

KCPE NOVEMBER 2023 PREDICTION MASTER CYCLE 9

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KENYA NATIONAL PREDICTION TESTS
KCPE



516006

SCIENCE

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
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.

5. Which one of the following components of blood is involved in clotting after an injury?
A. White blood cells.
B. Red blood cells.
C. Plasma.
D. Platelets.

The correct answer is D.

On the answer sheet:

5. (A) (B) (C) (D) **15.** (A) (B) (C) (D) **25.** (A) (B) (C) (D) **35.** (A) (B) (C) (D) **45.** (A) (B) (C) (D)

In the set of boxes numbered **5**, the box with the letter **D** 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.



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This question paper consists of 8 printed pages.

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- Which one of the following is a function of incisor and canine teeth respectively?
 - Tearing and cutting
 - Tearing and grinding
 - Cutting and tearing
 - Cutting and biting

- Which component of blood is CORRECTLY matched?

Component	Function
A. Plasma	Transport oxygen
B. Red blood cells	Transport carbon dioxide
C. White blood cells	Help the body to cool
D. Platelets	Help the blood to clot

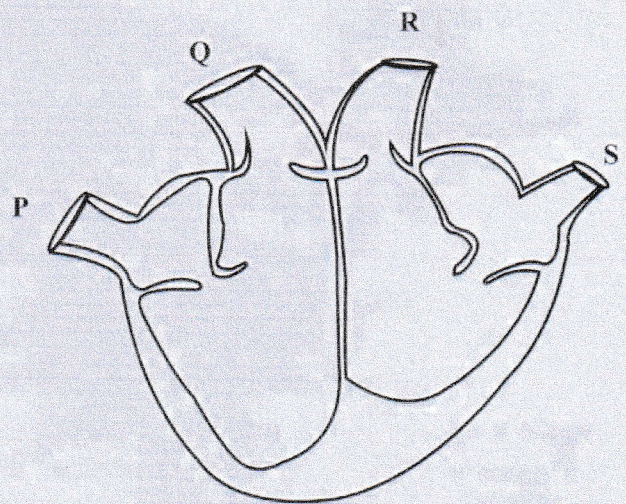
- The following are nutritional deficiency diseases EXCEPT
 - rickets
 - Kwashiorkor
 - Malaria
 - Marasmus
- The following processes are involved in the change of state of matter. Which one is NOT?
 - Condensation
 - Melting
 - Evaporation
 - Dissolving
- Standard 7 pupils were modelling the solar system. The activities they carried out were:
 - Putting name tag
 - Making circles on the manila paper
 - Modelling the planets
 - Pasting the manila paper on the soft board

v) *Sticking the planets on the circles*

Arrange the above activities in order from the first to the last?

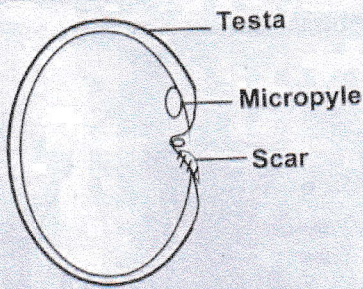
- (iii), (ii), (iv), (v), (i)
- (iii), (iv), (ii), (v), (i)
- (ii), (iii), (iv), (i), (v)
- (iv), (iii), (v), (ii), (i)

The diagram below represents the heart of a mammal

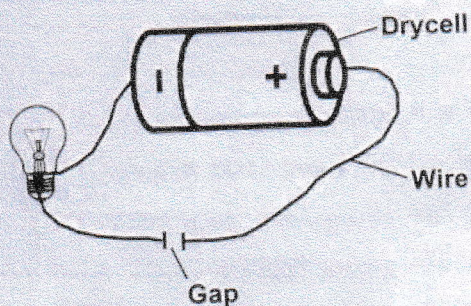


- Which one of the labelling blood vessels P, Q, R and S take blood to the lungs?
 - P
 - Q
 - R
 - S
- The stages below shows a child development in the womb after fertilization. Which one is well arranged from the first to the last?
 - Zygote → Foetus → Embryo → Baby
 - Embryo → Zygote → Foetus → Baby
 - Zygote → Embryo → Foetus → Baby
 - Foetus → Baby → Embryo → Zygote

The diagram below represents the external parts of a seed



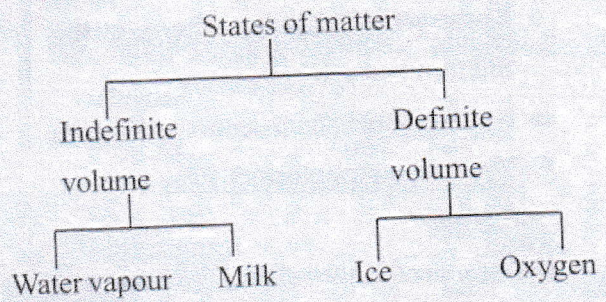
8. Which one of the following is NOT a function of the micropyle? To let
- A. radicle out of the seed
 - B. plumule comes out of the seed
 - C. gases in and out of the seed
 - D. water into the seed
9. Plants and animals depend on each other for the following EXCEPT
- A. food
 - B. habitat
 - C. Oxygen and carbon dioxide
 - D. pollination
10. The set up drawn below was arranged by class seven pupils in a certain school.



Which of the following materials will make the bulb light when placed at the gap?

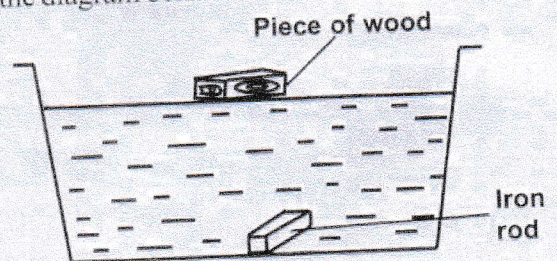
- A. Glass
- B. Rubber
- C. Wood
- D. Nail

11. Below is a chart showing classification of states of matter



Which substances were **WRONGLY** classified?

- A. Oxygen and ice
 - B. Milk and oxygen
 - C. Water vapour and milk
 - D. Ice and water vapour
12. Which of the following is NOT an excretory organ?
- A. Kidney
 - B. Skin
 - C. Anus
 - D. Lungs
13. Jane a Grade 6 girl placed different sizes of wood and iron in a basin of water as shown in the diagram below

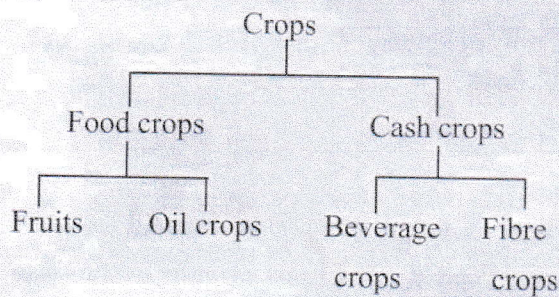


What aspect of sinking and floating was she investigating?

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

14. Kache weighs 90 kg while Nyevu weighs 50 kg for them to balance on a see-saw
- Kache should sit further away from the fulcrum
 - Nyevu should sit closer to the fulcrum
 - Nyevu should sit further away from fulcrum
 - Nyevu and Kache should sit at the same distance from the fulcrum
15. Which of the following is NOT a method of rotational grazing
- Tethering
 - Strip grazing
 - Herding
 - Paddocking

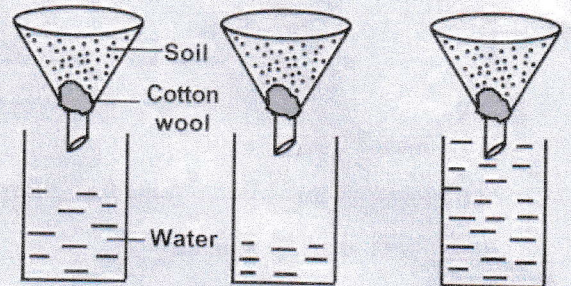
Std 7 Pupils grouped crops as shown below



16. Which type of crops was **WRONGLY** classified?
- Fruits
 - Oil crops
 - Beverage crops
 - Fibre crops
17. Which one of the following is a use of water in factories?
- Making fountains
 - Surfing
 - Mixing chemicals

D. Watering animals

18. The illustrations below shows two aspects of soil



Which of the following **CORRECTLY** shows the two aspects investigated?

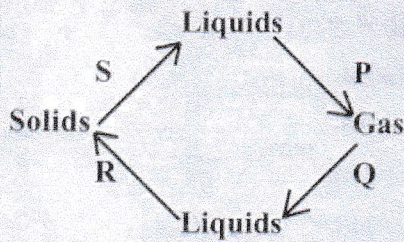
- Capillarity and drainage
 - Drainage and soil erosion
 - Retention and capillarity
 - Drainage and retention
19. Which one of the following planets is the first and last from the sun in the solar system?
- Venus and Neptune
 - Mercury and Neptune
 - Mercury and Uranus
 - Neptune and Mercury
20. The following are characteristics of a certain stage of HIV and AIDS infection:

- The person looks healthy
- The person has the virus
- The blood test positive

The stage is **LIKELY** to be

- window stage
- incubation stage
- full blown stage
- symptomatic stage

The diagram below shows how matter changes from one stage to the other



21. Name the processes P, Q and S respectively
- Evaporation, condensation, melting
 - Evaporation, condensation, freezing
 - Condensation, evaporation, melting
 - Freezing, melting, evaporation

22. The following are description of a type of cloud

- Are thick feathery clouds
- May cover the whole sky
- Made up of rounded masses
- They are dark heavy mountainous

Which of the descriptions is for nimbus only?

- (i) and (iv)
- (ii) and (i)
- (ii) and (iv)
- (iv) and (iii)

23. Duck-billed platypus and spiny-ant-eater are special mammals because they

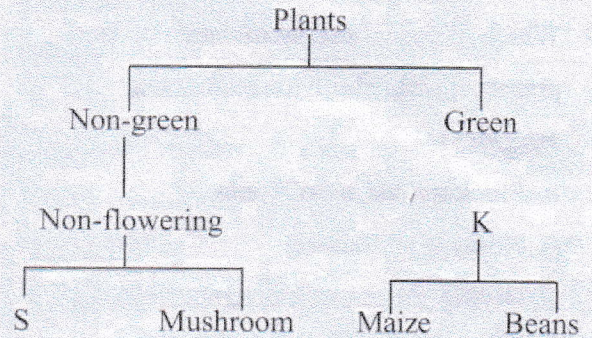
- are cold blooded
- lay eggs
- have mammary glands
- live in water

24. The non-green plants that live on other dead plants are called

- parasites
- decomposers
- saprophytes

D. producers

25. Study the classification of plants in the chart below



Choose the CORRECT name that would be represented by letters K and S respectively

K	S
A. Plants	Toad stool
B. Monocotyledons	Mosses
C. Dicotyledons	Lichen
D. Flowering	Toad stool

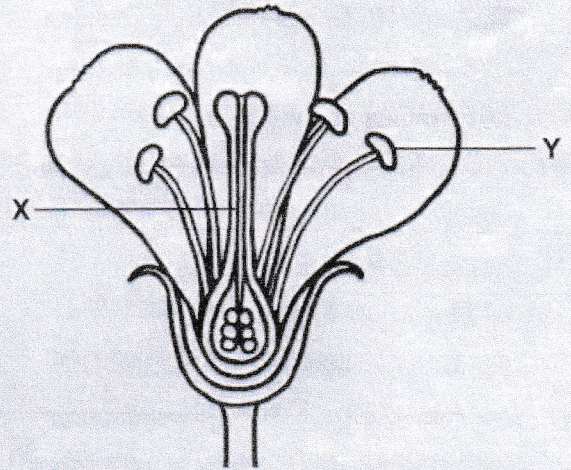
26. Which of the following groups of foods are sources of protein?
- Arrowroots, fish, sweet potatoes
 - Peas, fish, eggs
 - Cheese, rice, wheat
 - Maize, rice, eggs
27. Which one of the following occurs when rays of light pass from air into water?
- Reflection
 - Refraction
 - Absorption
 - Dispersion
28. Which one of the following materials can be attracted by a magnet?
- Aluminium

- B. Grass rod
- C. Copper coin
- D. Steel spoon

29. Which of the following methods of food preservation are both traditional and modern?
- A. Smoking and use of honey
 - B. Freezing and salting
 - C. Drying and use of low temperatures
 - D. Drying and use of high temperatures
30. Study the food chain below. Which is the CORRECT food chain?
- A. Grass → Rabbit → Fox
 - B. Grass → Leopard → Lion
 - C. Sea weeds → Bigfish → Small fish
 - D. Cabbage → Chicken → Caterpillar → Human beings
31. In which one of the following pairs of levers is the arrangement of the positions load, fulcrum and effort are the same when in use?
- A. Pair of scissors and hammer
 - B. Crowbar and wheelbarrow
 - C. Nutcracker and pincers
 - D. Fishing rod and bean balance
32. Which list contains useful non-green plants only?
- A. Yeast and penicillium
 - B. Yeast and toadstool
 - C. Yeast and bread mould
 - D. Penicillium and pig weed

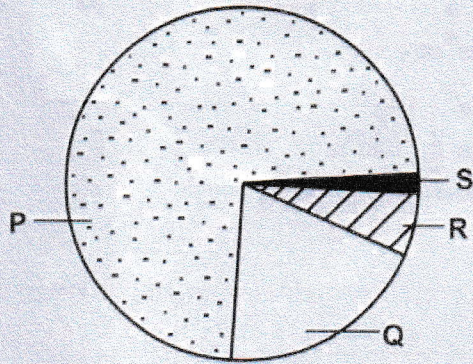
33. Which one of the following characteristics of study soil DOES NOT explain why water drains through it easily?
- A. Large particles
 - B. Rough textures
 - C. Shiny particles
 - D. Large air space

34. The diagram below shows parts of a flower



Which parts are represented by X and Y respectively?

- A. Anther and stigma
 - B. Style and anther
 - C. Anther and style
 - D. Filament and style
35. Which one of the following is NOT a use of water in the farm?
- A. Cleaning tool
 - B. Watering animals
 - C. Mixing chemicals
 - D. Cooling engines
36. The chart below shows percentage of the component of air. Which letter represents the gas that is necessary for burning?



- A. P
- B. S
- C. R
- D. Q

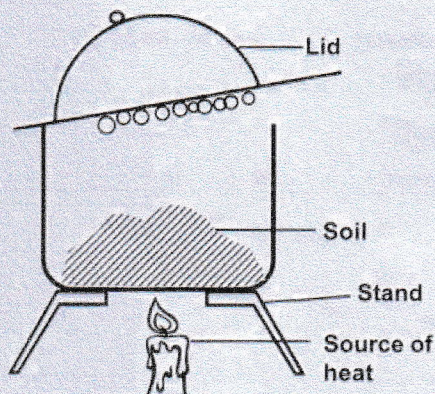
37. During a Science lesson, class seven observed the following in the soil:

- i) The soil has shallow channels
- ii) Deep V or U shaped channels
- iii) The top soil was washed away

Which of the observations were indications of rill erosion?

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

38. The diagram below represents a set up that can use used to investigate a certain component of soil. The component being investigated is



- A. Air
- B. Water
- C. Humus
- D. Small animals

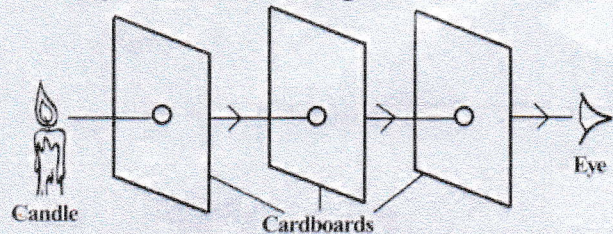
39. The following signs were seen in a child:

- i) Brown hair
- ii) Look like an old man or woman
- iii) Sores at the corners of the mouth
- iv) The skin appear pale

Which of the signs whos that the child is suffering from kwashiorkor?

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

40. The pupils of Pendo Primary School set up an experiment as shown below. What were they LIKELY to investigate?



- A. Light travels in all directions
- B. Light is translucent
- C. Light travels in a straight line
- D. Light does not travel in a straight line

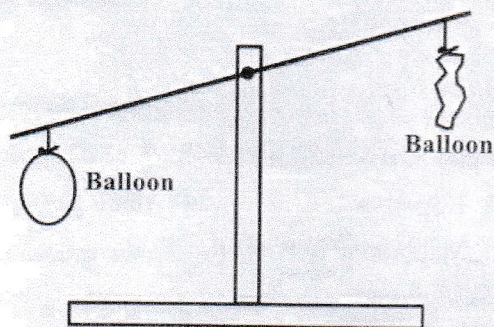
41. Which one of the following characteristics is common between birds and mammals?

- A. They lay eggs
- B. They are cold blooded
- C. The have constant body temperature
- D. Their body temperature change with the surrounding

42. Which of the following diseases is NOT a water borne disease?

- A. Bilharzia
- B. Marasmus
- C. Typhoid
- D. Cholera

43. Which of the following is NOT a way of using water sparingly?
- Bathing with just enough water
 - Using drip irrigation method
 - Turning off taps after use to avoid wastage
 - Harvesting and storing water
44. The following are disadvantages of friction EXCEPT
- friction makes work difficult
 - parts of machines wear out due to friction
 - friction helps to stop a moving vehicle
 - friction causes blisters on our feet and hands
45. Which of the following is a myth about HIV/AIDS?
- HIV/AIDS can be spread through shaking hands
 - One can get AIDS by sharing a toilet and meals
 - HIV/AIDS can be spread through insect bites
 - Those who contact HIV/AIDS are bewitched
46. Class five pupils of Kairi Primary School carried out an experiment as shown below



- The experiment was to investigate that gases
- occupy space
 - have mass
 - have volume
 - have definite shape
47. The extent of loudness or softness of sound is called
- volume
 - pitch
 - amplify
 - loud sound
48. The following mixtures can be separated using a magnet EXCEPT
- Iron fillings, copper particles
 - Salt, sand, sawdust
 - Office pins, copper fillings
 - Aluminium, iron fillings
49. Hot tea left in a cup gets cold because it loses heat by
- conduction and convection
 - radiation only
 - radiation and convection
 - conduction only
50. Which one of the following shows the CORRECT order of flow of blood in a human body?
- Right auricles → Pulmonary Artery → Lungs → Pulmonary Vein → Left Auricles
 - Pulmonary Vein → Left Auricle → Left Ventricles → Aorta → Body → Venacava
 - Venacava → Right Auricle → Right Ventricle → Pulmonary Vein → Aorta
 - Aorta → Venacava → Right Ventricle → Pulmonary Vein