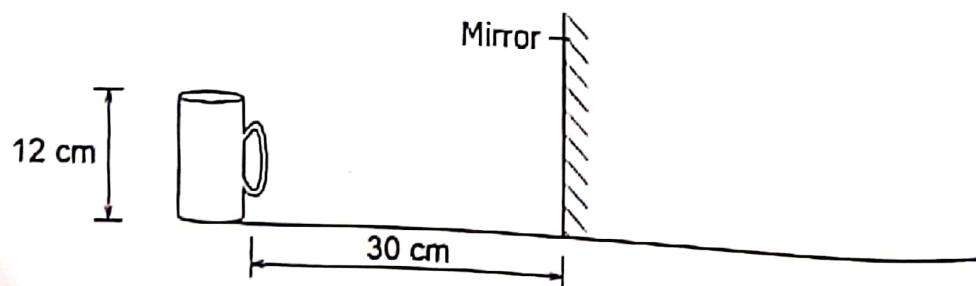
.....

(c) State the importance of maintaining correct posture in humans.

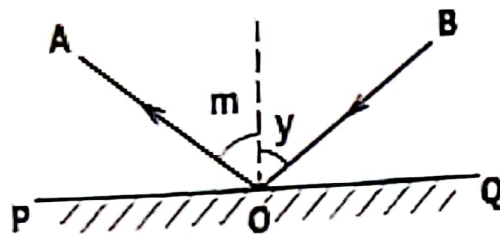
.....

.....

55. (a) The diagram below shows a cup 12 cm high placed 30 cm in front of a plane mirror. Draw the image of the cup. (02 marks)



(b) The diagram below shows a reflection on a plane mirror **PQ**.



(i) Name ray **A**.

.....

(ii) State the relationship between angles **m** and **y**.

.....

