

**SCIENCE**

**Time: 1 hour 40 minutes**

**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.
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 your answer 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, D. In each case only **ONE** of the four answers is correct. Choose the correct answer.
10. On the answer sheet the correct answer is to be shown by drawing a **dark line** inside the box in which the letter you have chosen is written.

**Example**

**In the Question Booklet:**

- 21.** Njagi lives with his mother in Mwea rice settlement schemes. Which of these diseases is he **NOT** likely to suffer from frequently?
- A. Cholera
  - B. Typhoid
  - C. Tuberculosis
  - D. Bilharzia

The correct answer is "C".

**On the answer sheet:**

**21.** [A] [B] [C] [D]   **22.** [A] [B] [C] [D]   **23.** [A] [B] [C] [D]   **24.** [A] [B] [C] [D]   **25.** [A] [B] [C] [D]

In the set of boxes numbered **21**, the box with the letter C 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.**

1. The following are functions of amniotic fluid **EXCEPT** one. Which one is it?
- A. to allow free movement of the foetus
  - B. to absorb shock
  - C. to allow free movement of food and oxygen from the mother to the foetus.
  - D. to prevent friction between the foetus and the uterus.

2. Many fish have a swim bladder in their bodies. The swim bladder enables the fish to
- A. Swim quickly in water.
  - B. Sense any danger while in water.
  - C. Control its floating in water.
  - D. Dive and escape its enemies.

3. The lightening observed in the sky on a stormy day is caused by
- A. Collision between two clouds.
  - B. A violent explosion of gases in the sky.
  - C. A collision between a cloud and the sky.
  - D. An electrical discharge between charged water droplets.

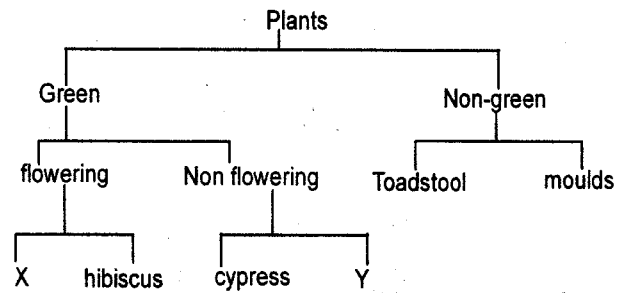
4. Std. 5 pupils in Gacuuri Primary school collected the following materials.
- (i) two bottles
  - (ii) A straw
  - (iii) Coloured water
  - (iv) Manilla paper
  - (v) Cellotape

Which instrument did they make?

- A. A liquid thermometer.
- B. A barometer.
- C. An air thermometer.
- D. A dry and wet bulb thermoeter.

5. Mwiti ate marshed beans and kales. Which one among the following digestive juices digested the food?
- A. Saliva
  - B. Bile juice
  - C. Hydrochloric acid
  - D. Gastric juice

6. The chart below shows a simple classification of plants.



Which plants are represented by letters X and Y.

- |          |          |
|----------|----------|
| <b>X</b> | <b>Y</b> |
| A. Moss  | Mucor    |
| B. Pine  | Onion    |
| C. Cedar | Pea      |
| D. Pea   | Algae    |

7. It is easier to go up the stairs than to use a ladder because:-

- A. Stairs are firmer than the steps of the ladder
- B. Less force is exerted in climbing the stairs.
- C. A ladder can easily fall off.
- D. Stairs are usually made of stone.

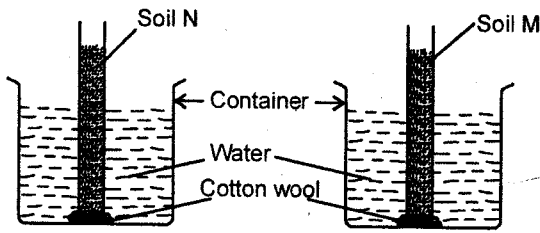
8. Std. 8 pupils in Nkunyini primary school found a piece of metal in a science laboratory. They wanted to find out if it was a magnet. Which one of the following could **NOT** help them find out?

- A. Attraction of the metal and a magnet.
- B. Attraction of the metal and iron pins.
- C. Repulsion of the metal and a magnet.
- D. the resting of the metal to a North-South direction when suspended.

9. Campaign against HIV/AIDS can be done through the following ways **EXCEPT**?

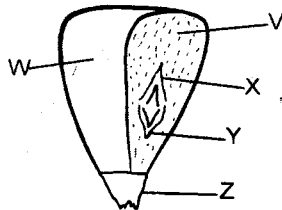
- A. Conducting HIV/AIDS test during interview
- B. Creating public awareness during church services.
- C. Educating the masses even at funeral meetings.
- D. Advertising the scourge through different media components.

10. The set up shown in the diagram below was used to investigate how water moves up in different types of soil.



Which of the following need **NOT** be the same in the set up?

- A. Size of glass tubes.  
 B. Size of container.  
 C. Amount of soil.  
 D. Amount of cotton wool.
11. Tail feathers in birds act as
- A. Steering wheel  
 B. Brakes  
 C. Propeller  
 D. Running gear
12. The diagram below represents a maize grain cut lengthwise.



Which one of the following pairs of parts marked V, W, X, Y and Z make up the embryo?

- A. V and Y  
 B. W and Z  
 C. X and Y  
 D. V and W
13. A child had the following signs.
- (i) Pale skin  
 (ii) Whitish palm and fingers  
 (iii) Getting tired.  
 (iv) Getting out of breath

The child was mostly suffering from.

- A. Anaemia  
 B. Marasmus  
 C. Kwashiokor  
 D. Constipation

14. Which one of the following animal feeds comprises of conserved feeds only.

- A. dairy meal and silage  
 B. hay and fodder  
 C. hay and silage  
 D. chick mash and pasture

15. A single fixed pulley makes work easier by:

- A. changing direction of effort.  
 B. decreasing load distance.  
 C. increasing the load distance.  
 D. decreasing effort distance.

16. The following are signs of a certain S.T.I

- (i) Sore on the penis  
 (ii) Pus filled bulge known as bubo  
 (iii) Fever and swelling glands.

Which disease is described.

- A. Gonorrhoea  
 B. Chancroid  
 C. HIV/AIDS  
 D. Syphilis

17. Which one of the following is **TRUE** about both evaporation and melting? Both:-

- A. take place at all temperatures.  
 B. absorb heat  
 C. are forms of energy.  
 D. loose heat to the surrounding.

18. Which of the following statements is **INCORRECT**?

- A. Pluto is the smallest planet.  
 B. Venus is the brightest planet.  
 C. Saturn has three flat rings around it.  
 D. Jupiter is the biggest planet.

19. The sharp spines in desert growing plants is an adaptation **MAINLY** for prevention of:

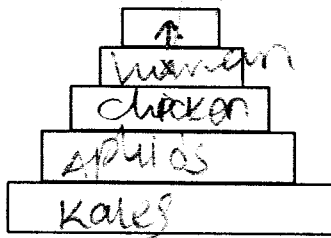
- A. Wilting  
 B. Browsing by desert animals  
 C. Dorminancy  
 D. Stunted growth

20. Livestock diseases affect animal products. Which one of the following is **NOT** an effect of livestock diseases?
- A. Less yield
  - B. Low quality
  - C. Deformed egg shells
  - D. Low nutritive value

21. Class seven pupils in Kiriani Primary school visited a farm near their school. They found the farmer putting some dry grass around the base of his crops. The following are good reasons for this practise **EXCEPT**.
- A. to prevent soil erosion
  - B. to encourage water logging.
  - C. to conserve moisture
  - D. to prevent growth of weeds

22. Which one of the following is **NOT** carried by blood plasma?
- A. Carbon dioxide
  - B. Food
  - C. Urea
  - D. Oxygen

23. Study the foodchain below.  
Kales → Aphids → Chicken → Human beings.  
Which **ONE** can be put at x in the pyramid?



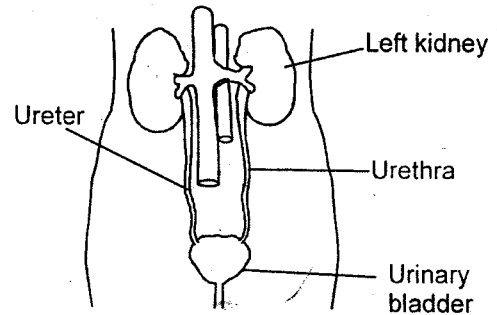
- A. Chicken
- B. Human beings
- C. Aphids
- D. Kales

24. Which one of the following is **NOT TRUE** about khat and bhang?
- A. They both affect the nervous system.
  - B. They are both prohibited drugs.
  - C. They are both from plant material.
  - D. They are both addictive drugs.

25. The type of manure where growing crops are chopped into smaller pieces and ploughed into the soil is known as \_\_
- A. farmyard manure
  - B. compost manure
  - C. crops manure
  - D. green manure

26. Heat can move from one corner of the house to another through
- A. Radiation
  - B. Diffusion
  - C. Conduction
  - D. Convection

27. Below is a diagram of the urinary tract drawn and labelled by a pupil



The part **WRONGLY** labelled is:-

- A. Left kidney
- B. Urethra
- C. Urinary bladder
- D. Ureter

28. In which one of the following processes is oxygen given out.
- A. Respiration
  - B. Germination
  - C. Photosynthesis
  - D. Combustion

29. The following are methods of conserving energy **EXCEPT**?
- A. Using energy sparingly
  - B. Using energy with efficient devices
  - C. Using kerosene instead of charcoal to conserve forests.
  - D. Using renewable energy.

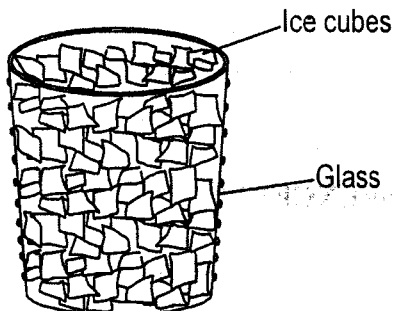
30. Which one of the following is **NOT** a use of water in industries?
- A. Processing coffee ✓
  - B. Removal of wastes ✓
  - C. For game fishing
  - D. Preparation of mineral water.

31. Which one of the following is **NOT** a way in which plants depend on each other.
- A. Food ✓
  - B. Support ✓
  - C. Shade ✓
  - D. habitat ✓

32. Why should a lactating mother drink a lot of milk?
- A. to get enough minerals for herself and the baby. ✗
  - B. to produce enough wholesome milk for the baby. ✗
  - C. to prevent herself from opportunistic diseases. ✗
  - D. to take in enough fats to give her enough energy. ✗

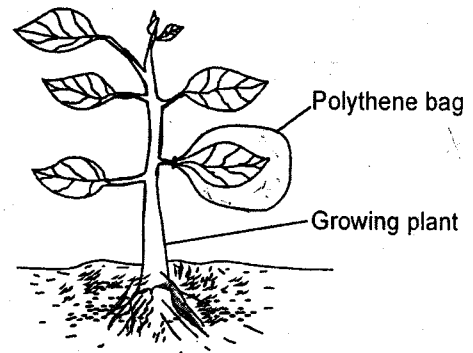
33. Which one of the following is **LEAST** effective in controlling air pollution in a town?
- A. Driving vehicles with well maintained engines.
  - B. Not smoking cigarettes
  - C. Not burning tyres and plastics
  - D. Reduced use of farm chemicals

34. Ice cubes were placed in a dry glass as shown



- The experiment was meant to show that;
- A. water exists in various states. ✓
  - B. ice can become water. ✓
  - C. there is moisture in the atmosphere. ✗
  - D. ice and cold conditions produce water. ✗

35. The diagram below represents an experiment carried out by class 5 pupils.

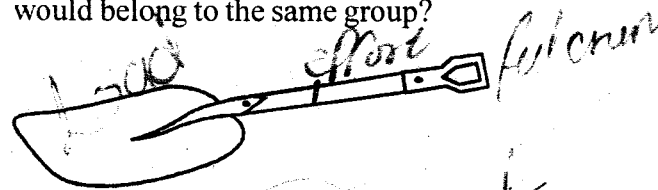


The pupils were investigating:-

- A. making of food by plants
- B. effect of heat on plants
- C. causes of wilting in plants
- D. loss of excess water by plants.

36. Which one of the following is **NOT** a characteristic of insect pollinated flowers?
- A. presence of nectaries
  - B. green coloured sepals
  - C. scented ✓
  - D. brightly coloured petals

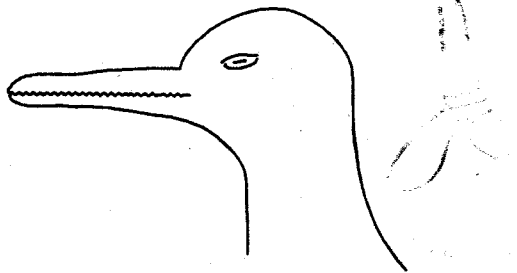
37. The diagram below represents a lever in use. Which one of the following groups would belong to the same group?



- A. Nail cutter, coal tongs, brooms.
- B. Fishing rod, cranes, stapling machine.
- C. Bottle opener, hammer, tweezers.
- D. Forceps, tin opener, door hinges.

38. Std four pupils in Keria Victors Academy were investigating floating and sinking. They found that some objects sink in water while others float. Which one of the following is a **TRUE** statement of the conclusions they made.
- Size is one of the factors affecting floating and sinking.
  - The objects that sink had more force than the force of water.
  - All big objects sink and small objects float.
  - Shape does not affect floating and sinking.

39. During a nature walk, std 8 pupils in Glad Toto primary school observed and drew a birds beak as follows.



They classified the bird as a

- Grain eater
  - Flesh eater
  - Nectar eater
  - Filter feeder
40. The purpose of the rings in the trachea is to;
- keep the trachea open always
  - trap air
  - give the trachea shape
  - clean the air
41. Different materials conduct electricity and heat differently. Which of the following is a good conductor of electricity and heat?
- Rubber
  - Water
  - Metal
  - Wood

42. Which one of the following fuels **LEAST** pollutes the environment?

- Kerosene
- Firewood
- Biogas
- Charcoal

43. Which **ONE** of the following groups of animals consists of members with similar characteristics?

- Butterfly, praying mantis, spider.
- Housefly, bee, lady bird
- Termites, grasshopper, scorpion
- Ant, moth, thick

44. All the following are ways in which friction can be reduced on moving parts of machinery **EXCEPT**?

- Oiling and greasing the parts.
- Painting the movable parts
- Using ball bearing.
- Using rollers.

45. One of the following statements is **NOT** true. Which one?

- Water is the largest component of the environment.
- Green plants take in oxygen and give out carbon dioxide as a by-product at night.
- Plants benefit in exchange of oxygen from animals.
- Insectivorous plants use their modified leaves to trap insects.

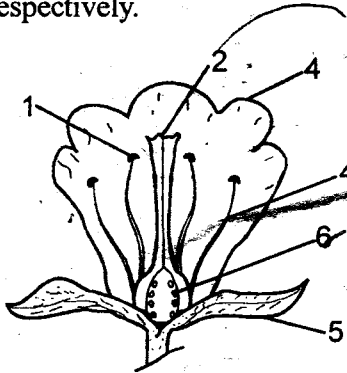
46. Flora put some garden soil in a jar of water. She shook it and left it to settle. Which of the following was **NOT** her observation?

- Humus under water.
- Heavy clay over fine sand.
- Fine clay under water.
- Gravel under heavy sand.

47. Kinoti put sugar in a glass of cold water and then stirred it until no more sugar could dissolve. What else could he do to make more sugar dissolve in the solution?
- A. Reduce the amount of sugar already added to the solution.
  - B. Remove a little water then stir
  - C. Raising the temperature of the water.
  - D. Mixing it using two glasses.

48. In which of the following would friction be needed?
- A. Pushing a wheelbarrow with coffee bags.
  - B. Closing a door.
  - C. Using a rusty pair of scissors to cut a piece of cloth.
  - D. Driving a vehicle along a muddy road.

49. Fertilization is the fusion of male and female gametes of a flower. These male and female gametes can be found at \_\_\_\_\_ and \_\_\_\_\_ respectively.



- A. 2 and 6
- B. 6 and 1
- C. 6 and 2
- D. 1 and 6

50. The presence of water vapour in exhaled air can best be detected by breathing
- A. out quickly.
  - B. on a piece of clear glass.
  - C. out through the nose.
  - D. on the palm of the hand.