



250784

# SCIENCE

THE KENYA NATIONAL EXAMINATIONS COUNCIL

# KCPE 2012

Time: 1 hour 40 minutes

## INSTRUCTIONS TO CANDIDATES (Please read these instructions carefully)

1. You have been given this question booklet and a separate answer sheet. The question booklet contains 50 questions.
2. Do any necessary rough work in this booklet.
3. When you have chosen your answer, mark it on the **ANSWER SHEET**, not in this question booklet.

### HOW TO USE THE ANSWER SHEET

4. Use an ordinary pencil only.
5. Make sure that you have written on the answer sheet:

**YOUR INDEX NUMBER**  
**YOUR NAME**  
**NAME OF YOUR SCHOOL**

**DAY 2**  
 Wednesday – 14/11/2012  
 8.00 am – 9.40 am

6. By drawing a **dark line** inside the correct numbered boxes, mark your full Index Number (i.e. School Code Number and the three-figure Candidate's Number) in the grid near the top of the answer sheet.
7. Do not make any marks outside the boxes.
8. Keep the sheet as clean as possible and do not fold it.
9. For each of the questions 1 – 50, four answers are given. The answers are lettered A, B, C and D. In each case only **ONE** of the four answers is correct. Choose the correct answer.
10. On the answer sheet, show the correct answer by drawing a **dark line** inside the box in which the letter you have chosen is written.

### Example

#### In the Question Booklet.

4. Which one of the following is a storage pest?  
 A. White Ant.  
 B. Weaver bird.  
 C. Cutworm.  
 D. Aphid.

The correct answer is A.

#### On the answer sheet:

4 [B] [C] [D] 14 [A] [B] [C] [D] 24 [A] [B] [C] [D] 34 [A] [B] [C] [D] 44 [A] [B] [C] [D]

In the set of boxes numbered 4, the box with the letter A printed in it is marked.

11. Your **dark line** **MUST** be within the box.
12. For each question **ONLY ONE** box is to be marked in each set of four boxes.



This Question Paper consists of 7 printed pages.

© The Kenya National Examinations Council, 2012

TURN OVER

1. Which of the following is a tuber crop?  
 A. Onion.  
 B. Carrot.  
 C. Pineapple.  
 D. Cabbage.

2. A beam balance is used for  
 A. measuring volume of objects  
 B. comparing mass of different objects  
 C. measuring height of objects  
 D. comparing size of different objects.

3. In which of the following groups of activities is friction **NOT** required?  
 A. Writing and erasing.  
 B. Skating and braking.  
 C. Flying and swimming.  
 D. Walking and riding.

4. Animals provide plants with  
 A. support and carbon dioxide  
 B. manure and oxygen  
 C. carbon dioxide and pollination  
 D. pollination and oxygen.

5. Which of the following statements about blood vessels in the human body is **CORRECT**?  
 A. All veins carry de-oxygenated blood.  
 B. Blood pressure in arteries is higher than in veins.  
 C. Arteries have valves that control flow of blood.  
 D. Arteries have thinner walls than those of veins.

6. Which of the following **CORRECTLY** represents the path taken by food from the oesophagus?  
 A. Stomach → small intestines → large intestines → rectum → anus.  
 B. Small intestines → large intestines → stomach → rectum → anus.  
 C. Stomach → large intestines → small intestines → rectum → anus.  
 D. Large intestines → stomach → small intestines → rectum → anus.

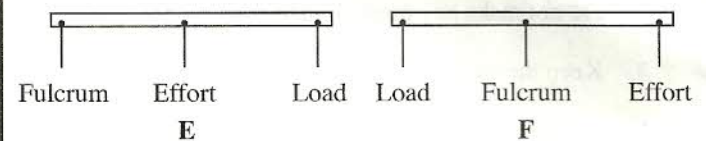
7. Which of the following types of human teeth is **CORRECTLY** matched to its function?

Teeth	Function
A. Incisors	Tearing and cutting.
B. Canines	Tearing and crushing.
C. Premolars	Cutting and grinding.
D. Molars	Crushing and grinding.

8. A plant which has deep and widely spread root system is **LIKELY** to have  
 A. broad leaves  
 B. many leaves  
 C. succulent stems  
 D. weak stems.

9. Which of the following groups of crops consists of cereals **ONLY**?  
 A. Peas, beans and green grams.  
 B. Maize, rice and sorghum.  
 C. Millet, cow peas and maize.  
 D. Green grams, sorghum and rice.

10. The diagrams below represent two levers **E** and **F** with different positions of load, effort and fulcrum.



The levers represented by **E** and **F** are

<b>E</b>	<b>F</b>
A. spade	crawbar
B. wheelbarrow	claw hammer
C. claw hammer	crawbar
D. spade	wheelbarrow

11. Which of the following pairs of plants is **CORRECTLY** matched with the type of root system?

<b>Tap root</b>	<b>Fibrous root</b>
A. Grass	Wheat
B. Tomato	Black jack
C. Coconut	Acacia
D. Kale	Onion



12. The following are statements about how different simple machines make work easier.

- (i) *Making the slope gentle.*
- (ii) *Reducing the effort applied.*
- (iii) *Changing direction of the force applied.*
- (iv) *Reducing friction.*

Which of the statements apply to a single fixed pulley?

- A. (i) and (iv).
- B. (i) and (ii).
- C. (ii) and (iii).
- D. (iii) and (iv).

13. Which of the following groups of animals consists **ONLY** of invertebrates?

- A. Crab, newt and snail.
- B. Centipede, snail and spider.
- C. Newt, centipede and slug.
- D. Slug, frog and crab.

14. Which of the following statements is **TRUE**?

- A. Fish have constant body temperature.
- B. Birds have varying body temperature.
- C. Young ones of amphibians live on land.
- D. Reptiles breathe through the lungs.

15. Which of the following are examples of herbivores, carnivores and omnivores?

Herbivore	Carnivore	Omnivore
A. Hippopotamus	Crocodile	Chimpanzee.
B. Zebra	Lion	Vulture.
C. Gorilla	Leopard	Hyena.
D. Buffalo	Baboon	Rhino.

16. Which of the following pairs consists **only** of animals with scales?

- A. Toad and duck.
- B. Turtle and salamander.
- C. Turtle and duck.
- D. Salamander and toad.

17. The following are some practices that help prevent the spread of water borne diseases.

- (i) *Using toilets for urination.*
- (ii) *Washing fruits before eating them.*
- (iii) *Washing hands before eating.*
- (iv) *Wearing gumboots when walking in stagnant water.*

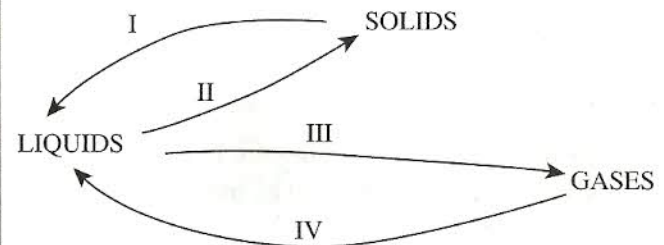
Which practices will help control the spread of bilharzia?

- A. (i) and (ii)
- B. (i) and (iv)
- C. (ii) and (iii)
- D. (iii) and (iv)

18. Transfer of heat by convection takes place in

- A. gases and liquids
- B. solids and liquids
- C. solids and vacuum
- D. gases and vacuum.

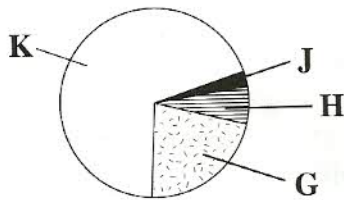
19. The diagram below represents the processes I, II, III and IV that are involved in change of states of matter.



Which of the following **CORRECTLY** represents the processes?

- | I               | II          | III          | IV            |
|-----------------|-------------|--------------|---------------|
| A. Melting      | Freezing    | Evaporation  | Condensation. |
| B. Condensation | Evaporation | Melting      | Freezing.     |
| C. Evaporation  | Melting     | Freezing     | Condensation. |
| D. Melting      | Freezing    | Condensation | Evaporation.  |

20. The pie chart below shows proportions of **G**, **H**, **J** and **K** that represent the components of air.



Which proportion **CORRECTLY** represents a gas used in fire extinguishers and a gas used in an electric tube?

	used in fire extinguisher	used in electric tube
A.	<b>K</b>	<b>H</b>
B.	<b>G</b>	<b>K</b>
C.	<b>J</b>	<b>H</b>
D.	<b>G</b>	<b>J</b>

21. Which of the following factors makes wax to float on water?

- A. Shape of material.
- B. Type of material.
- C. Size of material.
- D. Mass of material.

22. In which of the following are both materials **CORRECTLY** grouped as magnetic and non-magnetic?

Magnetic	Non-magnet
A. Copper	Zinc.
B. Zinc	Steel.
C. Aluminium	Copper.
D. Steel	Aluminium.

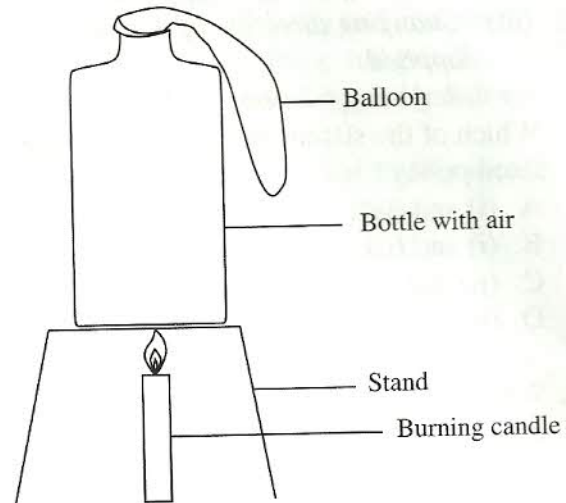
23. The following are activities carried out to investigate the effect of heat on a liquid.

- (i) *Placing the bottle on a source of heat.*
- (ii) *Filling the bottle with coloured water.*
- (iii) *Fixing a straw on the cork.*
- (iv) *Closing the bottle tightly with the cork.*

Which one of the following is the **CORRECT ORDER** of the activities?

- A. (ii), (iii), (iv), (i).
- B. (iii), (iv), (ii), (i).
- C. (ii), (i), (iii), (iv).
- D. (iii), (ii), (i), (iv).

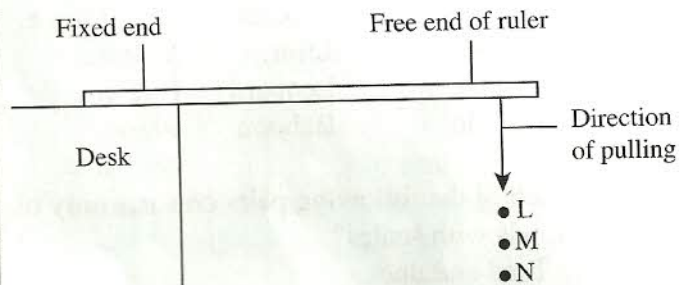
24. The diagram below shows a set-up that can be used to investigate the effect of heat on matter.



The effect investigated is

- A. gases change state when heated
- B. solids expand when heated
- C. gases expand when heated
- D. solids change state when heated.

25. The diagram below represents a set-up in which a ruler is fixed to a desk and its free end pulled to positions **L**, **M**, and **N**. At each position the free end is released to produce sound.



The set-up can be used to investigate

- A. special sounds
- B. loud and soft sound
- C. direction of sound
- D. noise pollution.

