

KCPE NOVEMBER 2023 PREDICTION MASTER CYCLE 8 5160068

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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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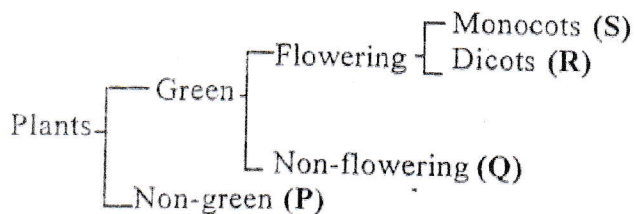
This question paper consists of 8 printed pages.

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Contact Mr Machuki 0724333200/0795491185 for Marking Schemes or kenyaeducators.co.ke

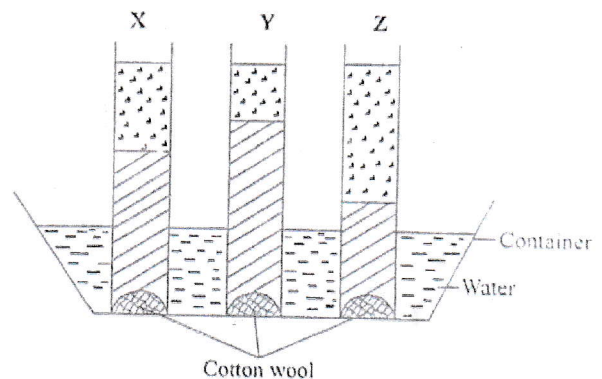
- The following are functions of the nose **except** one. Which one is it?
 - Trapping moisture
 - Filtering dust
 - Warming the air
 - Moistening the air
- Which one of the following is **not** an insectivorous plant?
 - Butterwort
 - Venus fly trap
 - Buttercup
 - Bladderwort
- The following processes take place during inhalation. Which one **does not**?
 - Volume increases in the lungs
 - Pressure increases in the lungs
 - The diaphragm flattens
 - The ribs move upwards
- Which one of the following pairs form the embryo of a germinating bean seed?
 - Cotyledon and microphyle
 - Hilum and testa
 - Plumule and radicle
 - Cotyledon and endosperm
- The chart below show classification of plants.



Which one of the following shows a summary of examples in each case as shown above?

<u>P</u>	<u>Q</u>	<u>R</u>	<u>S</u>
A. Mushroom	Moss	Peas	Sorghum
B. Fern	Puff balls	Lichen	Maize
C. Moss	Cedar	Maize	Beans
D. Algae	Mushroom	Beans	Rice

- Which one of the following is **not** a requirement for germination?
 - Soil
 - Water
 - Air
 - Warmth
- The process of digestion of food start in the _____ and ends in the _____.
 - mouth, anus
 - small intestine, large intestine
 - mouth, rectum
 - mouth, ileum
- The illustration below shows to experiment set-up by Grade Six pupils to investigate the rise of water in soils.

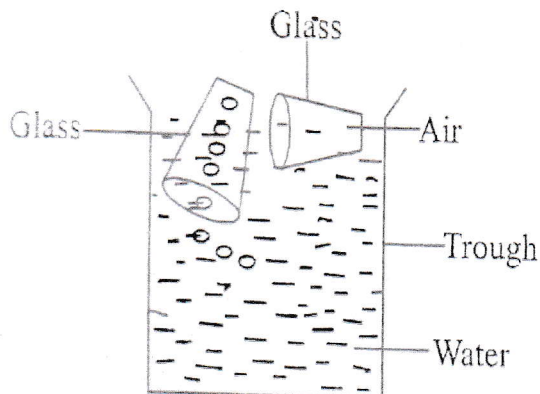


When the experiment was left to stay overnight, the results were as shown above. From the observation, which of the following statements can be **true**? Soil sample

- X is the for modelling
 - Y cannot make the longest ribbons
 - Z has the best drainage
 - Y has larger air spaces than soil sample X
- A child well known to be suffering from anaemia will show all the following signs and symptoms **except**.
 - pot belly
 - heart beats rapidly
 - pale and whitish palms and fingernails
 - feeling weak and lack of energy

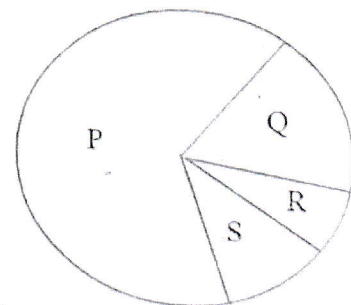
10. Which one of the following shows the largest and the brightest planets?
 A. Mercury and Saturn
 B. Jupiter and Venus
 C. Neptune and Mercury
 D. Pluto and Earth
11. Which one of the following statements about arteries and veins is **incorrect**?
 A. Arteries have thick elastic walls
 B. All vein carry blood away from the heart
 C. Veins have valves
 D. Arteries are located deep inside the muscles
12. Which one of the following is the liquid part of blood?
 A. Plasma
 B. Red blood cells
 C. White blood cells
 D. Platelets
13. One of the following is **not** an internal livestock parasite. Which one?
 A. Tapeworm
 B. Liver fluke
 C. Roundworm
 D. Ringworm
17. Which one of the following methods of grazing is **not** rotational?
 A. Stall feeding
 B. Strip grazing
 C. Tethering
 D. Paddockging
18. Which one of the following is the reproductive organ of a plant?
 A. Stem
 B. Flower
 C. Leaf
 D. Roots
19. Choose the **incorrect** statement among the following about matter.
 A. Solids have definite volume
 B. Liquids have definite shape
 C. Gases have definite mass
 D. Solids have definite shape
20. The following are reasons as to why one should know his or her HIV status. Which one is **not**? To
 A. enable him or her to take necessary precautions
 B. minimise the spread of HIV
 C. plan for the future
 D. enable him or her to seek early medical treatment
21. Which one of the following shows the major components of the environment?
 A. Plant, animals, light, sound
 B. Soil, water, plants, animals
 C. Air, water, light, plants
 D. Buildings, light, sound, heat

The diagram below shows an experiment done by Grade Five pupils. Use it to answer question 14.



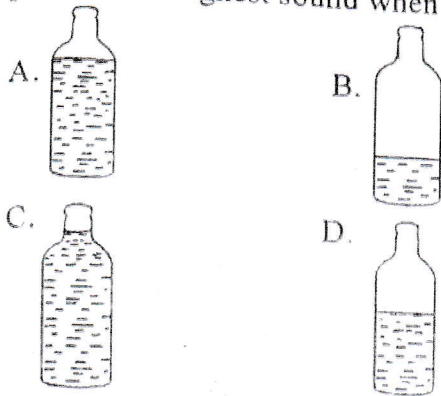
14. This experiment was **most likely** set up to demonstrate the fact that
 A. air has weight
 B. air exerts pressure
 C. water contains air
 D. air occupies space
15. Some curative drugs are also called
 A. pain relievers
 B. antibiotics
 C. vaccines
 D. stimulants
16. Which one of the following is **not** a good way of maintaining tools?
 A. Cleaning and drying them
 B. Sharpening cutting edges
 C. Keeping tools outside for fresh air
 D. Oiling and greasing tools

The diagram below shows components of air as found in the atmosphere in relative amounts. Study it and answer question 22:



22. Which one of the above parts shows the air needed by plants during the process of photosynthesis?
 A. P
 B. Q
 C. R
 D. S
23. Which one of the following weeds is edible?
 A. Pig weed
 B. Sodom apple
 C. Wandering jew
 D. Black jack

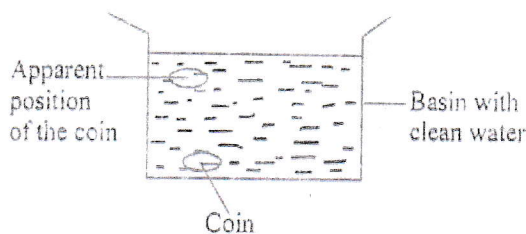
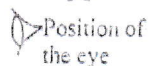
24. Which one of the following bottles will produce the highest sound when blown?



25. When two stones of different sizes are dropped from the same height at the same time, what happens?

- A. They reach the ground at the same time
- B. The bigger stone falls faster
- C. The smaller stone falls faster
- D. They collide and refuse to fall

26. If a coin is immersed into a basin with clear water, it appears raised to a height higher than the bottom of the basin. This happens as a result of .



- A. reflection of light
- B. refraction of light
- C. dispersion of light
- D. diffusion of lights

27. Study the food chain below. The arrow points to the eater.

Grass → Grasshoppers → Frogs → Snakes

From the food chain, which of the above is a producer?

- A. Grass
- B. Grasshoppers
- C. Frogs
- D. Snakes

28. Which one of the following drugs is a stimulant when taken in small quantities but depressant when taken in large amounts?

- A. Bhang
- B. Khat
- C. Cigarette
- D. Alcohol

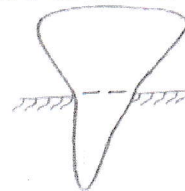
29. Which one of the following methods of food preservation takes effect by reducing or absorbing water from the food?

- A. Canning
- B. Refrigeration
- C. Using honey
- D. Salting

30. Which one of the following immunisable diseases is **not** controlled by administering a D.P.T vaccine?

- A. Diphtheria
- B. Polio
- C. Whooping cough
- D. Tetanus

31. Different types of teeth are used for different functions. The type of tooth shown below is used for



- A. grinding
- B. tearing
- C. cutting
- D. chewing

32. The following are myths and misconceptions about HIV/AIDS. Which one is **not**?

- A. AIDS has no cure
- B. HIV carriers are always thin
- C. HIV/AIDS is a curse
- D. HIV/AIDS victims are sexually active

33. The following are effects of abusing drugs:

- (i) Truancy
- (ii) Lack of concentration
- (iii) Withdrawal symptoms
- (iv) Rape
- (v) Addiction

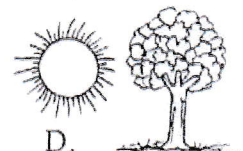
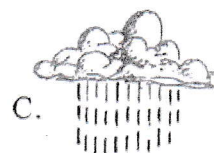
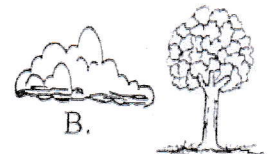
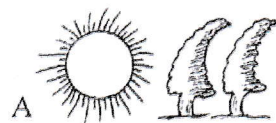
Which one of the above are social effects?

- A. i and ii
- B. iii and iv
- C. i and iv
- D. i, iv and v

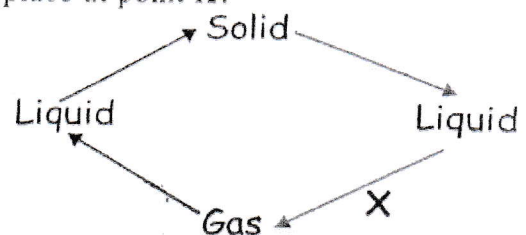
34. Which one of the following foodstuffs will provide the body with the energy required to perform manual work?

- A. Lemon, pumpkins and sweet potatoes
- B. Ugali, beans and sukumawiki
- C. Chapati, roasted maize and cooked bananas
- D. Chapati, chicken and pineapple juice

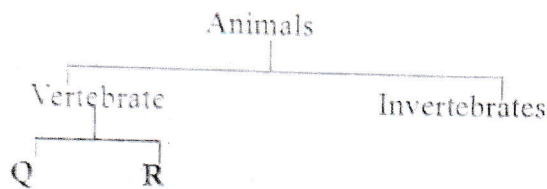
35. Clothes can take the shortest time to dry when the weather is



36. Which one of the following processes take place at point X?



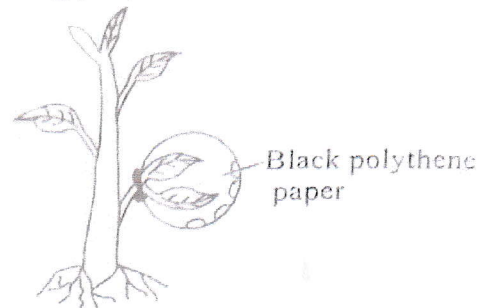
- A. Condensation B. Evaporation
C. Melting D. Freezing
37. Water can be used for different functions. Which one of the following cannot be a use of water for recreational purpose?
A. Swimming B. Ferrying
C. Surfing D. Fishing
38. The transfer of heat through gases takes place by
A. radiation only
B. convection only
C. conduction only
D. radiation and convection
39. The chart below shows classification of animals



If vertebrates can further be classified into two groups as shown above, which one of the following animals will not belong to group R?

- A. Birds B. Reptiles
C. Fish D. Amphibians
40. Which one of the following emotional changes occur to both boys and girls during adolescence?
A. Shoulders broaden
B. Feeling shy
C. Attraction to the opposite sex
D. Growth of pubic hair
41. Digestion of proteins starts in the
A. mouth B. small intestines
C. stomach D. liver
42. Which one of the following livestock parasites **incorrectly** matched with its effect?
- | Parasite | Effect |
|---------------|-------------------------|
| A. Mites | — Damage the skin |
| B. Roundworms | — Cause swollen belly |
| C. Fleas | — Cause skin irritation |
| D. Tapeworms | — Cause liver bleeding |
43. The **main** reason as to why we apply mulch on the farm is to
A. make the soil fertile
B. suppress the weeds
C. conserve the soil
D. conserve the water
44. A farmer will find it well to turn materials in a compost pit in order to
A. allow air circulation
B. introduce decomposers
C. fix nitrogen in the soil
D. slow down the rate of decomposition

45. Clouds that yield rainfall
A. are mountaineous by appearance
B. look like round cotton balls
C. are grey in colour and are seen high in the sky
D. are seen low in the sky and look like feathers
46. A group of Grade Five pupils were set to carry out an experiment where they tied a black polythene paper on a leaf of young growing plant as shown below.



From the above experiment, the pupils were **likely** to conduct an investigation on
A. photosynthesis B. respiration
C. transpiration D. germination

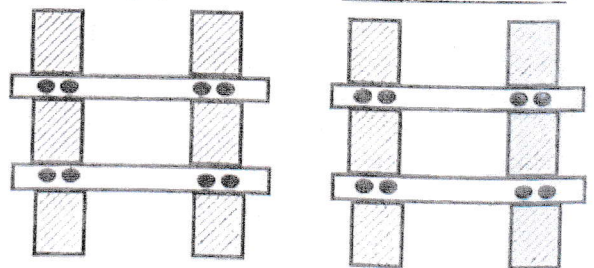
47. Which one of the following crop pests is **correctly** matched with the part of the crop it attacks?

Pest	Part it attacks
A. Weaver bird	- Sucks sap on leaves
B. Weevil	- Stem
C. Army worm	- Leaves
D. Cutworm	- Flowers

48. Which one of the following farm animal will provide us with mutton and dairy milk?
A. Sheep only B. Goat only
C. Cows only D. Sheep and goats
49. The amount of force of gravity acting on an object is called weight. Weight therefore can be measured in

A. grams	B. kilograms
C. metres	D. newtons

50. During the construction of a railway line, some gaps or open spaces are left between the crossbars of the bars as shown below. These gaps are left to



- A. prevent rusting of the metal bars
B. create patterns for beauty
C. allow room for expansion
D. allow room for contraction