

THE KENYA NATIONAL EXAMINATIONS BOARD

STANDARD SEVEN

SCIENCE

2021: 1 hour 40 minutes



DAY 2 8:00am - 9:40am

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.
- 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

- 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.
- 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) (B) (5 (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.

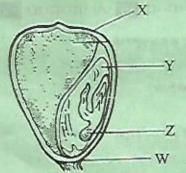
This Question Paper consists of 7 printed pages.



TURN OVER



- 1. Which one of the following is not a function of plasma?
 - A. Transporting heat around the body.
 - B. Carrying waste products to where they should be removed from the body.
 - C. Carrying oxygen from the lungs to all parts of the body.
 - D. Transporting carbondioxide to the lungs.
- 2. Three of the following are different types of soil erosion. Which one can be controlled by mulching?
 - A. Gulley erosion.
 - B. Splash erosion.
 - C. Rill erosion.
 - D. Sheet erosion.
- An organ in the digestive system which produces a juice that assists in the digestion of fats is called
 - A. liver
 - B. gall bladder
 - C. ileum
 - D. mouth
- 4. Which pair of teeth is used for biting and chewing food respectively?
 - A. Molars and canines.
 - B. Incisors and molars.
 - C. Pre-molars and molars.
 - D. Incisors and canines.
- 5. The diagram below shows a maize seed.



Which statement is true?

- A. X is the seed coat.
- B. Z is the plumule.
- C. W is the radicle.
- D. Y is the endosperm.

- 6. A patient was taken to the hospital with the following signs and symptoms:
 - (i) fever
 - (ii) pain in the joints
 - (iii) loss of appetite
 - (iv) sweating heavily at night

The patient was likely to suffer from

- A. Tuberculosis
- B. Malaria
- C. Typhoid
- D. Bilharzia
- 7. The following are recreational uses of water. Which one is not?
 - A. Swimming
 - B. Surfing
 - C. Skiing
 - D. Making a fountain.
- 8. The following are effects of a certain drug:
 - (i) Loss of memory
 - (ii) Liver cirrhosis
 - (iii) Hallucination
 - (iv) Sleeplessness

Which pair of effects are associated with excessive drinking of alcohol?

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

- A. Small fix petal.
- B. Having hairy stigma.
- C. Production of nectar.
- D. Having dull colour.

10. Which of the following is an effect of HIV and AIDS to a family?

- A. Lack of self esteem.
- B. Lack of parental love.
- C. Congestion in the hospital.
- D. Lack of skilled personnel.

11. Which set of food mainly consists of a balance diét?

- A. Beans, carrots, chapati
- B. Beef, ugali, green gram
- C. Eggs, spinach, onions
- D. Rice, cabbage, watermelon

 The following are effects of pests on crops except

- A. transmission of diseases to other crops.
- B. reduction in quality of produce.
- C. increase in the crop yield.
- D. causing disease to the consumers.

13. The following planets move round the sun from West to East except

- A. Venus
- B. Jupiter
- C. Neptune
- D. Mercury

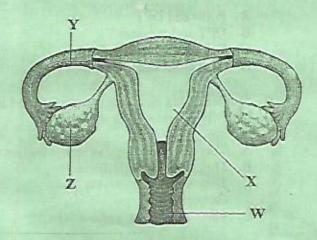
 The chart below shows a feeding relationship in a certain habitat.

Maize→ Cutworm → Aphids → Birds

Which one of the following terms can be used to describe birds?

- A. Tertiary consumers
- B. Primary consumers
- C. Secondary consumers.
- D. Producers

The diagram below shows a human reproductive system.



The fusion of both male and female sex cells takes place in the part marked

- A. W
- B. X
- C. Z
- D. Y

16. Human intestinal worms can be controlled by all the following methods. Which one does not?

- A. Drinking boiled or treated water.
- B. Cooking food properly.
- C. Rotational grazing.
- D. Washing foods that are eaten raw.

17. Clouds that indicate fine weather also

- A. bring heavy rainfall.
- B. cover the whole sky.
- C. are dark grey in colour.
- D. are found high in the sky.

- A. Polio and DPT
- B. DPT and measles
- C. BCG and Anti measles
- D. Oral polio vaccine of BCG

 The following characteristics are found in both tilapia and snakes except

- A. They both have scales on the bodies.
- B. They both lay unfertilized eggs.
- They both have varying body temperature.
- D. They both move without legs.

20. Which one of the following is not a major component of the environment?

- A. Soil
- B. Air
- C. Water
- D. Sound

21. Which set of parasites can be controlled by dipping or spraying?

- A. Ticks, mites, hookworms, lice
- B. Worms, flukes, fleas, mites
- C. Ticks, lice, mites, fleas
- D. Tsetseflies, lice, fleas, flukes

22. Which of the following mixtures cannot be separated either by dissolving, filtering and evaporation?

- A. Iron fillings and sugar.
- B. Sand and salt.
- C. Maize flour and iron fillings.
- D. Sugar and salt.

23. Force is measured in

- A. grams
- B. tonnes
- C. kilograms
- D. newtons

24. Which one of the following crops store its food the same way as the one below?



- A. Irish potato
- B. Onions
- C. Swret potato
- D. Cassava

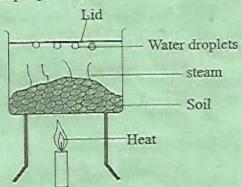
25. A boat floats on water because of its

- A. material
- B. shape
- C. weight
- D. size

26. The following are importance of lighting a house. Which one is not?

- A. Discouraging pests.
- B. Reading comfortably.
- C. Warming ourselves.
- D. Avoiding accidents.

27. The set up was carried out by std 5 pupils of Karapul primary school.



Which component of soil were they trying to investigate?

- A. Particles in the soil.
- B. Organic matter in the soil.
- C. Living organisms in the soil.
- D. Moisture in the soil.

- A. refraction of light.
- B. reflection of light.
- C. dispersion of light.
- D. refraction of the coin.

29. Pressure exerted by liquids decreases by

- A. volume
- B. depth
- C. height
- D. surface area

30. Clay soil has the highest capillarity. This is due to

- A. its colour.
- B. its texture.
- C. amount of air in it.
- D. the size of its particles.

31. The following are ways of reducing friction except

- A. streamlining bodies.
- B. use of rollers.
- C. use of lubricants.
- D. use of treads.

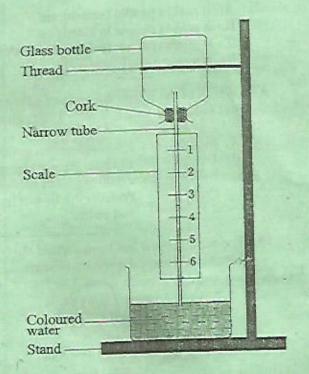
32. Which one of the following is not a compound fertilizer?

- A. Calcium Ammonium Nitrate (CAN)
- B. Diammonium phosphate (DAP)
- C. Muriate of Potash.
- D. Triple superphosphate (TSP)

33. What is the main function of cartilages in the trachea?

- A. To keep the windpipe open always.
- B. To trap dust and germs.
- C. To kill germs in the air during breathing.
- D. To help in exchange of gases.

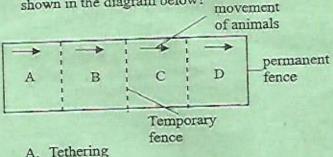
34. The diagram below shows an improvised weather instrument.



What will happen to the level of coloured water in the straw when the instrument is placed under a shade?

- A. It will drop.
- B. It will rise.
- C. It will remain the same.
- D. It will rise and then drop.

35. Which of the following grazing method is shown in the diagram below?



- A. Tethering
- B. Paddocking
- C. Strip grazing
- D. Stall feeding

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- 36. Which of the following is not an effect of sound pollution?
 - A. It makes people concentrate.
 - B. It makes people irritated.
 - C. It makes people feel uncomfortable.
 - D. It makes people less alert.
- 37. Which of the following parts of a flower is not correctly matched with its function?
 - A. Stigma B. Ovules

Receives pollen grains.

Produce female sex cells.

C. Anthers D. Petals Produce pollen grains.

Protects the flower in the

- bud stage.
- 38. The set up below has been carried out by std 5 pupils at Nyajuok primary school.



Which process were the pupils investigating?

- A. Absorption in plants.
- B. Photosynthesis in plants.
- C. Transport in plants.
- D. Transportation in plants.

- 39. Which one of the following is most dangerous stage of HIV and AIDS development?
 - A. Symptomatic stage.
 - B. Full blown stage.
 - C. Window stage.
 - D. Incubation stage.
- 40. Which of the following pairs consists of useful animals?
 - A. Cat and termite
 - B. Donkey ant rat
 - C. Cat and dog
 - D. Donkey and snake
- 41. The following substances are produced by tobacco. Which one causes addiction?
 - A. Carbonmonoxide
 - B. Tar
 - C. Carbondioxide
 - D. Nicotine
- 42. The diagram below shows a certain type of weed.



Which one of the following is the most appropriate method of controlling it?

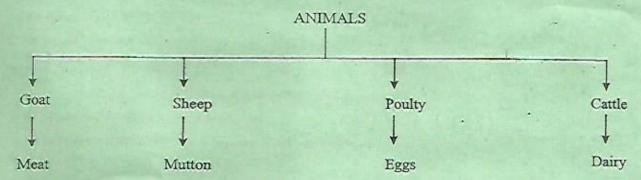
- A. Mulching
- B. Use of herbicides
- C. Uprooting
- D. Digging it out

- 43. Which of the following is a sign and symptom of a child suffering from Kwashiokor?
 - A. Wrinkled face.
 - B. Swollen face and hands.
 - C. Visible bones beneath the skin.
 - D. Weak bones that break easily.
- Animals feeds that are conserved while still green are referred to as
 - A. pasture
 - B. concentrates
 - C. hay
 - D. silage
- 45. Heat from the sun reaches the earth through
 - A. radiation
 - B. conservation
 - C. conduction
 - D. convection and radiation.
- 46. Materials that allow some light to pass through them but you cannot see through them clearly are known as
 - A. opaque materials.
 - B. transparent materials.
 - C. translucent materials.
 - D. frosted glasses.

- 47. The following materials were collected by std 6 pupils to investigate drainage in soil:
 - (i) funnel
 - (ii) soil
 - (iii) water
 - (iv) cotton wool
 - (v) collecting jar

Which of the following should not be the same?

- A. Amount of water.
- B. Amount of soil.
- C. Amount of cotton wool.
- D. Type of soil.
- 48. Which of the following materials have no definite shape but have definite volume?
 - A. Milk and oxygen
 - B. Sand and kerosene
 - C. Soda and petrol
 - D. Rice and wheat flour
- 49. Which of the following ways of maintaining simple tools is not carried out on all tools?
 - A. Proper storage.
 - B. Cleaning after use.
 - C. Proper use.
 - D. Oiling moveable parts.
- The chart below shows classification of farm animals and their products.



Which animal is incorrectly matched with its product?

- A. Goat
- B. Poultry
- C. Cattle
- D. Sheep

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