

70015193

THE KENYA NATIONAL EXAMINATIONS COUNCIL



KCPE 2023

507 

SCIENCE

Oct. 2023 – 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES (Please read these instructions carefully)

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

HOW TO USE THE ANSWER SHEET

4. Use an ordinary pencil only.
5. Confirm that the answer sheet that you have been provided with has the following:

YOUR INDEX NUMBER
YOUR NAME
NAME OF YOUR SCHOOL

6. Do not make any marks outside the boxes.
7. Keep the answersheet as clean as possible and do not fold it.
8. For each of the questions 1 - 50 four choices are given. The choices are lettered A, B, C and D. In each case only **ONE** of the four choices is correct. Choose the correct answer.
9. 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 paper:

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

The correct answer is **D**.
On the answer sheet:

In the set of boxes numbered **4**, draw a **dark line** inside the box with the letter D printed in it as indicated below.

4 (A) (B) (C) (D)

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

This Question paper consists of 6 printed pages.

THE LAST KCPE EXAMINATION

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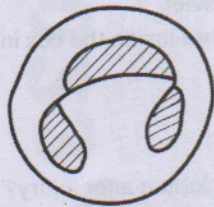
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Turn over

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1. Which one of the following types of teeth in human beings is **not** shed?
 - A. Premolars.
 - B. Incisors.
 - C. Molars.
 - D. Canines.
2. In which **one** of the following pairs of parts of the human body does digestion of food take place?
 - A. Liver and stomach.
 - B. Stomach and mouth.
 - C. Pancreas and small intestine.
 - D. Large intestine and mouth.
3. During breathing in, the following happens to air as it passes through the nose **except** being
 - A. warmed
 - B. moistened
 - C. cleaned
 - D. absorbed.
4. The following diagram represents a certain blood cell in human beings.



The function of the blood cell is to

- A. transport oxygen
 - B. clot blood
 - C. fight germs
 - D. transport food.
5. Which one of the following excretory products is produced by the skin, lungs and the kidney?
 - A. Salt.
 - B. Carbon IV oxide.
 - C. Water.
 - D. Urea.

6. The following are control measures for HIV and AIDS **except**
 - A. immunization
 - B. counselling and testing
 - C. educating masses
 - D. media advertisement.
7. The **main** reason why one should go for HIV testing is
 - A. to know one's HIV status
 - B. to stop spreading of HIV
 - C. for an infected person to live positively
 - D. for one to seek treatment.
8. The following are signs and symptoms of a certain communicable disease:
 - (i) Chest pain;
 - (ii) Loss of weight;
 - (iii) General body weakness;
 - (iv) Prolonged coughing.

The disease can **best** be prevented through

 - A. proper ventilation
 - B. clearing bushes
 - C. proper nutrition
 - D. giving vaccination.
9. Which one of the following practices is dangerous when handling chemicals at home?
 - A. Storing chemicals in bottles.
 - B. Following instructions on the container.
 - C. Smelling chemicals to identify them.
 - D. Using protective equipment.
10. The following are some signs and symptoms of sexually transmitted infections:
 - (i) painful urination;
 - (ii) painless chancre;
 - (iii) rash on the body;
 - (iv) smelly pus from the genitals.

Which **two** are for syphilis?

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

11. Which one of the following diseases is in the immunisation schedule for infants?
- Herpes.
 - Malaria.
 - Diphtheria.
 - Chancroid.
12. Healthy teeth can be maintained by
- eating sugary foods
 - using teeth to open bottles
 - eating vegetables and fruits
 - cleaning teeth before breakfast.
13. Which one of the following plants store food in the stem?
- Sweet potato.
 - Irish potato.
 - Cassava.
 - Carrots.
14. The following is a representation of a food chain.
- Grass → Grasshopper → Guinea fowl → Eagle
- The secondary consumer is
- eagle
 - grasshopper
 - grass
 - guinea fowl.
15. Which **one** of the following adaptations enable plants to survive in wet areas?
- Presence of thin cuticle.
 - Presence of needle like leaves.
 - Deep roots.
 - Succulent stems.
16. An example of a plant that obtains food nutrients from insects is
- mango
 - cactus
 - acacia
 - sundew.
17. Which **two** of the following are oil crops?
- Maize and barley.
 - Coconut and maize.
 - Cotton and barley.
 - Coconut and millet.
18. Pupils assembled the following materials to construct a certain weather instrument:
- A glass bottle;
 - Ink;
 - Biro pen tube;
 - Water;
 - Manilla paper;
 - Cellotape.
- The weather instrument constructed was a
- windvane
 - rain gauge
 - liquid thermometer
 - wind sock.
19. In the solar system, the fourth planet from the sun is
- Mars
 - Uranus
 - Jupiter
 - Earth.
20. The following are characteristics of a certain animal:
- lays eggs;
 - breathes using lungs;
 - has a moist skin;
 - undergoes external fertilization.
- The animal described is most likely to be a
- lizard
 - bat
 - fish
 - frog.
21. Which one of the following animal feeds is classified as pasture?
- Lucerne.
 - Sorghum.
 - Hay.
 - Oats.
22. Which one of the following is an internal parasite?
- Tsetse fly.
 - Round worm.
 - Jigger.
 - Mite.

23. An example of a bird that feeds on grains is
 A. eagle
 B. dove
 C. duck
 D. sun bird.
24. Which one of the following is **not** a way of using water sparingly?
 A. Using a watering can.
 B. Repairing leaking pipes.
 C. Using drip irrigation.
 D. Turning off taps.
25. One of the disadvantages of hard water is that it forms fur in kettles which
 A. prevents convection of heat
 B. acts as an insulation
 C. makes the kettle rusty
 D. increases evaporation.
26. Which one of the following is a way of conserving water by reusing?
 A. Harvesting rain water.
 B. Cleaning the house with tap water.
 C. Watering plants with treated sewage water.
 D. Washing coffee berries using borehole water.
27. The disease that can be controlled by draining stagnant water is
 A. bilharzia
 B. cholera
 C. typhoid
 D. dysentery.
28. The following are some effects of soil erosion:
 (i) Small holes on the ground;
 (ii) Thin top layer of soil missing;
 (iii) V-shaped trenches on the ground;
 (iv) Small and shallow channels on the ground.

Which **two** effects are for gully and sheet erosion?

	Gully	Sheet
A.	iv	iii
B.	iii	ii
C.	i	iii
D.	iii	iv

29. Which one of the following takes the shortest time to release nutrients into the soil?
 A. Mulches.
 B. Farmyard manure.
 C. Green manure.
 D. Compost manure.
30. The following observations were made on different types of soil:
 (i) Spreads easily;
 (ii) Good for construction;
 (iii) Makes long ribbons;
 (iv) Good for farming;
 (v) Has good drainage.

Which observations are **correctly** matched to sand and clay soils?

Sand	Clay
A. (i)	(v)
B. (ii)	(iv)
C. (i)	(iii)
D. (iii)	(iv)

31. A child was diagnosed with the following signs and symptoms:
 (i) wrinkled face;
 (ii) wasted body muscles;
 (iii) general body weakness;
 (iv) crying a lot.

The child's condition can be corrected by providing adequate food that is

- A. rich in iron
 B. a balanced diet
 C. rich in proteins
 D. rich in vitamins.

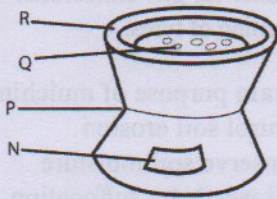
32. Which one of the following pairs of food preservation methods is **correctly** matched as modern and traditional?

Modern	Traditional
A. Smoking	Use of low temperature
B. Canning	Drying
C. Salting	Smoking
D. Use of low temperature	Use of honey

33. Which one of the following can cause food poisoning?
- Micro-organism.
 - Excess spices.
 - Excess cooking oil.
 - Less fibre in food.

34. Which one of the following pairs consist **only** of sources of chemical energy?
- Firewood and dynamo.
 - Dynamo and sun.
 - Firewood and battery.
 - Sun and battery.

35. The following diagram represents an improved jiko.

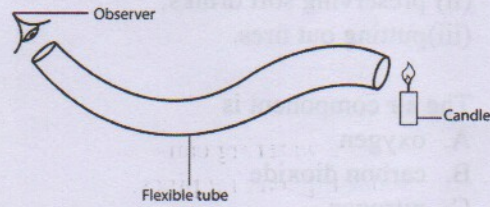


Which one of the following parts labelled **N, P, Q** and **R** minimizes heat loss?

- N
 - P
 - Q
 - R
36. In an experiment to investigate good and bad conductors of electricity, different materials were used and observations made. Which one of the following was likely to be a **correct** observation?

Material	Observation
A. Pin	bulb lights
B. Glass	bulb lights
C. Nail	bulb does not light
D. Coin	bulb does not light

37. The following diagram represents a setup that can be used to demonstrate a certain aspect of light.



The aspect investigated is

- refraction of light
- dispersion of light
- reflection of light
- how light travels.

38. In which one of the following pairs of materials is heat transferred through convection **only**?

- Glass and water.
- Iron rod and glass.
- Air and iron rod.
- Air and water.

39. Which one of the following is **not** a special sound? Sound from a

- siren
- crying child
- ringing bell
- scream.

40. The following are some of the ways used to light a house:

- electric bulbs;
- translucent roofs;
- windows;
- lamps.

The natural ways of lighting a house are

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

41. The following are uses of a certain component of air:

- (i) making plant food;
- (ii) preserving soft drinks;
- (iii) putting out fires.

The air component is

- A. oxygen
- B. carbon dioxide
- C. nitrogen
- D. inert gases.

42. Which one of the following pair of liquids are miscible?

- A. Water and kerosene.
- B. Cooking oil and milk.
- C. Water and cooking oil.
- D. Cooking oil and kerosene.

43. A certain form of matter has the following characteristics:

- (i) occupies space;
- (ii) has definite mass;
- (iii) has definite volume;
- (iv) has definite shape.

The characteristics are likely to be for

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

44. Which one of the following material sinks in water?

- A. Office pin.
- B. Wooden ruler.
- C. Plastic plate.
- D. Candle wax.

45. Which one of the following pairs of levers has the fulcrum between the load and effort?

- A. Spade and wheelbarrow.
- B. Wheelbarrow and crowbar.
- C. Crowbar and claw hammer.
- D. Spade and claw hammer.

46. Friction is an advantage when

- A. closing a door
- B. swimming
- C. sharpening a knife
- D. flying.

47. In a single fixed pulley, the effort used is

- A. almost equal to the load
- B. less than the load
- C. twice the load
- D. in the same direction as the load.

48. Which one of the following can pollute soil, water and air?

- A. Spilt oil.
- B. Aerosal sprays.
- C. Industrial gas emissions.
- D. Burning of tyres.

49. The **main** purpose of mulching is to

- A. control soil erosion
- B. conserve soil moisture
- C. kill weeds by suffocation
- D. add humus to the soil.

50. Which one of the following statements **correctly** describes the term environment?

- A. Home of a living thing.
- B. Surrounding of a living organism.
- C. Daily changes of the atmosphere.
- D. Interdependence between living things.