



Dr. Bbosa Science

UGANDA NATIONAL EXAMINATION BOARD
PRIMARY LEAVING EXAMINATION



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Science 1994

Time allowed: 2 hours 15 minutes

Index No:

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Candidate's Name.....

Candidate's signature.....

District Name.....

Read the following instructions carefully

1. This paper has two sections **A** and **B**. Section **A** has 50 questions and section **B** has 5 questions. The paper has 15 pages following altogether.
2. Answer all questions. All answers to both sections A and B must be **written** in the spaces provided.
3. All answers must be written using a blue or black ball-point pen or ink. **Any** work written in pencil other than graphs, pictures and diagrams will **not** be marked.
4. Unnecessary change of work may lead to loss of marks.
5. Any handwriting that cannot easily be read may lead to loss to marks.
6. Do not fill anything in the boxes indicated:
7. "For examiners'. Use only and inside the question paper

FOR EXAMINERS USE ONLY		
Qn. No	MARKS	EXR'S NO.
1-10		
11-20		
21-30		
31-40		
51		
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54		
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Total		

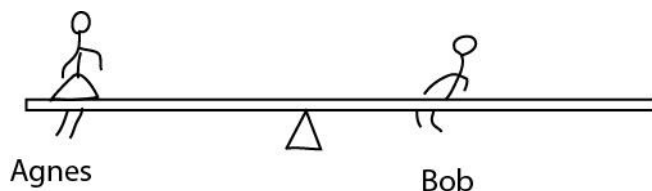
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1. How does uncontrolled burning affect our environment?
Lead to soil erosion
Leads to pollution of environment
Leads to destruction of trees
2. State one method by which breast milk protects newly born baby.
It contains antibodies against diseases.
3. In the space provided below, draw a simple diagram of a molar tooth.



4. State one way in which earthworms are important to a farmer.
Aerate the soil
Die and form humus
Improve soil texture
5. How does sun rays help in the formation of rains?
Heat up water and cause evaporation which condense to form rain.
6. What takes place in the lungs when one breathes in and out?
Gaseous exchange
7. Bbosa is suffering from a headache. The nurse wishes to measure Bbosa's body temperature. Why does she put the thermometer under Bbosa arm Pit and not his head?
Because in the arm pit, the bulb is fully covered to give accurate results.
8. How does government control the spread of cattle disease when it breaks out in an area?
By use of quarantine method.
9. How does the skin of a person maintain its body temperature on a hot day?
It forms sweat which when evaporates cools the body
10. Why is it not necessary for a VIP latrine to have a lid for the hole?
To allow air flow freely through the latrine.
11. Why is it not good to pour paraffin into a pit latrine?
It suffocates maggots that decompose feces.
12. A 14-year-old child who is usually well behaved suddenly becomes rude to the parents. State one possible change in the child responsible for such a behavior.
Adolescence
Peer pressure
Drug abuse
13. What is the advantage of family planning to a mother?
Prevents unwanted pregnancy
Leads to child spacing.
Allows the uterus to repair before the next pregnancy
14. Why would the control of AIDs be easier than that of malaria?
It is easier to abstain without cost than preventing mosquito bites

15. Why does milk left in the open becomes sour after some time?
It acquires bacteria leading to fermentation
16. A child is found to be dehydrated. What is the possible cause of dehydration.
Diarrhea
Vomiting
17. What causes anemia?
Lack of enough iron in blood
18. How does smoke from fire in a room reach other areas in the same room?
By diffusion
19. A block of wood of volume 24cm^3 weigh 36grams. What is its density?
 $\text{Density} = \frac{\text{mass}}{\text{Volume}} = \frac{36}{24} = 1.5\text{g/cm}^3$
20. A female fish lay eggs in water. How are these eggs fertilized?
They are fertilized externally by sperms of male fish
21. What type of change takes place when a candle wax melts?
Physical change
22. Pregnant women are advised to receive immunization against tetanus. What is the importance of this immunization to unborn baby?
Protects the child against tetanus at birth.
23. State any First Aid you would give to a person who is bleeding from a deep cut on the leg?
Clean the wound and tie a cloth around it to stop bleeding.
24. Bob and Agnes are sitting, balanced, on a seesaw as shown in the diagram below.



How does the diagram show that Bob is heavier?

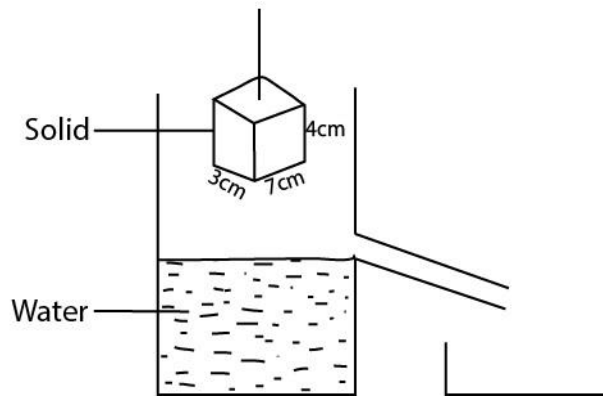
Bob balances Agnes who sits further from the fulcrum

25. Why does a heart of a person who is running beat faster than normal?
In order to supply enough oxygen and food nutrients to the muscles.
26. State one advantage of crop rotation.
Controls pests in the garden.
Maintains soil fertility.
27. What is the difference in the movement between a ball and socket joint and a hinge joint?
Ball and socket joint move in all directions while a hinge joint moves in one plane only.
28. Why should materials made of iron be covered with paint?
To prevent them from rusting.

29. Fish, reptile and birds are vertebrates that lay eggs. State one other characteristic which is common to them.

They have scales on their bodies

The diagram below shows an experiment used to find the volume of a regular solid block. Use it to answer questions 30, 31, and 32.



30. What is the volume of the block?

$$\begin{aligned}\text{Volume} &= L \times W \times H \\ &= 3 \times 7 \times 4 \\ &= 84\text{cm}^3.\end{aligned}$$

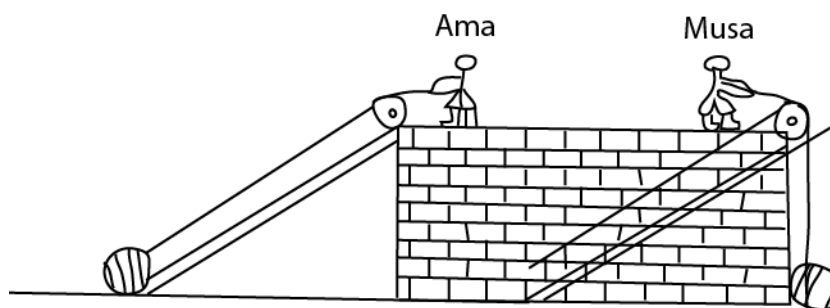
31. If the solid block is lowered into the overflow can, what volume of water will be displaced?

The volume equal to volume of the solid = 84cm^3 .

32. How would you confirm your answer in question 31 above?

By measuring the volume of water displaced using a measuring cylinder.

The diagram below shows two boys. Musa and Juma pulling pieces of wood of equal weight up the wall. Use it to answer questions 33 and 34.



33. Which boy uses less force to pull wood?

Ama

34. Explain your answer to question 33 above.

Ama has a higher mechanical advantage hence work is made easier by using lesser effort.

35. Why is resting important for the health of a person?

Enables the brain to rest for proper function

36. Bbosa is sitting on a chair inside a room. Both feet are bare. His left foot is resting on a bare cemented floor. The right foot is resting on a mat. Why would Bbosa's left foot feel colder than the right foot?

The mat is an insulator prevents heat loss from the right foot.

37. Why is smoking of tobacco harmful to the body?

Causes lung cancer

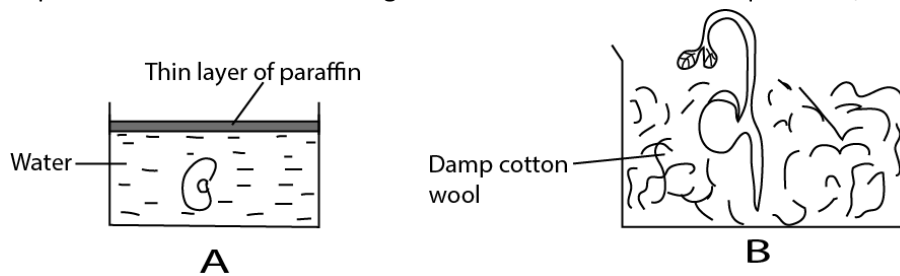
Causes pneumonia

38. What is the purpose of marriage?

Produce children

Provide protection and company

Student was finding out the conditions for germination of beans to take place. She set up the experiment as shown in the diagram below. Use it to answer questions, 39 and 40



39. Why did the seed A not germinate?

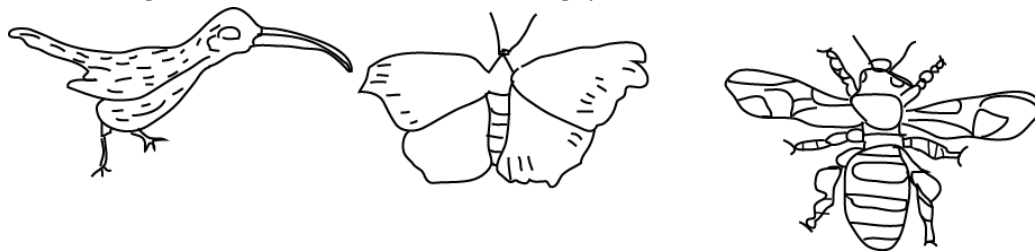
It lacked oxygen

40. What is the purpose of the wet cotton wool in B?

To provide water and allow oxygen needed for germination.

SECTION B

41. Use the diagram below to answer the following questions



- (a) In which ways do these animals have similar for

- (i) Feeding

The feed on liquid food such as nectar

- (ii) Pollination

As they are sucking nectar they carry pollen grain

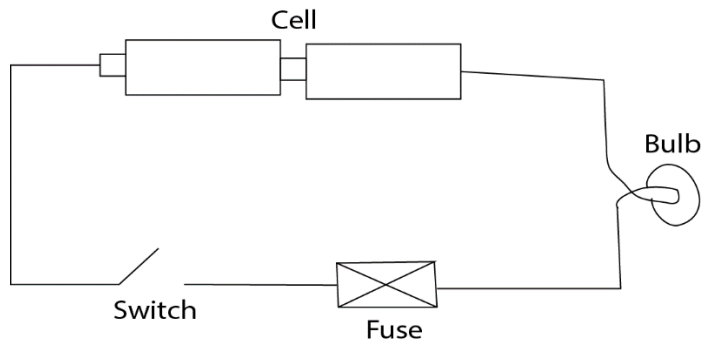
- (iii) Movement

They have wings for flight

- (b) How does one of the animals differ from others in the life history?

The bird lay eggs that hatch into chicks (to stages) the rest undergo complete metamorphosis.

42. In the diagram below, when the switch was closed, the bulb lit.



(a) How can you increase the brightness of light in the bulb?

By using newer dry cells

(b) After a short time, the switch was still on, the light in the bulb went off. State three possible causes for the light going off.

(i) **The fuse could have broken the circuit due to high voltage**

(ii) **The bulb blew**

(iii) **The cell could be used up**

43. (a) A farmer who practices mixed cropping has the following crops to plant: beans, cassava, ground nuts and potatoes.

(i) Which two crops would be advisable for the farmer to plant together.

Beans and potatoes

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

Bean roots contain bacteria that fix nitrogen for the potatoes.

(iii) The farmer uses a garden for planting maize crop only for three consecutive years (planting season). During the harvest in the third year, he noticed a drop in maize yield. Suggest a reason why the yield dropped.

- **The nutrients were used up**

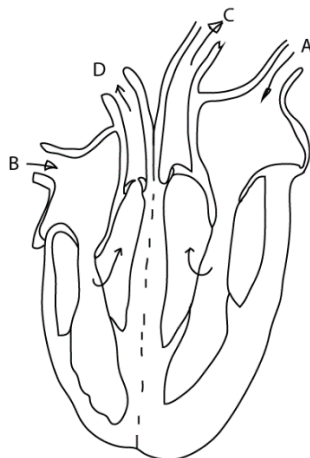
- **The pests had accumulated**

(iv) How can the farmer improve his maize yield in the same garden without using fertilizers?

- Adding manure

- Practice mixed cropping with legumes

44. The diagram below is of a human heart. Use it to answer the questions which follow.



(a) What is the function of the valves in the heart?

Prevent backflow of blood in the heart

(b) What is the difference between the blood which enters the heart through A and that through B?

Blood through A is oxygenated while blood through B is deoxygenated

(c) After leaving the heart at C and D where does the blood go?

C: to other parts of the body

D: to the lungs

45. In the table below, some of the diseases are given below with their symptoms and prevention/controls. Study it and answer the missing information.

Name of disease	symptoms	Prevention/control
Sleeping sickness	Loss of body weight, drowsiness, swelling in the Joints	Clear bushes Spraying tsetse fly Use tsetse fly traps
Common cols (flu)	Headache Running nose	Isolation, avoid infected people
Measles	Rash on the body, high fever, cough, red eyes, sore in mouth, diarrhea and vomiting	Isolation of infected person Immunization
Trachoma	Mild redness and itching of the eyes, pus in eyes after sleep, scarring	Washing of eyes, avoid sharing articles with sick person, e.g. basin, towel, medical treatment

46. (a) Why should water not be used to put out fire from petrol which is burning?

- Water contain oxygen that supports burning
- Petrol float on water and continue to burn.

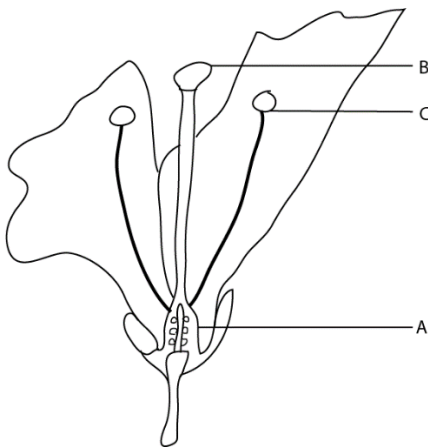
(c) Suggest two ways by which fire from petrol burning can be put out.

Using carbon dioxide fire extinguisher

Covering with blanket

Pouring sand

47. The diagram below is of a flower. Use it to answer the questions that follow.



(a) What does the part labelled A become after fertilization?

Fruit

(b) What is the function of the parts labelled B and C?

B receives pollen grains

C produces pollen grain

(c) Of what value are flowers to man?

Flowers are used for decoration

Flowers are sources of income

Flowers are give as gifts

For study purpose

48. When a drum is hit, you hear sound.

(a) How does the eardrum help you to hear sound?

It vibrates sending signals to the inner ear.

(b) There is wax in the outer ear. What is the function of wax?

To trap dust and foreign matter.

(c) What is the effect of too much wax in one's ear?

Blocks the ear canal leading loss of hearing

49. (a) State two factors which should be taken into account when selecting site for building a house.

Be near water source

Be near social service

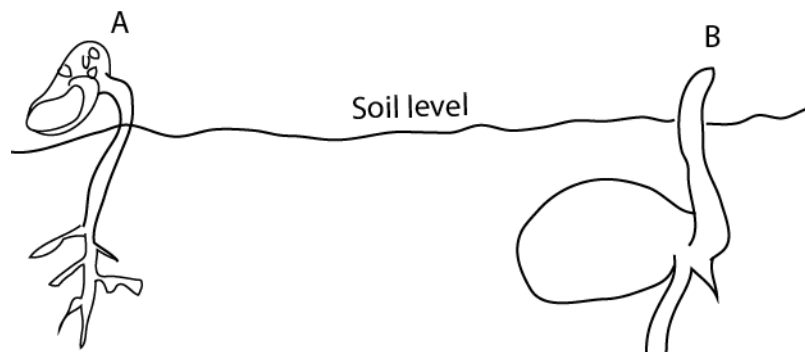
There should be good drainage

It should be accessible by road

(c) How does a well-built house contribute to the health of a family?

- Has enough room to accommodate members to reduce spread of infectious disease
- Is well ventilated to allow in good air and let out bad air
- It is protected from vectors to prevent spread of diseases.

50. The diagram below shows how seeds change into young plants. Use it to answer the questions which follow.



(a) What are the main differences between the type of germination shown in A and that in B.

A undergoes epigeal germination while B undergoes hypogeal germination.

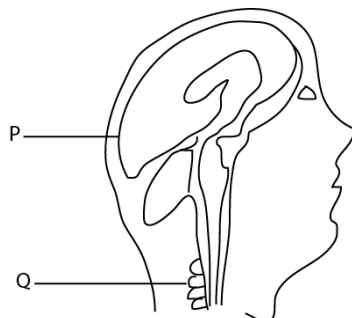
(b) Which of the two types of germination is common in monocotyledonous plants?

B

(c) In what way does the location of the food store in A differ from that of B?

In A food is located in the cotyledons while in B it is located in endosperm.

51. Use the diagram below to answer the questions which follow.



(a) What name is given to the part labelled P

Cerebrum

(b) Give the function of the part marked Q.

To protect the spinal cord.

- (c) Name two sense organs shown in the diagram above, by which someone can tell that there is something burning?

Nose

Eye

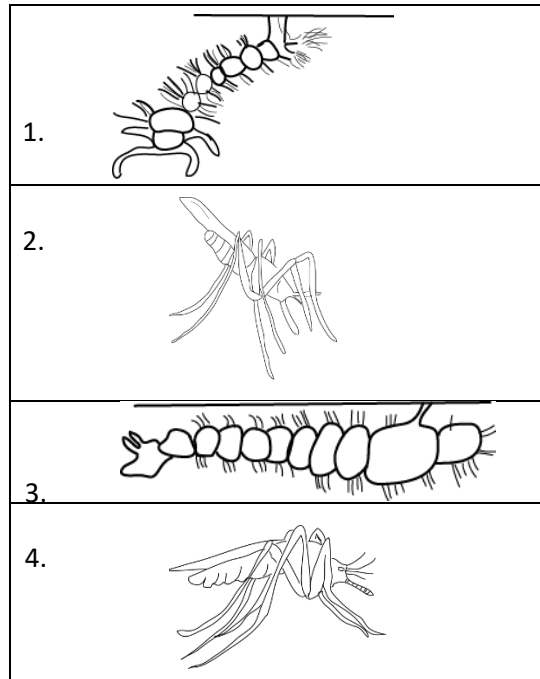
52. List A below gives two types of mosquitoes. The drawings in B give the larva and adult stage of mosquitoes. Write the correct number of the drawings in B against the correct mosquito in List A. Each drawing in B can be used once or more than once or not used at all.

A

Anopheles mosquito **2,3**

Culex mosquito **1,4**

B



53. Nakato harvested her maize crop and dried it. She put the maize in a sack and stored it on the floor, in the corner of the bed room. Akello also harvested and dried her maize crop. Then she hung the maize cob above the fireplace in the kitchen.

- (a) Explain why Akello would have better maize grains to plant next season

Akello's maize is well dried and disinfected by smoke.

- (b) Give two ways in which Nakato can improve on the storage method.

Spread the maize grain to dry

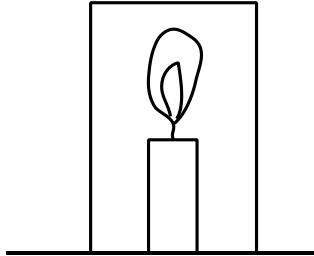
Keep the maize off the floor

54. (a) What shows that air is matter?

Air has weight

Air occupies space

(b) A candle is lit and placed inside a container and sealed as shown in the diagram below.



(i) Why does the candle continue burning for some time inside the sealed container?

Presence of oxygen in the container

(ii) Give a reason why the candle light goes off after some time.

Oxygen is used up

55. State four reasons why physical exercise are good for the body.

- **Increase body immunity**
- **Help to reduce stress**
- **Improves digestion**
- **Shape the body.**

END