



**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 is the third stage of HIV/AIDS infection?
- A. Symptomatic.
  - B. Window.
  - C. Full blown.
  - D. Incubation.

The correct answer is A.

**On the answer sheet:**

**4** [A] [B] [C] [D] **14** [A] [B] [C] [D] **24** [A] [B] [C] [D] **34** [A] [B] [C] [D] **44** [A] [B] [C] [D]

In the set of boxes numbered 4, the box with the letter A printed in it is marked.

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

This Question Paper consists of 7 printed pages and 1 blank page.



1. The diagram below represents a certain type of human tooth.

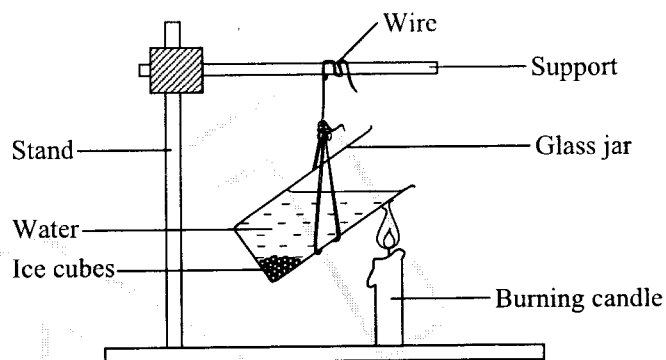


The tooth represented is

- A. canine.  
B. molar.  
C. incisor.  
D. premolar.
2. Bronchioles in the human breathing system are located in the
- A. lungs.  
B. nose.  
C. diaphragm.  
D. trachea.
3. At birth an infant is immunised **mainly** against
- A. tuberculosis only.  
B. tuberculosis and pertussis.  
C. tuberculosis and poliomyelitis.  
D. poliomyelitis only.
4. To move a stationary object a force is applied to overcome
- A. inertia.  
B. friction.  
C. weight.  
D. gravity.
5. Which one of the following parts of the human digestive system is **correctly** matched with its function?

Part	Function
A. Small intestines	Absorbs water.
B. Large intestines	Stores undigested food.
C. Rectum	Completes digestion of food.
D. Stomach	Produces enzymes.

6. The diagram below represents a set-up that can be used to investigate a certain aspect of heat energy.

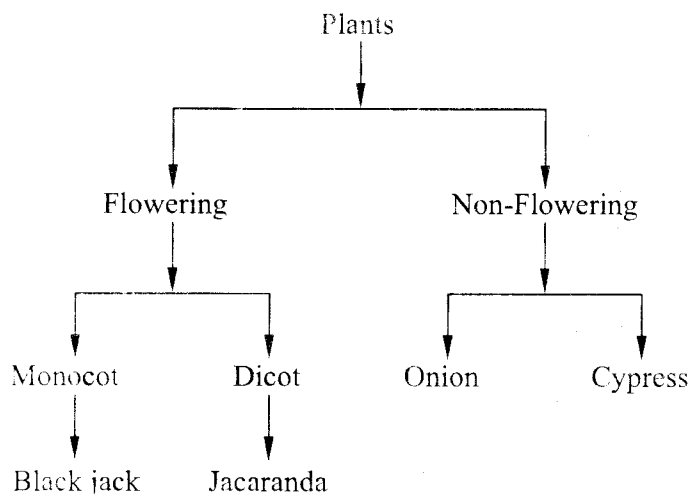


The aspect investigated is

- A. convection of heat in water.  
B. water is a poor conductor of heat.  
C. water changes state when heated.  
D. ice melts when heated.
7. Which one of the following pairs of fertilizers is **correctly** classified into straight and compound fertilizers?
- | Straight fertilizer       | Compound fertilizer      |
|---------------------------|--------------------------|
| A. Diammonium phosphate   | Sulphate of Ammonia.     |
| B. Muriate of potash      | Double Super phosphate.  |
| C. Sulphate of potash     | Mono Ammonium phosphate. |
| D. Triple Super phosphate | Diammonium sulphate.     |
8. Plants depend on soil **mainly** for
- A. shade and decomposition.  
B. support and decomposition.  
C. water and nutrients.  
D. support and nutrients.
9. Pupils observed bottles filled with water and placed close to each plant in a nearby vegetable farm. Which method of water conservation was being practised in the farm?
- A. Using water sparingly.  
B. Re-using water.  
C. Water harvesting.  
D. Recycling water.

10. The importance of water in the human diet is **mainly** to
- prevent constipation.
  - help in removal of waste products.
  - prevent deficiency diseases.
  - provide nutrients.
11. The following are some characteristics of certain vertebrates:
- lay fertilized eggs.
  - have scales.
  - breathe through lungs.
  - do not suckle young ones.
- Which one of the following pairs of vertebrates has all the characteristics listed?
- Reptiles and birds.
  - Birds and fish.
  - Amphibians and reptiles.
  - Fish and amphibians.
12. The following are signs of ill health in crops **except**
- wilting.
  - malformed plant parts.
  - colour of leaves.
  - leaf curling.
13. In which one of the following are the uses of the components that make up 0.03% and 21% of air **correctly** matched?
- | 0.03%                | 21%                |
|----------------------|--------------------|
| A. Burning           | Photosynthesis.    |
| B. Germination       | Putting out fires. |
| C. Breathing         | Burning.           |
| D. Putting out fires | Germination.       |
14. Which one of the following is **not** drug abuse?
- Taking prescribed medicine for a long time.
  - Taking less of the prescribed medicine.
  - Using the medicine for a wrong sickness.
  - Taking an overdose of a prescribed medicine.

15. The chart below represents a simple classification of plants.



Which one of the following pairs of plants is **not** correctly classified?

- Jacaranda and cypress.
  - Black jack and cypress.
  - Jacaranda and onion.
  - Black jack and onion.
16. A child with pale skin, rapid heartbeat and a feeling of dizziness should be given a diet rich in
- proteins.
  - vitamin D.
  - iron.
  - calcium.
17. Which one of the following materials is magnetic?
- Copper wire.
  - Office pin.
  - Pencil lead.
  - Silver coin.
18. Which one of the following statements is **correct** about handling chemicals used at home?
- Spraying chemicals where there is sufficient ventilation.
  - Keeping chemicals in a food store away from children.
  - Throwing empty chemical packets in a compost pit.
  - Storing chemicals in sealed juice bottles.

19. The following are signs of attack by parasites in livestock:

- (i) restlessness.
- (ii) anaemia.
- (iii) irritation.
- (iv) enlarged stomach.

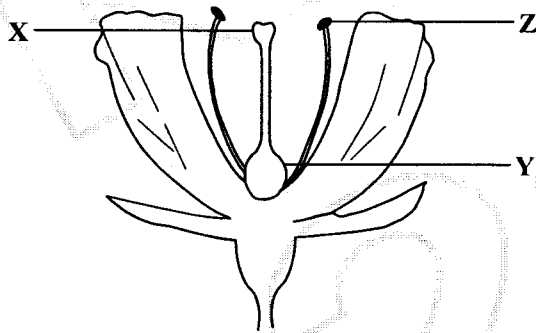
Which one of the following pairs can be signs of attack by internal parasites?

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

20. HIV is **least** likely to be transmitted through

- A. blood.
- B. sweat.
- C. breast milk.
- D. saliva.

21. The diagram below represents some parts of a flower.



Pollination takes place when reproductive cells are transferred from

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

22. In which one of the following are **both** changes during adolescence **correctly** grouped as emotional and physical?

- | Emotional                 | Physical                |
|---------------------------|-------------------------|
| A. Voice deepens          | Pubic hair grows.       |
| B. Moodiness              | Worry about pimples.    |
| C. Worry about pimples    | Releasing of sex cells. |
| D. Releasing of sex cells | Moodiness.              |

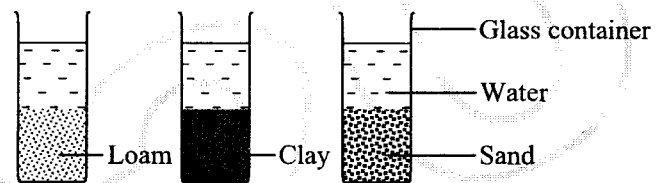
23. Which one of the following pairs of livestock parasites can be controlled by **either** rotational grazing **or** de-worming?

- A. Ticks and tapeworms.
- B. Liver flukes and fleas.
- C. Ticks and tsetse flies.
- D. Liver flukes and tapeworms.

24. Which one of the following methods conserves soil by **mainly** improving its fertility and preventing soil erosion?

- A. Cover crops.
- B. Terracing.
- C. Contour ploughing.
- D. Mulching.

25. The set-up shown below was used by pupils to carry out an investigation on soil.



The investigation was to

- A. compare the air content in different types of soil.
- B. show the composition of different types of soil.
- C. compare drainage in different types of soil.
- D. show how different types of soil retain water.

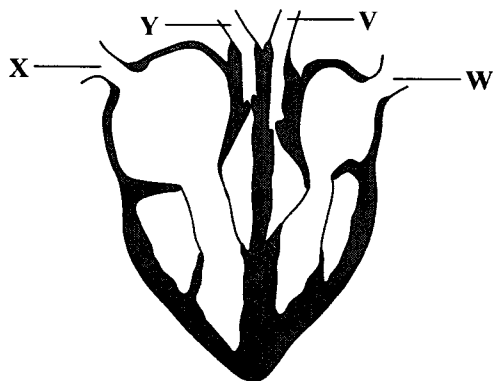
26. The **most** effective control measure against HIV transmission in society is

- A. abstinence from sex by youth.
- B. public awareness on HIV/AIDS.
- C. transfusing screened blood.
- D. avoiding drug abuse.

27. The term habitat can **best** be described as

- A. the surrounding of a living organism.
- B. where a living organism obtains food from.
- C. the home of a living organism.
- D. where a human being lives.

28. The diagram below represents a mammalian heart.



Blood to the lungs flows through the blood vessel labelled

- A. V.  
B. W.  
C. X.  
D. Y.
29. Which one of the following commonly abused drugs has the **worst** effect on the user?
- A. Heroin.  
B. Tobacco.  
C. Alcohol.  
D. Glue.
30. The following are some of the materials that were provided to pupils for making a certain weather instrument:
- (i) manila paper.  
(ii) glass bottle.  
(iii) water.  
(iv) biro pen tube.  
(v) plasticine.

Which one of the following materials was missing?

- A. Nail.  
B. Ink.  
C. Strong string.  
D. Cardboard.

31. Which one of the following pairs of uses of water is practised in the farm?

- A. Washing toilet and watering plants.  
B. Mixing chemicals and making pulp.  
C. Cleaning implements and mixing chemicals.  
D. Washing cars and cleaning implements.

32. An example of a lever that can work **either** with the fulcrum between the load and effort **or** with the load between the fulcrum and effort is a

- A. spade.  
B. claw hammer.  
C. wheelbarrow.  
D. crowbar.

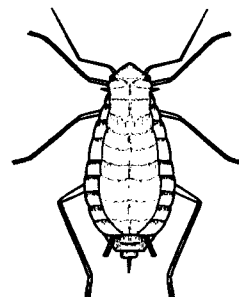
33. Oil spillage causes water pollution by

- A. increasing growth of harmful organisms.  
B. reducing amount of dissolved mineral salts.  
C. reducing amount of dissolved oxygen.  
D. increasing solid impurities.

34. Pupils went for a nature walk and observed a plant with small white flowers, small reddish-yellow fruits and is used as a vegetable. The plant observed was likely to be

- A. Black nightshade.  
B. Pigweed.  
C. Wandering jew.  
D. Mexican marigold.

35. The diagram below shows a certain crop pest.



The pest belongs to the same group as

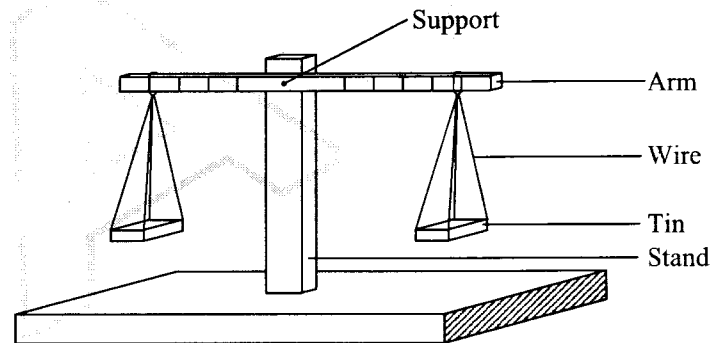
- A. white ants and stalk borers.  
B. stalk borers and cutworms.  
C. mice and white ants.  
D. weevils and mice.

36. Which one of the following teeth problems is as a result of lack of protective food in the human diet?
- Bleeding gums.
  - Dental cavities.
  - Tooth decay.
  - Bad smell.
37. Which one of the following is a preventive measure against the spread of bilharzia?
- Drinking filtered water.
  - Treating infected persons.
  - Washing hands after visiting a toilet.
  - Proper disposal of human waste.
38. The following activities were done by pupils during a thunderstorm:
- Squatting on the ground away from tall trees.
  - Using an umbrella on the footpaths.
  - Wearing rubber shoes on the playing field.
  - Leaning against the classroom walls.
- Which **two** are recommended to avoid being struck by lightning?
- (i) and (iv).
  - (ii) and (iv).
  - (ii) and (iii).
  - (i) and (iii).
39. In a certain activity, pupils were asked to listen as an aircraft was flying overhead their classroom. This was to investigate
- direction of sound.
  - amplification of sound.
  - meaning of special sounds.
  - effects of sound pollution.
40. The **best** procedure of separating a mixture of chalk powder and salt is
- dissolving, filtering, evaporating.
  - sieving, dissolving, evaporating.
  - dissolving, decanting, evaporating.
  - winnowing, dissolving, evaporating.

41. The following practices for maintaining simple tools would help to make work easier **except**

- proper storage.
- sharpening.
- proper use.
- greasing.

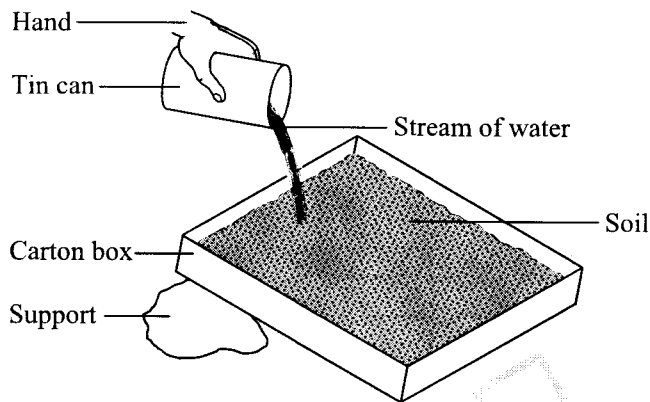
42. Pupils constructed a simple machine shown below.



The machine would not work efficiently if pupils

- used tins of the same size.
  - had the support tightly fixed to the arm.
  - suspended the tins at different distances from the support.
  - had the stand fixed to the ground.
43. Which one of the following statements about hard water is **not** correct? Hard water
- forms scale in water pipes.
  - requires a lot of soap for washing.
  - can cause bleaching of clothes.
  - can be softened by boiling.
44. On a certain day early in the morning, a pupil noticed a bright heavenly object that was not twinkling. In the evening the pupil noticed another heavenly body with similar characteristics. The heavenly bodies were likely to be
- Venus and Jupiter.
  - Mars and Jupiter.
  - Mars and Mercury.
  - Venus and Mercury.

45. The diagram below represents a set-up that was used to demonstrate certain types of soil erosion.



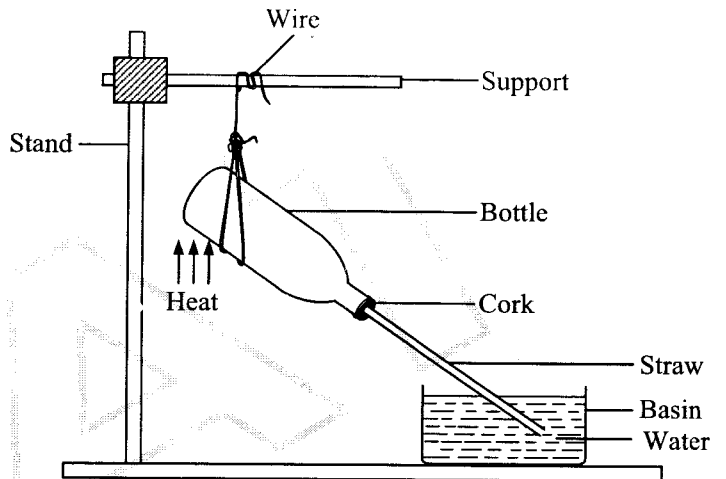
The types of soil erosion demonstrated were likely to be

- A. rill and sheet.  
 B. splash and sheet.  
 C. rill and gully.  
 D. splash and gully.
46. The following are some methods of preserving food:
- (i) canning.  
 (ii) using low temperatures.  
 (iii) using honey.  
 (iv) freezing.

Which one of the following pairs of food can be preserved by **all** the methods listed?

- A. Kale and meat.  
 B. Beans and kale.  
 C. Pineapples and beans.  
 D. Meat and pineapples.
47. The following materials will form shadows when light is shone on them **except**
- A. piece of cloth.  
 B. vehicle windscreen.  
 C. sheet of white paper  
 D. plane mirror.

48. The diagram below shows a set-up used to demonstrate a certain aspect of matter.



Which one of the following would **not** be observed if the bottle was heated gently?

- A. Water level in the basin decreasing when bottle is heated.  
 B. Water rising up the straw when heating is stopped.  
 C. Bubbles in the basin when bottle is heated.  
 D. Water level in the basin decreasing when heating is stopped.
49. The **main** reason why sawdust is spread on polished floor surface of a room is to
- A. absorb dirt.  
 B. increase grip with feet.  
 C. prevent damage to the floor.  
 D. make the room feel warm.
50. To demonstrate a certain aspect of light in bright sunshine, the following materials are used:
- (i) container.  
 (ii) straw.  
 (iii) water.  
 (iv) soap powder.

The aspect **more** likely to be demonstrated is

- A. refraction of light.  
 B. how light travels.  
 C. passage of light through materials.  
 D. making a rainbow.