



Dec. 2022 – 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. 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 sheet as clean as possible and do not fold it.
8. 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.
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 Booklet:

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 8 printed pages.

© 2022 The Kenya National Examinations Council

507



317042



Turn over

1. Which one of the following describes deciduous teeth? They are

- A. milk teeth
- B. wisdom teeth
- C. permanent teeth
- D. artificial teeth.

2. Which one of the following develops immediately after fertilisation in human beings?

- A. Foetus.
- B. Embryo.
- C. Zygote.
- D. Placenta.

3. The function of the large intestine in the human digestive system is to

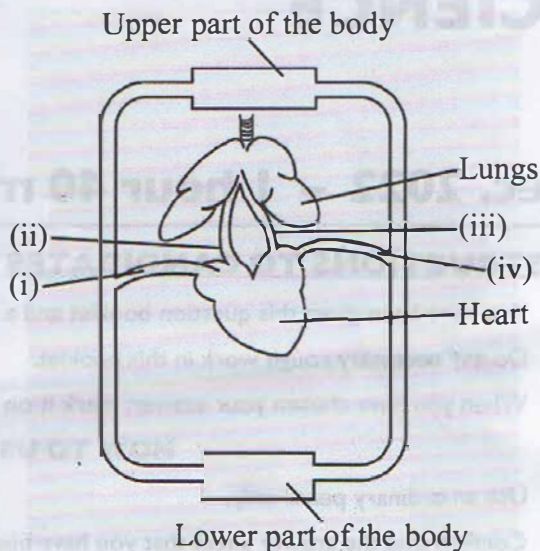
- A. store food
- B. absorb food
- C. absorb water
- D. produce bile.

4. Which one of the following is the **largest** component of the human blood?

- A. White blood cells.
- B. Red blood cells.
- C. Platelets.
- D. Plasma.

2

5. The diagram below represents a section of the human circulatory system.



Which one of the following correctly represents the blood vessels labelled (i), (ii), (iii) and (iv) respectively?

- A. Pulmonary vein, Aorta, Pulmonary artery, Vena cava
- B. Aorta, Pulmonary artery, Vena cava, Pulmonary vein
- C. Vena cava, Pulmonary artery, Pulmonary vein, Aorta
- D. Pulmonary artery, Vena cava, Pulmonary vein, Aorta

6. Which one of the following statements about HIV is **true**? HIV is

- A. treated through early vaccination
- B. prevented by bathing with soap
- C. spread through blood transfusion
- D. detected during the window period.

7. Which one of the following stores energy in the same way as a dry cell?

- A. Charcoal.
- B. Dynamo.
- C. Geothermal generator.
- D. Solar panel.

8. The following diseases are immunisable **except**

- A. tuberculosis
- B. bilharzia
- C. diphtheria
- D. typhoid.

9. The following are some ways of preventing common communicable diseases.

- (i) clearing bushes around the home
- (ii) covering the mouth when coughing
- (iii) isolating infected persons
- (iv) draining stagnant water

Which **two** are for preventing malaria?

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

10. The following are proper ways of storing medicines at home **except**

- A. locking them in a cupboard
- B. keeping them in a transparent container
- C. keeping them in a cool place
- D. labelling the containers.

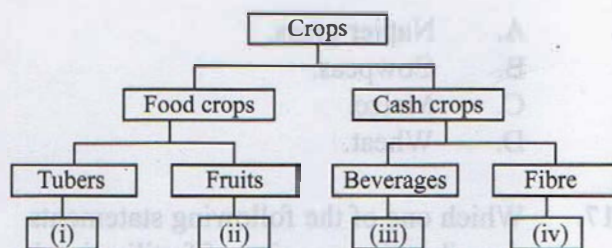
11. Which one of the following statements about gonorrhoea is **correct**? It causes

- A. a painful rash on the whole body
- B. production of pus from the urethra
- C. a sore on the penis
- D. irritation in the pubic area.

12. Which one of the following sets of conditions will make healthy seeds germinate?

- A. Warmth, carbon dioxide and moisture.
- B. Oxygen, carbon dioxide and light.
- C. Moisture, oxygen and warmth.
- D. Light, oxygen and moisture.

13. The chart below represents a simple classification of crops.



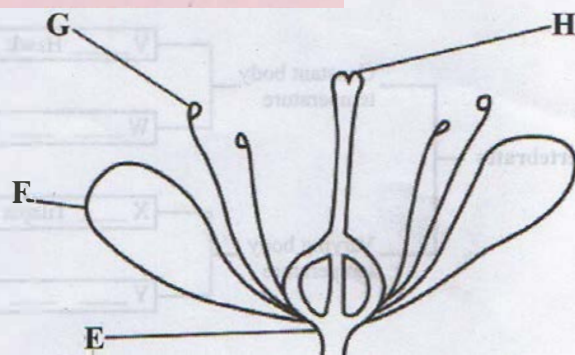
The crops represented by (i), (ii), (iii) and (iv) are

- | | | | |
|---------------|--------|-----------|------------|
| (i) | (ii) | (iii) | (iv) |
| A. Greengrams | Rice | Cocoa | Pawpaw |
| B. Carrots | Mango | Tea | Cotton |
| C. Cassava | Orange | Sunflower | Coffee |
| D. Sorghum | Peas | Cotton | Groundnuts |

14. Which one of the following is **not** an important consideration when giving medicine?

- A. The quantity to be taken.
- B. Date of manufacture.
- C. Duration of the dose.
- D. Taste of medicine.

15. The diagram below represents parts of a flower labelled E, F, G and H.



The part that receives pollen grains during pollination is

- A. E
- B. F
- C. G
- D. H

16. Which one of the following plants has the same type of roots as the bean plant?

- A. Napier grass.
- B. Cowpeas.
- C. Maize.
- D. Wheat.

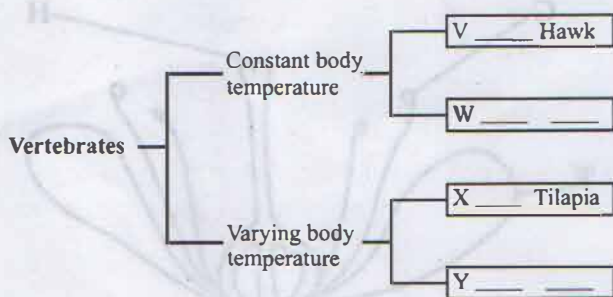
17. Which one of the following statements describes the meaning of fertilisation in plants? It is

- A. joining together of the male and female cells
- B. growing of the pollen tube to the ovary
- C. transfer of pollen by bees
- D. formation of a seed.

18. Which one of the following pairs of animal feeds consists **only** of pasture?

- A. Sorghum and sweet potato vines.
- B. Sorghum and desmodium.
- C. Sweet potato vines and star grass.
- D. Star grass and desmodium.

19. The chart below shows a simple classification of vertebrates into different groups.



Which of the following pairs of animals **correctly** represents the groups labelled W and Y.

- | | W | Y |
|----|---------|-------------|
| A. | Shark | crocodile. |
| B. | Newt | gecko. |
| C. | Chicken | toad. |
| D. | Whale | salamander. |

20. Which one of the following is common in fish, reptiles and amphibians?

- A. Presence of scales.
- B. Presence of gills.
- C. Varying body temperature.
- D. External fertilisation.

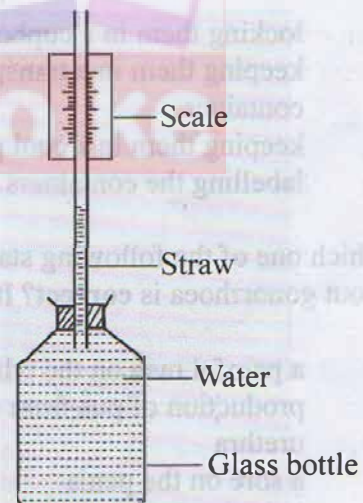
21. The diagram below represents part of a certain bird.



The bird most likely feeds on

- A. fish
- B. nectar
- C. insects
- D. seeds.

22. The diagram below represents an improvised liquid thermometer.



Which one of the following improvements would make the instrument measure smaller changes in temperature?

- A. a narrower straw.
- B. coloured water.
- C. a plastic bottle.
- D. a larger bottle.



23. A person was wearing a light shirt and open shoes. The weather conditions were likely to be

- A. cold and windy
- B. hot and windy
- C. cold and wet
- D. hot and dry.

24. Which one of the following pairs of sources of water will **only** provide hard water?

- A. Rain and well.
- B. Spring and boiler.
- C. Well and spring.
- D. Rain and river.

25. The following are activities that can help to conserve soil **except**

- A. ploughing down the hill
- B. mulching with dry grass
- C. planting sweet potato vines
- D. dumping vegetable waste in the gardens.

26. Which one of the following would a farmer use to store large volumes of water?

- A. Drum.
- B. Tank.
- C. Pot.
- D. Dam.

27. Which of the following consists **only** of a pair that can make pond water safe for drinking?

- A. Addition of chemicals and filtration
- B. Decantation and boiling.
- C. Boiling and addition of chemicals.
- D. Filtration and decantation.

28. Discolouring of white garments during washing can be minimised by using

- A. soapy borehole water
- B. warm rain water
- C. soapy spring water
- D. warm borehole water.

29. Which one of the following practices help to prevent the spread of cholera?

- A. Keeping cooked food covered.
- B. Wearing gumboots when working in a swamp.
- C. Washing hands after eating.
- D. Eating roasted maize by the roadside.

30. Deep trenches were observed on a farm on a hillside. The deep trenches were most likely due to

- A. splash erosion
- B. gully erosion
- C. rill erosion
- D. sheet erosion.

31. The soil in which water rises **least** also

- A. makes long ribbons
- B. is rich in minerals
- C. has large particles
- D. has smooth texture.

32. Which one of the following statements is **correct** about farmyard manure? They

- A. are made from plant and animal waste
- B. contain one micronutrient
- C. pollute the soil when in excess
- D. do not add organic matter to the soil.

33. Which one of the following groups consist only of food that are used in body building and repair?

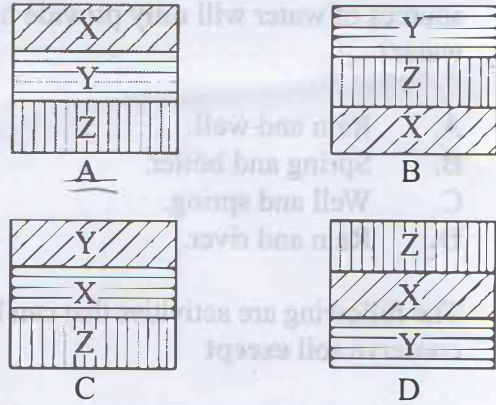
- A. Rice, oranges, beef.
- B. Wheat, fish, maize.
- C. Eggs, beans, milk.
- D. Beans, potatoes, groundnuts.



34. Which one of the following statements **correctly** describe smoking of meat?
The meat is
- dried using hot air over open fire
 - placed on a layer of salt
 - spread over hot charcoal
 - placed on a hot pan.
35. The main reason why a lactating mother needs a balanced diet and plenty of fluids is for
- formation of strong bones in the baby
 - protection of the baby against diseases
 - increasing the production of milk
 - replacement of blood lost during birth.
36. Which one of the following materials can allow a person to see through?
- Clear water.
 - Mirror.
 - Frosted glass.
 - Milk.
37. Pieces of paper placed over a fire move upwards because
- they are light
 - hot air rises
 - of radiation
 - of heat.
38. In which one of the following pair of processes is heat absorbed from the surroundings?
- Condensation and evaporation.
 - Freezing and condensation.
 - Melting and freezing.
 - Evaporation and melting.

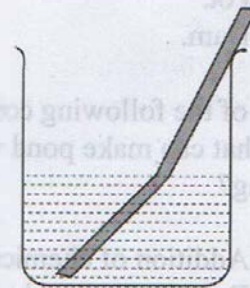
39. In an investigation liquid **X** was found to be denser than liquid **Y** but less dense than liquid **Z**. The three liquids are immiscible.

The diagram that represents the **correct** observation when the three liquids are put in the same container is



40. A bowl made of iron may float when placed on water because of the
- mass
 - shape
 - size
 - material.

41. The diagram below represents a demonstration of a certain property of light.

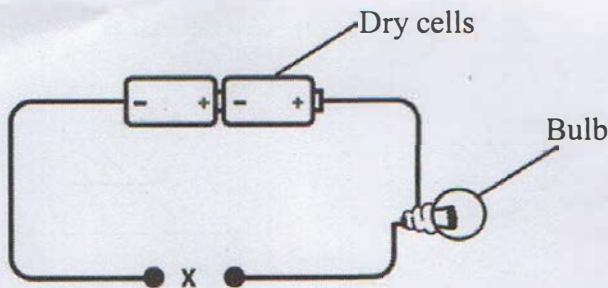


The diagram shows that light

- travels in a straight line
- bounces back
- can be split
- apparently bends.

42. In which one of the following pairs of activities is light used?
- A. Drying grains; making plant food
 - B. Making plant food; using a solar cooker
 - C. Using a solar cooker; drying grains
 - D. Keeping pests away; drying grains.

43. The diagram below represents a simple electrical circuit with a gap at X.



Which one of the following materials when used to close the gap would make the bulb to light?

- A. Biro pen casing.
 - B. Steel nail.
 - C. Glass rod.
 - D. Wooden rod.
44. Which one of the following statements describe energy?
- A. Ability to do work.
 - B. Moving objects from one point to another.
 - C. Pushing or pulling an object.
 - D. A force acting on an area.

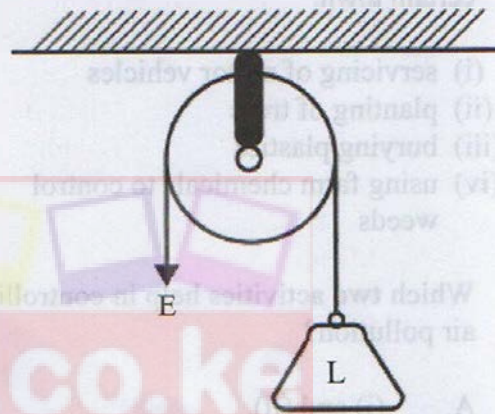
45. Which one of the following materials can be separated using a magnet?

- A. Piece of steel wool and flour.
- B. Cement and wood ash.
- C. Iron nails and steel pins.
- D. Salt and sugar.

46. When a school bell is rung, everybody in the school hears the sound. This is because sound

- A. travels in air
- B. produced is special
- C. is reflected by obstacles
- D. travels in all directions.

47. The diagram below illustrates working of a certain type of pulley.



The diagram shows that effort

- A. moves a longer distance than the load
- B. required is half that of the load
- C. moves in an opposite direction to that of the load
- D. and the load are not equal.



48. Which one of the following is **not** a method of maintaining simple tools?

- A. Proper storage.
- B. Sharpening.
- C. Cleaning before use.
- D. Proper use.

49. Which one of the following activities reduces friction?

- A. Re-treading tyres of motor vehicles.
- B. Streamlining shapes of objects.
- C. Drying moving parts of machines.
- D. Making a surface rough.

50. The following are activities observed in a certain town.

- (i) servicing of motor vehicles
- (ii) planting of trees
- (iii) burying plastics
- (iv) using farm chemicals to control weeds

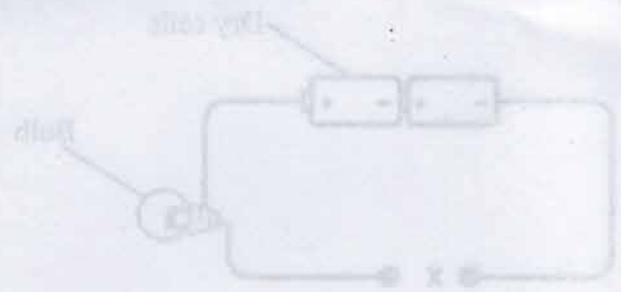
Which **two** activities help in controlling air pollution?

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

In which one of the following pairs of...

- A. Drying grains; making plant food
- B. Making plant food; using a solar cooker
- C. Using a solar cooker; drying grains
- D. Keeping pests away; drying grains

The diagram below represents a simple electrical circuit with a gap at X.



Which one of the following materials when used to close the gap would make the bulb to light?

- A. Iron pin
- B. Steel nail
- C. Glass rod
- D. Wooden pin

Which one of the following statements describe energy?

- A. Ability to do work.
- B. Moving objects from one point to another.
- C. Pushing or pulling an object.
- D. A force acting on an area.

676

4653

