

KCPE NOVEMBER 2023 PREDICTION MASTER CYCLE 15

51600615

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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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1. Which of the following is **not** a controlled method of grazing?

- A. Zero grazing
- B. Strip grazing
- C. Herding
- D. Tethering.

2. The diagram below represents a flower.



Which part allows germination of pollen tube?

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

3. Which of the following drugs leads to liver cirrhosis if abused for a long period of time?

- A. Miraa
- B. Tobacco
- C. Cebbler glue
- D. Alcohol

4. Which of the following is **not** a function of the blood in the human circulatory system?

- A. Transports carbon dioxide from the lungs to the body cells
- B. Distributes heat from the liver to all parts of the body
- C. Transports hormones from glands to where they are needed
- D. Transport digested food from ileum to all body parts

5. Which of the following is **not** a minimal use of water?

- A. Mulching crops
- B. Reusing water
- C. Recycling water
- D. Harvesting water

6. Which of the following methods of food preservation is a pair that cools by evaporation?

- A. Salting and smoking
- B. Charcoal cooler and dipping milk in cold water
- C. Drying and use of honey
- D. Freezing and refrigeration

7. Which of the following is a social effect of drug abuse?

- A. Poor health
- B. Loss of consciousness
- C. Impaired judgement
- D. Marital conflicts

8. The following are processes that take place during birth

- i) *Dilation of cervix*
- ii) *Contractions of uterine wall*
- iii) *Bursting of the amniotic bag*
- iv) *Tying and cutting of umbilical cord*
- v) *Release of after birth*
- vi) *Pushing out the baby*

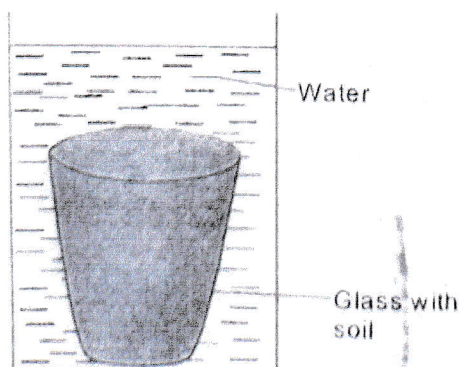
Which one is the correct order?

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

9. Which of the following is **not** an excretory product in human being?

- A. Urine
- B. Faeces
- C. Sweat
- D. Carbon dioxide

10. The diagram below represents an experiment used by grade four learners to investigate a certain soil component.



Which component of soil was being investigated?

- A. Air in the soil
- B. Water in the soil
- C. Living things in the soil
- D. Humus in the soil

11. Grade five learners collected the following materials;

- i) *biro cap*
- ii) *wooden stand*
- iii) *metal sheet*
- iv) *wires*

Which one of the following were they likely to make?

- A. Beam balance
- B. Windsack
- C. Air thermometer
- D. Windvane

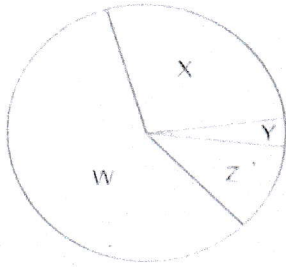
12. A child had the following signs and symptoms;

- i) *ran out of breath very easily*
- ii) *paleness on palms and nails*
- iii) *become tired easily*
- iv) *faster heart beats*

Which of the following food stuffs would help to correct the deficiency?

- A. Matumbo, millet, fish
- B. Red meat, spinach, liver
- C. Peas, groundnuts, fish
- D. Cabbage, carrot, mango

13. The diagram below represents the proportions of gas in the atmosphere.



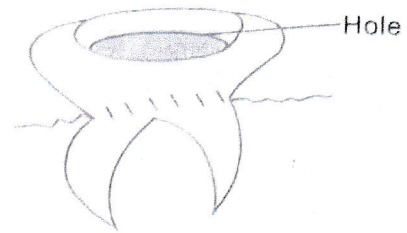
Which letter represent a gas used for making plants food?

- A. X
B. Z
C. Y
D. W
14. Which of the following pairs of plants only store food in the stem?
A. Sugarcane and irish potato
B. Yam and cassava
C. Carrot and cassava
D. Sweet potato and arrow roots
15. Which of the following substances are grouped correctly?

	Definite volume	Definite shape	Definite mass
A.	Smoke	wood	water
B.	Glue	chalk dust	oxygen
C.	Sand	milk	soil
D.	Ice	water vapour	carbon dioxide

16. Which of the following parts of the human digestive system is responsible for the absorption of water and mineral salts?
A. Oesophagus
B. Stomach
C. Small intestine
D. Large intestine

17. The diagram below represents a problem related to teeth.



Which of the following problems was followed by the one shown above?

- A. Dental cavity
B. Dental carries
C. Bleeding gums
D. Bad breath
18. The most appropriate control measure against the spread of HIV and AIDS from mother to child is by
A. creating public awareness
B. visiting VCT centres
C. mass education
D. campaigning through various media
19. The following are characteristics of a certain type of soil erosion;
i) forms deep channels
ii) occurs on steep slopes
iii) initially prevented by terraces
The type of erosion described above is likely to be
A. sheet erosion
B. splash erosion
C. rill erosion
D. gully erosion

20. Which one of the following pair of animal parasites belong to the same group as a louse?
- Tsetsefly and roundworms
 - Liverfluke and ticks
 - Hookworms and roundworms
 - Mites and fleas
21. Formation of a rainbow is a result of the following properties of light. Which one is it?
- Refraction and dispersion
 - Reflection and refraction
 - Reflection and absorption
 - Dispersion and absorption
22. In a certain experiment pupils mixed several liquids together. Which of the following liquids were all miscible?
- Water and spirit
 - Ink and kerosene
 - Cooking oil and water
 - Methylated spirit and paraffin
23. Which of the following is **not** an effect of HIV/AIDS to the nation?
- Low agricultural production
 - Increased number of orphans
 - Congestion in hospitals
 - School dropout

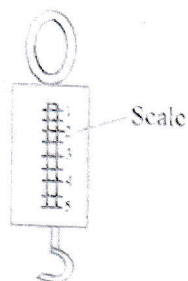
24. Which of the following diseases is correctly matched with the age at which it is immunized?

	Disease	Age of immunization
A.	Poliomyelitis	9 months
B.	Tuberculosis	6 weeks
C.	Pertussis	14 weeks
D.	Yellow fever	At birth

25. A child with blood stains in the *stool, skin rashes* and *paining muscles* is also likely to have
- headaches
 - blood in urine
 - coughing
 - chest pains
26. Which of the following stages of human development attaches itself on the walls of uterus?
- Foetus
 - Zygote
 - Embryo
 - Ovum
27. Which of the following is a pair of levers that only have the position of the fulcrum between the load and the effort?
- Crowbar and spade
 - Fishing rod and spade
 - Lid opener and scissors
 - Wheelbarrow and bottle opener

28. All the following ways can increase friction force **except**
- A. treading shoe soles and tyres
 - B. streamlining objects
 - C. roughening surfaces
 - D. spreading coarse materials

29. The diagram below represent a tool used to do work.

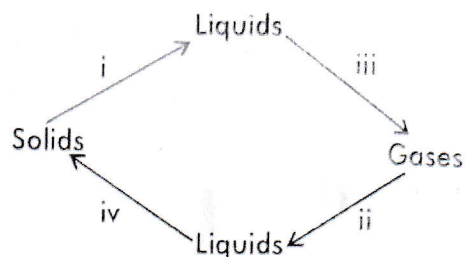


The instrument is mainly used to measure

- A. force
 - B. mass
 - C. volume
 - D. pressure
30. In which one of the following ways is water used for transport?
- A. Swimming from one end of the river to the other
 - B. Using a boat to cross a river
 - C. Making fountains
 - D. Water delivered to towns using large pipes
31. Which of the following plants have a tap root system only?
- A. Carrot, maize, sorghum
 - B. Arrowroot, sisal, cassava
 - C. Coconut, acacia, mango
 - D. Kale, cabbage, beans

32. Which of the following is **not** needed when determining pressure in liquids?
- A. A nail
 - B. Water
 - C. Collecting jar
 - D. Wax

33. The diagram below represents processes of change of states.



Which two processes occur as a result of absorption of heat?

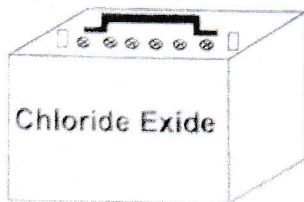
- A. i and iii
 - B. iii and ii
 - C. ii and iv
 - D. i and iv
34. Heat energy is used in all the following ways **except**
- A. germination
 - B. food preservation
 - C. burning
 - D. lighting
35. Which of the following pollutants will **not** pollute soil?
- A. Improper disposal of domestic waste
 - B. Improper disposal of raw industrial waste
 - C. Poor agricultural practices such as use of excess fertilizers
 - D. Mulching of soil with decaying plants matter

36. Which of the following are good sources of calcium mineral?
- A. Cabbages, beans and fish
 - B. Milk, fish, millet and matumbo
 - C. Yams, irish potato and sweet potato
 - D. Mangoes, oranges watermelon and passion

37. Animals that hop and leap have short front legs that are useful for
- A. landing and absorbing shock
 - B. hopping on land
 - C. giving a forward push
 - D. leaping on land

38. Which of the following occasions are **not** suitable to conduct mass education on HIV and AIDS?
- A. Seminars
 - B. Workshops
 - C. Job interview
 - D. Public rallies

39. The diagram below represents a source of electricity.



Which of the following sources produces the electricity in the same way as the one shown above?

- A. Bicycle dynamo
- B. Torch dry cells
- C. Wind turbine
- D. Solar panel

40. Kamau accidentally mixed salt and sugar during his house work. Which of the following methods could be suitable to use to separate the mixture?
- A. Dissolve, filter, evaporate
 - B. Dissolve, sieve, evaporation
 - C. Sieve, decant, evaporate
 - D. None of the above

41. A certain group of animals have the following characteristics;
- i) uses lungs to breathe
 - ii) lay unfertilized eggs
 - iii) external fertilization
 - iv) use gills when young

The animal described above will **not** include

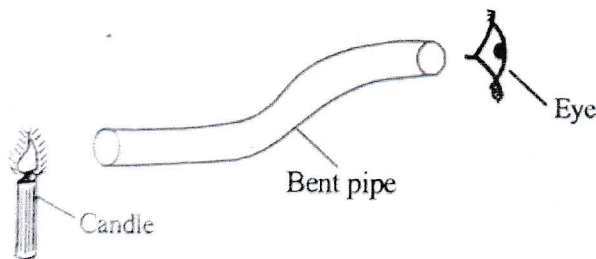
- A. lizard
- B. frogs
- C. newts
- D. salamander

42. The following are uses of light energy **except**
- A. photosynthesis
 - B. photographing
 - C. communication
 - D. discouraging pests

43. Which of the following groups of materials consists of good conductors of electricity only?

- A. Zinc, aluminium, air, silver
- B. Copper, wood, iron, silver
- C. Graphite, water, steelwool, lead
- D. Plastic, wood, rubber, cork

44. A type of water that is least likely to form lather with soap is **not** likely to
- be good for drinking
 - be boiled water
 - form scum with soap
 - cause fur in cooking utensils
45. When the arrow of a windvane is pointing to the east, wind must be blowing from
- south to north
 - east to west
 - north to south
 - west to east
46. The diagram below represents a set up that was used to investigate a certain aspect of light.



The aspect of light investigated can also be demonstrated by use of

- cardboards with a hole at the centre
- mirror and water
- pen placed in water
- glass prism

47. Which of the following groups of plants consists of only flowering plants?
- Onions, sisal, napier grass
 - Maize, kales, toadstools
 - Beans, mushrooms, peas
 - Euphorbia, cactus, moulds
48. Which of the following statements is **not** true about commercial feeds for livestock?
- Some are given as the only feed
 - They are mainly given for protection against diseases
 - They are mainly given to increase production
 - Some are given together with other feeds
49. The following are effects of diseased crops **except**
- poor quality produce
 - reduced yields
 - economic loss
 - stunted growth
50. Which of the following factors need **not** to be the same when comparing drainage in different types of soils?
- Amount of soil used
 - Size of funnels
 - Size of collecting jars used
 - Amount of water used