

**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.** Which one of the following describes an HIV positive person?

- A. The one who has yet to confirm whether he has or has no HIV virus.
- B. The one whose body doesn't have HIV virus.
- C. The one whose body has HIV virus.
- D. The one who has not gone for testing.

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.

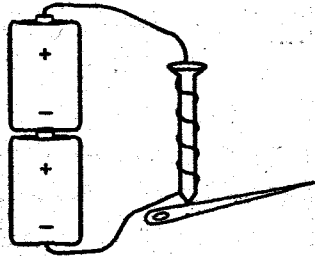
11. Your **dark line** **MUST** be within the box.
12. For each question **ONLY ONE** box is to be marked in each set of four boxes.

**This question paper consists of 8 printed pages.**

1. High constant body temperature in a mammal is maintained by \_\_\_\_\_.  
 A. Liver  
 B. Pancrease  
 C. Heart  
 D. Kidney
  
2. The following are characteristics of insects.  
 (i) Have wings  
 (ii) Have six legs  
 (iii) Have jointed legs  
 (iv) Their bodies are divided into three parts.  
 Which of the following combinations of the above characteristics is **TRUE** of all insects and differentiates them from the rest of the animals?  
 A. (i), (ii), (iv)  
 B. (ii), (iii), (iv)  
 C. (i), (ii), (iii)  
 D. (i), (iii), (iv)
  
3. Sweating reduces body temperature because \_\_\_\_\_.  
 A. the sweat spreads cold water on the surface of the skin.  
 B. film of water on the skin acts as a good conductor of heat.  
 C. the sweat blocks the pores that loses heat.  
 D. body loses heat due to evaporation of water in the sweat.
  
4. Tears, sweat, saliva, gastric juice and pancreatic juice are collectively called \_\_\_\_\_.  
 A. digestive juices  
 B. excretory products  
 C. secretions  
 D. waste matter
  
5. Which of the following is the **CORRECT** order of the main blood vessels through which a red cell passes from entering the heart till it leaves the heart to the rest parts of the body?  
 A. Vena cava, pulmonary artery, pulmonary vein, aorta.  
 B. Aorta, vena cava, pulmonary vein, pulmonary artery.  
 C. Pulmonary vein, vena cava, pulmonary artery, aorta.  
 D. Vena cava, pulmonary vein, pulmonary artery, aorta.
  
6. Which one of the following is the tube that leads from the ovary to the uterus?  
 A. Ureter  
 B. Oviduct  
 C. Vas-deferens  
 D. Urethra
  
7. Which of the following is **NOT** an excretory product?  
 A. Urea  
 B. Water  
 C. Carbon dioxide  
 D. Faeces
  
8. We feel hotter while jumping up and down because of the increased \_\_\_\_\_.  
 A. rate of breathing  
 B. production of sweat  
 C. production of energy  
 D. rate of heart beat
  
9. Constant body temperature of a man is maintained at 37°C by \_\_\_\_\_.  
 A. drinking hot coffee.  
 B. warming by fire when it is cold.  
 C. having a skin sensitive to temperature changes.  
 D. wearing woolen clothes which prevent heat loss.

37. Which one of the following sets is made up of animal pests only?
- Ticks, lice, stalkborer, flukes.
  - Weevils, stalkborers, fleas, lice.
  - Flukes, lice, fleas, weevils.
  - Fleas, flukes, lice, ticks

38. Karuga made a simple circuit arrangement as shown in the diagram below and realised that the nail could pick a needle.



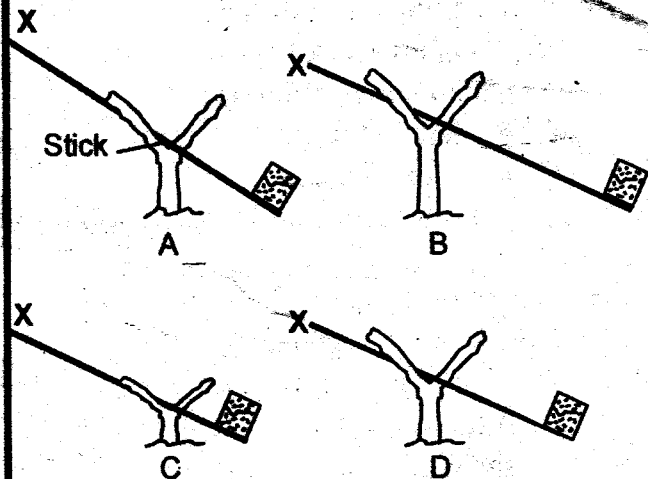
Which one of the following energy transformations that occurred?

- Electromagnetic → electrical → chemical → mechanical.
  - Chemical → electromagnetic → electrical → mechanical.
  - Chemical → electrical → electromagnetic → mechanical.
  - Mechanical → chemical → electrical → electromagnetic.
39. Which one of the following functions the same way as a bicycle dynamo when used to generate electricity?
- Car battery.
  - Torch battery.
  - Diesel generator.
  - Solar panels.
40. Which one of the following is FALSE about rotational grazing?
- Animals use pastures properly.
  - Soil erosion is increased.
  - Parasites are easily controlled.
  - Pastures have time to grow again.

41. The shape of a bird's beak will enable us to know \_\_\_\_\_.
- the birds name.
  - where the bird lives.
  - the type of food the bird eats.
  - what type of nest the bird builds.

42. Which one of the following is a way of softening hard water?
- Filtering
  - Decanting
  - Freezing
  - Boiling

43. Kalonzo supported objects at point X using strong sticks. Which one of the following will support the HEAVIEST object?

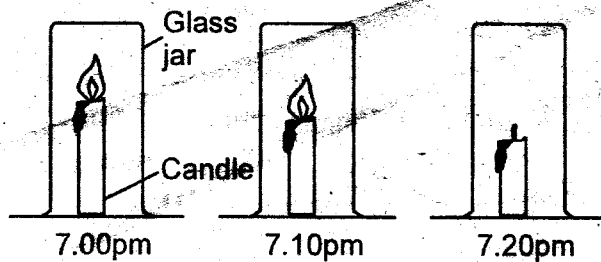


44. The following are symptoms of food poisoning. Which one is NOT?
- Diarrhoea.
  - Severe stomachache.
  - Violent vomiting.
  - Feeling very hungry.
45. Stalkborer is a crop pest. Which part of the crop does it attack?
- Stem
  - Roots
  - Leaves
  - Flowers

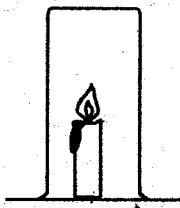
46. Which one of the following is the LEAST threat to conservation of forests in Kenya today?

- A. Farming.
- B. Wild game.
- C. Burning charcoal.
- D. Fire.

The diagrams below shows the height of a candle in a glass jar at various times. (Use it to answer questions 47 and 48).



47. At what time was the candle likely to be seen as shown in the diagram below.



- A. 12.35 p.m.
- B. 7.05 p.m.
- C. 7.15 p.m.
- D. 7.25 p.m.

48. Which one of the following would NOT have kept the candle burning after 7.20 p.m.?

- A. Using a taller candle.
- B. Using a wider glass jar.
- C. Using a taller glass jar.
- D. Lighting the candle at 7.10 p.m.

49. Which one of the following is NOT a characteristic of an insect pollinated flower?

- A. Have sticky pollen grains.
- B. Have brightly coloured petals.
- C. Produce large quantities of pollen grains.
- D. Have nectar.

50. The following are sources of energy.

Which one of them is NOT a renewable source of energy?

- A. Charcoal.
- B. Coal.
- C. Biogas.
- D. Solar.

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