

# UGANDA NATIONAL EXAMINATION BOARD PRIMARY LEAVING EXAMINATION



Science 2013

Science 2013											
Inday No.	-	Time allowed: 2hours 15 minutes									
Index No:											
			I							1	
Constitution No.											
Candidate's 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.

Candidate's signature.....

District Name.....

- 2. Answer all questions. All answers to both sections A and B must be written in the spaces provided.
- 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				
No	MARKS	EXR'S 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. Sate 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

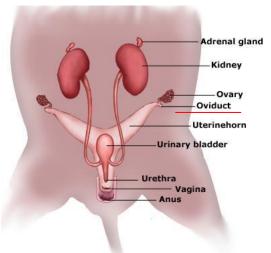
To allow flies to enter

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

Mastitis

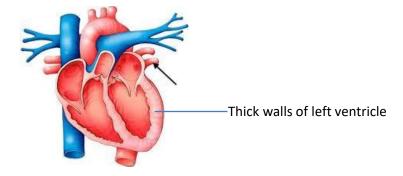
20. In which part of the female reproductive system does fertilization take place?

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?

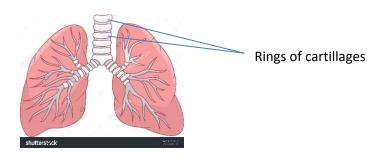
#### They are used for gaseous exchange

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

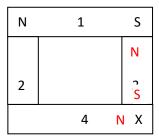
## Water is a raw material for photosynthesis

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.



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



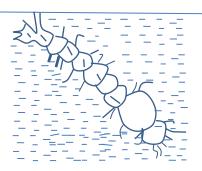
- 34. State any one characteristic of the images formed by plane mirrors.
  - Same size as the object
  - Laterally inverted
  - Equal distance from the mirror as the object
  - Virtual
  - upright



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?

yellow fever

Elephantiasis



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.



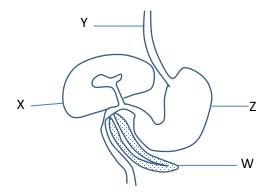
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(i) C = spiracle					
(ii) D = antenna					
(b) State the function of the part marked D					
<ol> <li>Used for feeling</li> <li>Detect danger</li> <li>For smelling</li> <li>For hearing</li> </ol>					
(c) Why would the insect above die when the whole of its abdomen is dipped in oil?					
5. Oil blocks the spiracles and cut of 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.					
<ul><li>(i) immaturity of embryo</li><li>(ii) hard impervious cuticle</li><li>(iii) loss of viability</li></ul>					
(b) Write down any two ways farmers can control pests in the garden without using chemicals					
<ul> <li>(i) use biological enemies of the pest.</li> <li>(ii) by burning infected crops</li> <li>(iii) by crop rotation</li> <li>(iv) by timely weeding</li> </ul>					
43(a) Give any two advantages of modern beehive.					
<ul> <li>(i) gives clean honey</li> <li>(ii) does not kill bees when honey is harvested.</li> <li>(iii) portable</li> </ul>					
(b) write down two things a bee-keeper should consider before a salting up beehives.					
(i) source of water					

(a) Name the parts marked C and D

(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

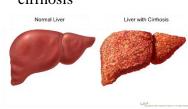


- (a) Name the parts marked Y and W
- (i) Y esophagus
- (ii) W pancreas
- (b) State the functions of the parts marked Z
- pounds food
- produces enzymes for digestion of proteins
- store food
- produces hydrochloric acid that kill germs
- (c) Give any one disease that affects the parts marked X

#### Liver cancer



#### cirrhosis



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

A B

Polio swollen neck

Measles stiffness of muscle

Tetanus paralyzed tissues

Diphtheria skin rash

# (a)Polio: paralyzed tissue



(b)Measles: skin rush



(c)Tetanus: stiffness of neck



(d)Diphtheria: swollen neck



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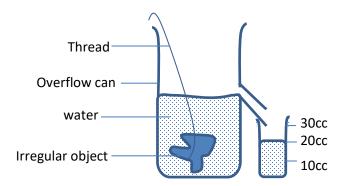
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46. (a) Give any one two ways which drug dependence can affect an individual

- (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 pear groups
- (ii) by trusting god
- (iv) by going for guidance and counselling
- (v) by avoiding bad pear groups
- 47. An irregular object was lowered into an overflow can **A** containing water. he water it displaced was collected in container **B** as shown below.



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

 $20 \text{cm}^3$ 

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

Density = 
$$\frac{mass}{volume} = \frac{60}{20} = 3gcm^{-3}$$

48. The table below shows lists of animals. Use it to answer the question s

## 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?

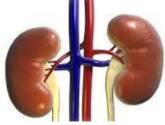
It is a reptile

- 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



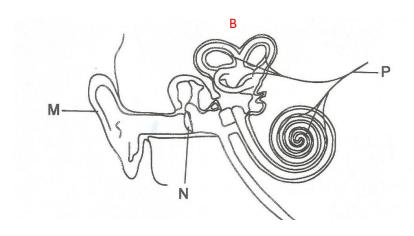
- (b) Give the use of the following components of blood in the body
- (i) White blood cells

Fight germs

(ii) Blood platelets

Cause blood clotting

5.1 Study the diagram of the f 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**.

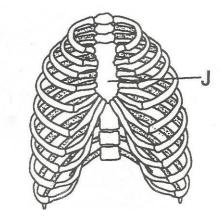
Send impulses to the brain

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, hepatis, dysentery, typhoid, bilharzia

- (b) In which two ways can water –borne diseases be preventing in the community?
  - (i) by boiling water for drinking
  - (ii) by proper disposal of wastes
  - (iii) by proper hygiene
- 53. The diagram m 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 organ 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

