

# KCPE NOVEMBER 2023 PREDICTION MASTER CYCLE 11

## 51600611

035713655



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.



906507

This question paper consists of 8 printed pages.

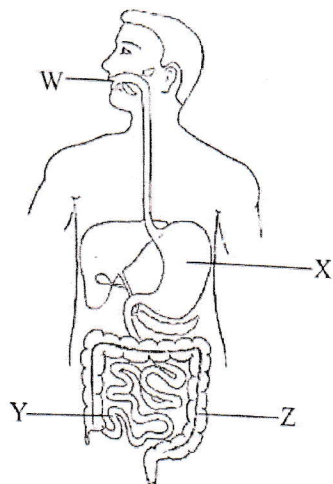
© Mthani Bora



Contact Mr Machuki 0724333200/0795491185 for Marking Schemes or [kenyaeducators.co.ke](http://kenyaeducators.co.ke)

1. Which one of the following statements is **not** correct about sound?
- A whisper is a soft sound
  - Loudness or softness of sound is its pitch
  - Sound is produced when objects vibrate
  - The highness of sound varies with the thickness of the string
2. Materials that allow some light to pass through them can be used to make the following **except**
- car windscreens
  - skylights in house roofs
  - toilet and bathroom windows
  - shades spectacles
3. The following are examples of legumes **except**
- barley
  - green grams
  - beans
  - cowpeas
4. The following are signs of a certain deficiency disease
- Protruding stomach*
  - Weak and inactive*
  - Swollen limbs*
- A child suffering from the above disease should be fed in a diet rich in
- vitamins
  - minerals
  - proteins
  - carbohydrates
5. Mwangi filled four bottles **P, Q, R** and **S** with different liquids
- Bottle **P** - kerosene and water  
 Bottle **Q** - cooking oil and water  
 Bottle **R** - kerosene and cooking oil  
 Bottle **S** - methylated spirit and milk
- Which bottles will Mwangi find it hard to separate the liquids? Liquids in
- bottle **P** and bottle **Q**
  - bottle **Q** and bottle **R**
  - bottle **R** and bottle **S**
  - bottle **P** and bottle **S**
6. When making a windvane, a biropen cap is used as the balancing point in order to make the instrument
- measure strength of wind
  - measure direction of wind
  - move freely
  - show where wind is going
7. Which one of the following types of human teeth is **correctly** matched to its function?
- | Teeth        | Function              |
|--------------|-----------------------|
| A. Molars    | crushing and grinding |
| B. Incisors  | tearing and cutting   |
| C. canines   | tearing and crushing  |
| D. premolars | cutting and grinding  |
8. The following are characteristics of some vertebrates
- Smooth and moist skin*
  - Lay eggs*
  - Live partly on land and water*
- The animal is most **likely** not to be a
- turtle
  - newt
  - salamander
  - frog

9. The diagram below shows the human digestive system.



In which of the labelled parts is a juice produced to breakdown starch and carbohydrates?

- A. W  
 B. X  
 C. Y  
 D. Z
10. Which one of the following is **not** an effective measure for controlling the spread of HIV/AIDs in a community?
- A. Creating public awareness  
 B. Conducting campaigns through various media  
 C. Avoid going public about HIV status  
 D. Educating the masses
11. Which one of the following practices is the **most** effective in prevention of cholera and typhoid?
- A. Proper sanitation  
 B. Draining stagnant  
 C. Proper disposal of wastes  
 D. Boiling drinking water

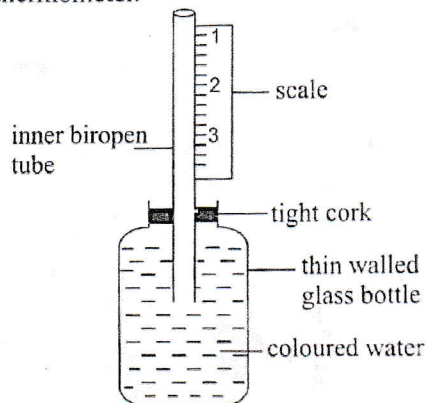
12. The component of air that is given out during photosynthesis is

A. 0.03%  
 B. 0.97%  
 C. 21%  
 D. 78%

13. In which of the following ways do plants show interdependence?

A. Support  
 B. Medicine  
 C. Carbon dioxide  
 D. Pollination

14. The diagram below shows a liquid thermometer.



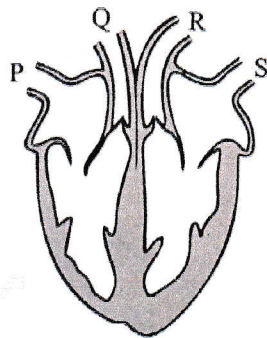
The instrument is **likely** not to give accurate reading because of

- A. using a thin glass bottle  
 B. the tight cork  
 C. wrong scale placement  
 D. using coloured water
15. Which one of the following is **not** a safety measure against lightning?
- A. Avoid working near mains electricity  
 B. Do not carry sharp objects while it is raining  
 C. Avoid swimming pools and other pools when it is raining  
 D. Do not shelter under tall trees during storms

16. Which of the following characteristics are definite in all states of matter? All states of matter
- occupy space, expand when heated, have mass
  - have definite size, occupy space, contract when cooled
  - have mass, take the shape of the container, occupy space
  - expand when heated, contract when cooled, have definite size

17. Which one of the following is **not** a way of using water sparingly?
- Using drip irrigation
  - Repairing leaking taps
  - Rationing water supply
  - Storing water tanks and jerrycans

18. The diagram below shows a simple mammalian heart.



Which pair of blood vessels carry deoxygenated blood?

- P and Q
  - Q and R
  - R and S
  - P and S
19. Which one of the following ways **cannot** reduce friction?
- Using coarse materials
  - Using lubricants
  - Streamlining bodies
  - Making the surfaces smooth

20. Which of the following components of soil can be investigated by heating a sample of soil?
- Organic matter and air
  - Organic matter and water
  - Small animals and air
  - Humus and mineral particles

21. Which one of the following is **not** an artificial way of lighting a house? Using
- tin lamp
  - rechargeable torch
  - skylights
  - electric lamps

22. Which one of the following physical properties of soil does **not** depend on the size of its soil particles?
- Drainage
  - Capillarity
  - Colour
  - Texture

23. Which one of the following plants is **correctly** matched with the type of the root system?

Tap root	Fibrous root
A. Grass	Wheat
B. Coconut	Acacia
C. Kales	Onion
D. Tomato	Blackjack

24. Which one of the following statements is **true** about immunization schedule in infants?
- All immunizable diseases are communicable
  - The second dose of tetanus is administered when an infant is 6 weeks old
  - BCG vaccines prevent the infant from contracting pertussis
  - Tetanus is immunizable but it is not communicable

25. A rocket was launched from planet earth to planet saturn. Which of the following pairs of planets was it **likely** to pass on its way?

- A. Mercury and Venus
- B. Uranus and Neptune
- C. Neptune and Mars
- D. Mars and Jupiter

26. Which of the following external parasites is **correctly** matched with the animal that it attacks?

Parasite	Animal attacked
A. Mite	Cows and chicken
B. Ticks	Cows and horses
C. Fleas	Rabbits and camels
D. Lice	Camels and horses

27. The following are characteristics of a certain cloud

- i) *They are white in colour*
- ii) *They look balls of cotton*
- iii) *They signify fair weather*

The clouds described above also

- A. are found low in the sky
- B. are also followed by rainfall
- C. form high in the sky
- D. are mountaineous

28. Which one of the following is **not** a way in which HIV can be transmitted?

- A. During birth
- B. Transfusing of unscreened blood
- C. Unprotected sex
- D. Sharing food

29. Which of the following animals is **correctly** matched with its product?

Animal	Product
A. Broiler	hides
B. Cow	wool
C. Goat	mohair
D. Donkey	beef

30. Which list of plants given below are **not** flowering plants?

- A. Maize, beans, onions
- B. Ferns, mosses, lichens
- C. Cactus, algae, mould
- D. Toadstool, sugarcane, mushroom

31. Which one of the following consists of social effects of abusing drugs?

- A. Addiction and fits
- B. Marital conflicts and accidents
- C. Truancy and withdrawal
- D. Poor concentration and coma

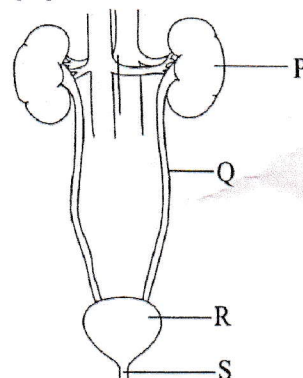
32. Which one of the following is an example of a straight fertilizer?

- A. NPK
- B. Bone meal
- C. Diammonium phosphate
- D. Monammonium phosphate

33. Which of the following is a physical change in **both** adolescent boys and girls?

- A. Growth of hair in the armpits
- B. Hips broaden
- C. Chest become broader
- D. Menstruation

34. The diagram below shows the human urinary system.



Urine is produced in the part marked

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

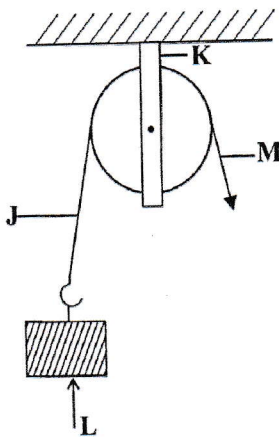
35. Which of the following components of the environment is **mainly** polluted by excessive use of all the farm chemicals?
- Water and soil
  - Soil and air
  - Plants and animals
  - Animals and water
36. Which of the following is the **main** reason why taps are fitted at the bottom of water tanks?
- Pressure in liquids increases with depth
  - Pressure in liquids is equal at the same depth
  - Pressure in liquids is exerted equal in all directions
  - For easy fetching of water
37. Which one of the following activities can be used to demonstrate rill erosion? Pouring water
- on a flat surface of soil
  - in channels of soil on a slanting surface
  - at different positions of a slanting soil
  - on a flat surface using a tin with many holes
38. The **common** adaptive feature in both fish and an eagle is that both
- have hollow bones
  - lay fertilized eggs
  - have streamlined body
  - breath by lungs
39. Which one of the following is the **best** method of controlling cutworms in a maize field?
- Spraying
  - Hand picking
  - Using a scarecrow
  - Trapping
40. The reason why some plants have thick waxy cuticle is to
- trap more sunlight
  - reduce water loss
  - store manufactured food
  - allow breathing to take place
41. Which one of the following materials is **not** needed in an investigation to find out the disadvantages of hard water?
- Warm water
  - Basin
  - Dirty clothes
  - Water from different sources
42. Which of the following methods of grazing do farmers **mainly** feed their animals on fodder crops and commercial feeds?
- Tethering
  - Stall feeding
  - Paddocking
  - Herding
43. Which of the following maintenance practices is **least** important to a wheelbarrow that is used regularly?
- Tightening loose nuts and bolts
  - Painting it regularly
  - Cleaning after use
  - Greasing movable parts

44. Class five pupils collected the following materials to construct a simple machine

- i) *Two tins*
- ii) *Pieces of wood*
- iii) *Nails*
- iv) *Strings*

Which one of the following is **likely** to be the function of the simple machine that they constructed?

- A. Determining friction
  - B. Measuring weight
  - C. Comparing mass
  - D. Balancing masses
45. Which one of the following is **not** a source of water?
- A. Tap
  - B. Spring
  - C. Well
  - D. Rain
46. Which one of the following is **not** a source of protective foods?
- A. Fruits
  - B. Dark green vegetables
  - C. Carrots
  - D. Peas
47. The diagram below shows a single fixed pulley.



When determining the force applied the spring balance is placed at the place marked

- A. J
- B. K
- C. L
- D. M

48. Which one of the following practices is **not** an advantage to the soil?

- A. Digging along the slope
- B. Digging across the slope
- C. Mulching
- D. Controlled use of farm chemicals

49. Which one of the following is **not** an effect of force? Force

- A. change the direction of a moving object
- B. increases the speed of a moving object
- C. makes objects to stop moving
- D. breaks an object

50. Which one of the following methods of preserving food is **both** traditional and modern?

- A. Salting
- B. Drying
- C. Freezing
- D. Canning