



Dr. Bbosa Science

UGANDA NATIONAL EXAMINATION BOARD  
PRIMARY LEAVING EXAMINATION

Science 2013

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

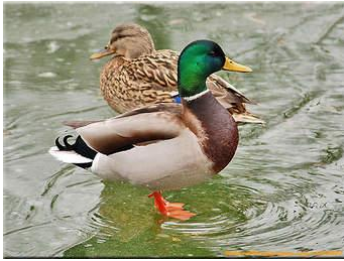
1. This paper has two sections **A** and **B**. Section **A** has 50 questions and section **B** has 5 questions. The paper has 15 pages following altogether.
2. Answer all questions. All answers to both sections A and B must be **written** in the spaces provided.
3. All answers must be written using 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<br>USE ONLY |       |              |
|---------------------------|-------|--------------|
| No                        | MARKS | EXR'S<br>NO. |
| 1-10                      |       |              |
| 11-20                     |       |              |
| 21-30                     |       |              |
| 31-40                     |       |              |
| 51                        |       |              |
| 52                        |       |              |
| 53                        |       |              |
| 54                        |       |              |
| 55                        |       |              |
| Total                     |       |              |

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1. Give any one example of a swimming bird.

Duck,



Goose



Penguin



2. Name the animal product used in leather industry.

Skin

3. State any one property of matter.

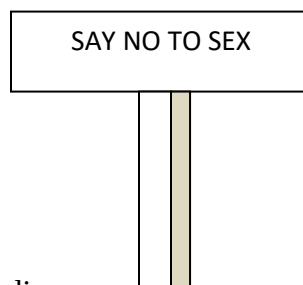
- It occupies space
- It has weight

4. Name the part of the human eye that works like the film in a camera.

Retina

5. In which way is the message in the sign post below helpful to school children?

Image



- to avoid sexually transmitted diseases
- to avoid early pregnancy
- to avoid sexual harassment

6. Give any way in which a single fixed pulley is used in a school.

For digging pit latrine

For lifting building material

.....

7. Name the body organ which helps a person to know whether there is enough sugar in tea or not

Tongue



8. Give any one advantage of pruning tress.

- eases weeding
- reduce competition for light
- Reduces spread of diseases
- for better yield

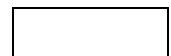
9. Which method of heat transfer helps farmers to dry their harvested crops?

Radiation

10. How does a fish benefit from its slippery body?

Easily escape from the grip of its enemy

It reduces friction while moving

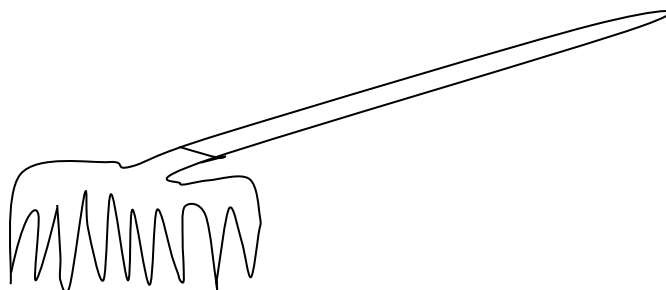


11. In which way does the use of biogas conserve the environment?

Reduces cutting down trees that absorb carbon dioxide

Reduced use of petroleum products

The diagram below shows a garden tool. Use it to answer questions 12 and 13



12. Name the garden tool above.

Rake

13. How is the garden tool above important to farmers?

For collecting rubbish

For levelling soil in a nursery bed

14. Which deficiency disease is caused by lack of vitamin d in children `s diet?

Rickets



15. Why is the water obtained through filtration not necessarily safe for drinking?

It contain germs

16. What plant system does the plumule make when it grows?

Into a shoot system

17. How does leaching reduce soil fertility?

Causes nutrients to sink deeper in the soil where they cannot be reached by root.

18. Why is it a devisable to leave the pit of a VIP latrine open?

To allow fresh air drives out bad smell

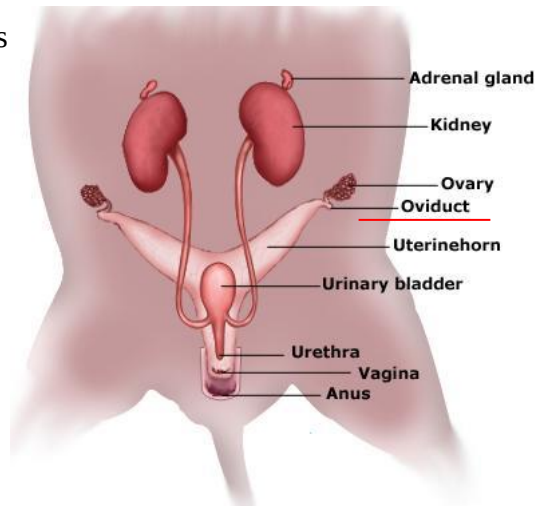
To allow flies to enter

19. Name the cattle disease whose sign is a swollen and painful udder.

Mastitis

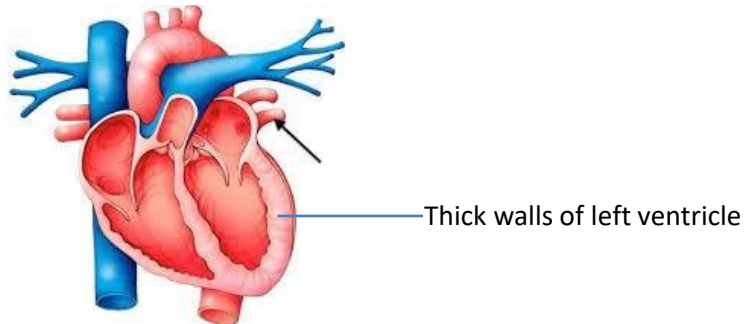
20. In which part of the female reproductive system does fertilization take place?

Oviduct or fallopian tubules



21. Why is the left side of the heart able to pump blood to most body parts?

It is thick and muscular to generate enough pressure



22. State any one way in which trees are able to reduce air pollution.

- absorb carbon dioxide
- Trap dust

23. In the space provided below, draw a lens used to correct short sightless.



24. How is a safety pin in a first –Aid kit important?



Safety pin removes foreign particle from the body and to fasten bandages.

25. In which type of change are the properties of the substance formed permanently different from those of the original one?

**Chemical change**

26. How is the function of stomata in a leaf similar to that of gills in a fish?

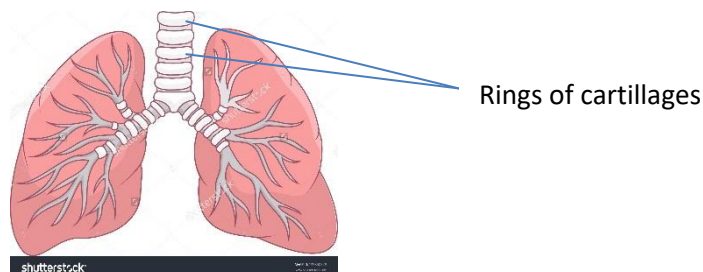
**They are used for gaseous exchange**

27. Which components of soil is used by plants to make their food?

**Water is a raw material for photosynthesis**

28. Which structures enable the trachea to remain open all the time?

Cartilaginous rings



29. Four bar magnets marked 1, 2, 3 and 4 were placed next to each other as shown below.  
They attracted each other.

|   |   |     |
|---|---|-----|
| N | 1 | S   |
|   |   | N   |
| 2 |   | S   |
|   | 4 | N X |

Name the pole of magnet 4 marked with letter X

North pole

30. Apart from brushing, how else can dental carries be prevented?

By rising mouth after eating

By going for regular medical check up

By avoiding sugary food

31. State any one way in which friction in moving parts of a machine can be reduced.

- By oiling
- By greasing
- by using roller
- By using ball bearings

32. Give any one way in which yeast is useful to people.

- for baking bread
- for brewing alcohols
- it is a source of vitamin Be

33. Apart from making food, mention one other use of leaves to plants.

- For gaseous exchange
- For transpiration which remove excess water from the plant and also cools it.
- For vegetative reproduction



34. State any one characteristic of the images formed by plane mirrors.

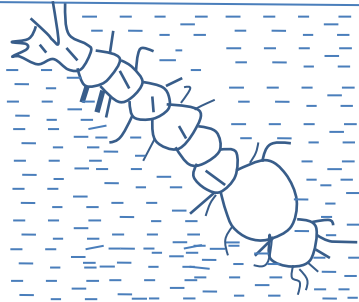
- Same size as the object
- Laterally inverted
- Equal distance from the mirror as the object
- Virtual
- upright



35. Why do the people installing electricity wear rubber gloves?

To avoid electric shock

The diagram below is of a mosquito larva .use it to answer questions 36 and 37



36. Name the mosquito which develops from such a larva.

Culex mosquito



37. What disease does the mosquito you have named above transmits to human beings?

Elephantiasis

yellow fever





38. How is the propagation of Irish potatoes different from that of sweet potatoes?

Irish potatoes are propagated by stem tuber while sweet potatoes by stem cutting



39. Apart from running windmills, give one other way wind is used as an energy resource.

For drying clothes,



flying kites



for winnowing



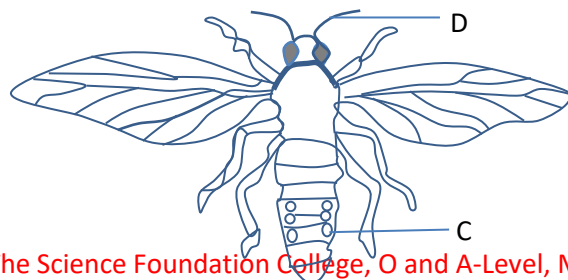
40. How do the silvery walls of a vacuum flask reduce heat loss?

- Reduce heat loss by radiation
- Reflect heat back to the food

### SECTION B: 60 MARKS

*Question 41 to 55 carry four mark each*

41. The diagram below shows an insect. Use it to answer the question that follow.



(a) Name the parts marked C and D

(i) C = spiracle

(ii) D = antenna

(b) State the function of the part marked D

1. Used for feeling
2. Detect danger
3. For smelling
4. For hearing

(c) Why would the insect above die when the whole of its abdomen is dipped in oil?

5. Oil blocks the spiracles and cut off oxygen

42 (a) Apart from the lack of conditions necessary for germination, give any two other factors that can make a seed fail to germinate.

- (i) immaturity of embryo
- (ii) hard impervious cuticle
- (iii) loss of viability

(b) Write down any two ways farmers can control pests in the garden without using chemicals

- (i) use biological enemies of the pest.
- (ii) by burning infected crops
- (iii) by crop rotation
- (iv) by timely weeding

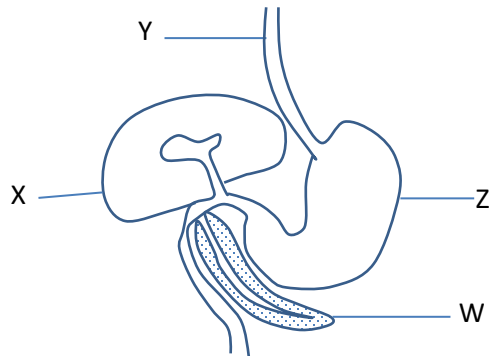
43(a) Give any two advantages of modern beehive.

- (i) gives clean honey
- (ii) does not kill bees when honey is harvested.
- (iii) portable

(b) write down two things a bee-keeper should consider before a salting up beehives.

- (i) source of water
- (ii) far from the road, school or market

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



(a) Name the parts marked Y and W

(i) Y - esophagus

(ii) W - pancreas

(b) State the functions of the parts marked Z

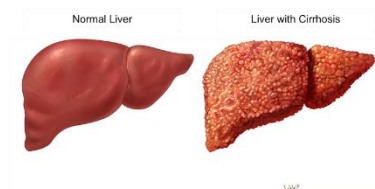
- pounds food
- produces enzymes for digestion of proteins
- store food
- produces hydrochloric acid that kill germs

(c ) Give any one disease that affects the parts marked X

Liver cancer



cirrhosis



45. Match the diseases in list **A** with the system and symptoms in the **B**

**A**

Polio

Measles

Tetanus

Diphtheria

**B**

swollen neck

stiffness of muscle

paralyzed tissues

skin rash

(a)Polio: paralyzed tissue



(b)Measles: skin rash



(c)Tetanus: stiffness of neck



(d)Diphtheria: swollen neck



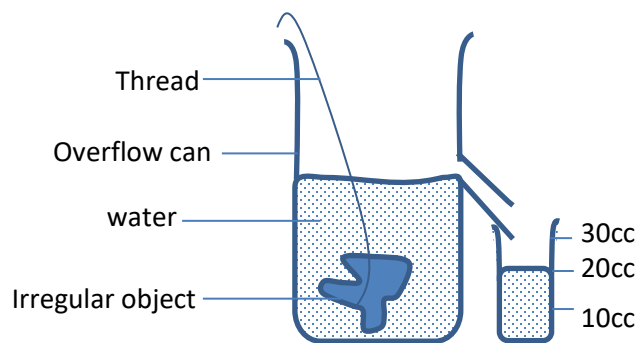
46. (a) Give any one two ways which drug dependence can affect an individual

- (i) Self-neglect
- (ii) neglect of the job
- (iii) death
- (iv) loss sleep

(b) State two ways in which an individual can void drug dependence

- (i) by joining good peer groups
- (ii) by trusting god
- (iv) by going for guidance and counselling
- (v) by avoiding bad peer groups

47. An irregular object was lowered into an overflow can **A** containing water. The water it displaced was collected in container **B** as shown below.



(a) What is the volume of the irregular object?

20cm<sup>3</sup>

(b) Calculate the density of the irregular object if its mass is 60 g

$$\text{Density} = \frac{\text{mass}}{\text{volume}} = \frac{60}{20} = 3 \text{ g cm}^{-3}$$

48. The table below shows lists of animals. Use it to answer the questions that follow

| P    | Q         | R      |
|------|-----------|--------|
| Toad | Chameleon | rat    |
| Newt | Snake     | Monkey |
| frog | lizard    | Cow    |

(a) Which characteristic is common to all the animals in the table?

- they have a backbone
- They have endo skeleton

(b) How is the reproductive in the animals in list P similar to those in list Q?

They lay eggs

(c) Which list has warm blooded animals?

List R

(d) Why would you place a tortoise in list Q?

It is a reptile

49. (a) Name any one organism that makes fresh meat go bad.

- (i) Bacteria
- (ii) Fungi
- (iii) mould

(b) State any three ways of preventing fresh meat from going bad

- (i) boiling
- (ii) frying
- (iii) refrigeration
- (iv) salting
- (v) smoking

50(a) Name the human body organ where each of the following takes place:

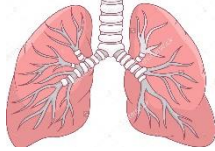
(i) Filtration of blood

Kidney



(ii) Blood gets oxygen while carbon dioxide is removed.

Lungs



(b) Give the use of the following components of blood in the body

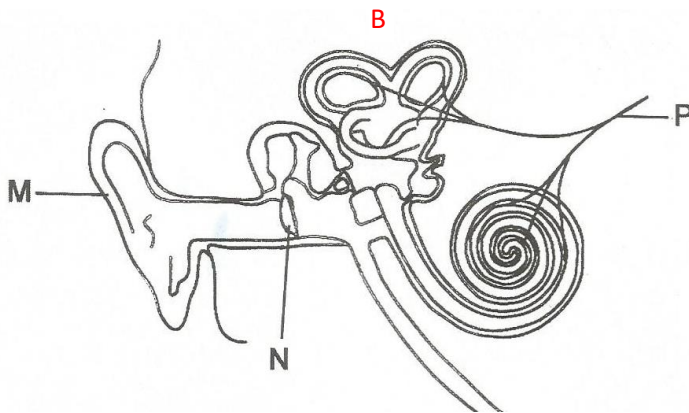
(i) White blood cells

Fight germs

(ii) Blood platelets

Cause blood clotting

5.1 Study the diagram of the human ear below and use it to answer the questions that follow.



(a) Name the parts marked M and N

(i) M: pinna

(ii) N: eardrum

(b) Give the function of the part marked **P**.

Send impulses to the brain

Use letter B to show the part of the ear responsible for balancing the body

52(a) Name any two water –borne diseases

Polio, cholera, dysentery, hepatitis, typhoid, bilharzia

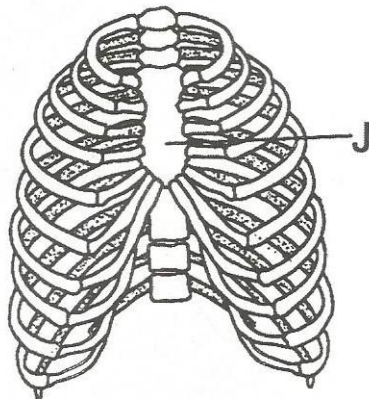
(b) In which two ways can water –borne diseases be prevented in the community?

(i) by boiling water for drinking

(ii) by proper disposal of wastes

(iii) by proper hygiene

53. The diagram below shows part of the human skeleton. Use it to answer the questions that follow



(a) Name the part marked **J**

Sternum

(b) State any two delicate body organs protected by the part of the skeleton shown

(i) heart

(ii) lungs

(c) How is the part of the human skeleton shown above used during breathing out?

Reduced the volume of the chest by moving inwards and down



54(a) Write down any two activities that can be done by an individual to promote personal hygiene

- (i) brushing teeth
- (ii) bathing daily
- (iii) cutting off finger nail
- (iv) mopping house
- (v) sweeping the compound

(b) State two ways community members can promote sanitation in their area.

- (i) protecting spring wells
- (ii) by proper disposal of wastes
- (iii) Digging pit latrines

55. Arrange the part of an electric circuit below by drawing to show a complete circuit.

Image

