



TARGETER KCPE THIRD MERIT STANDARD EIGHT - YEAR 2022

SCIENCE

Time: 1 hour 40 mins

INSTRUCTIONS TO CANDIDATES (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 the 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
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, 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:

16. Blood from the heart to the lungs flow through
- A. venacava
 - B. pulmonary artery
 - C. aorta
 - D. pulmonary vein.

The correct answer is **B**.

On the Answer sheet:

15. [A] [B] [C] [D]

15. [A] [B] [C] [D]

16. [A] [B] [C] [D]

17. [A] [B] [C] [D]

In the set of boxes number 16, the box with letter **B** 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. Which one of the following is **not** a sign of an unhealthy crop?
 - A. Curled leaves.
 - B. Stem discolouration.
 - C. Stunted growth.
 - D. Dark green leaves.

2. The **main** reason why some manure should be added to the compost heap is to
 - A. keep off bacteria
 - B. add nutrients to the heap
 - C. keep the compost heap cool
 - D. feed the decomposers.

3. Which one of the following ways cannot be used to control tapeworms and liverfluke?
 - A. Dosing.
 - B. Dipping.
 - C. Rotational grazing.
 - D. Drenching.

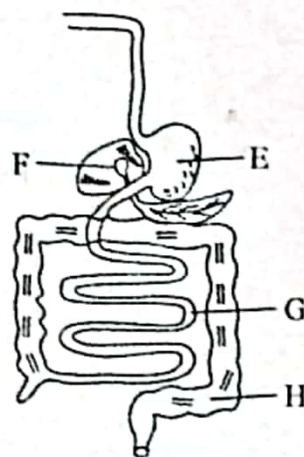
4. The following are functions of amniotic fluid **except**
 - A. protects the foetus from shock
 - B. facilitates transfer of wastes from foetus to the mother
 - C. keeps the foetus moist
 - D. enables free movement of foetus.

5. The force of gravity acting on an object can be measured using
 - A. spring balance
 - B. a ruler
 - C. beam balance
 - D. tape measure.

6. The food chain below represents a feeding relationship in a grassland.
Green plants → mice → snake → wildcat
 Which one of the following would be the last to be affected if there is prolonged drought?
 - A. Mice.
 - B. Wildcat.
 - C. Snake.
 - D. Green plants.

7. The following internal parasites attack the small intestines. Which one does **not**?
 - A. Liverflukes.
 - B. Lungworms.
 - C. Hookworms.
 - D. Tapeworms.

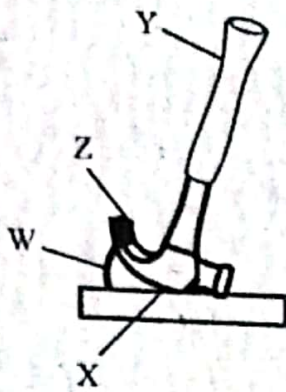
8. The diagram below shows the digestive system



Which one of the following parts is incorrectly matched with its function?

Part	Function
A. E	- Digestion of proteins.
B. F	- Stores bile.
C. G	- Completes digestion
D. H	- Digestion of fats and oil.

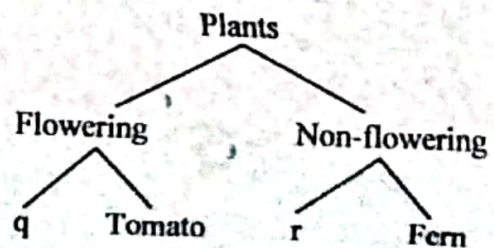
9. The diagram below shows a lever in use



Which one of the following parts labelled W, X, Y, Z shows the position of fulcrum while the lever is in use?

- A. Z
B. W
C. X
D. Y
10. Which pair consists of sources of heat only?
A. Firefly and sun.
B. Gas and electricity.
C. Candle and torch.
D. Star and dry cells.
11. The soil that has high capillarity is also likely to
A. have good drainage
B. have coarse texture
C. have poor water retention ability
D. have cracks when dry.
12. Which one of the following is the most effective method of controlling weeds in a wheat plantation?
A. Digging them out.
B. Using chemicals.
C. Uprooting.
D. Slashing.

13. Which one of the following is **not** a sign of pregnancy?
A. Tender breasts.
B. Menstrual flow stops.
C. Onset of menstrual flow.
D. Nausea.
14. Which one of the following consists of a pair of sources of current electricity?
A. Torch and dry cell.
B. Car battery and solar panel.
C. Wind and petrol driven generator.
D. Dam and diesel generator.
15. Which one of the following materials is transparent?
A. Air.
B. Milk.
C. Mirror.
D. Skylight.
16. The chart below represents classification of plants



Which one of the following correctly matches the identity of plants q and r?

- | | |
|---------------|--------|
| q | r |
| A. Algae | Mango |
| B. Maize | Moss |
| C. Liverworts | Cotton |
| D. Coffee | Rice |

17. Which one of the following is a preventive measure against being struck by lightning?
- Wearing shoes with thick rubber soles.
 - Leaning against the walls.
 - Walking on open field when it is raining.
 - Sheltering under a tree.

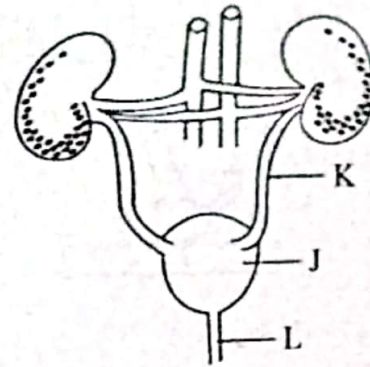
18. Sound does not travel through
- air
 - vacuum
 - solids
 - water.

19. Three of the following are ways of conserving water. Which one is **not**?
- Mulching.
 - Using drip irrigation.
 - Using sprinkler irrigation.
 - Reusing water.

20. The following are methods of controlling soil erosion. Which one is **not**?
- Planting cover crops.
 - Building porous dams.
 - Ploughing along the slope.
 - Contour farming.

21. Plants that have flexible stems and shallow roots are also likely to
- have thick cuticles
 - have increased number of stomata
 - have needle-like leaves
 - have reduced number of stomata.

22. The diagram below shows an excretory system



The parts labelled J, K and L respectively are

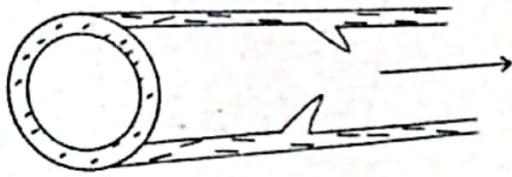
J	K	L
A. Urethra	Bladder	Ureter
B. Ureter	Bladder	Urethra
C. Bladder	Ureter	Urethra
D. Ureter	Urethra	Bladder.

23. The damage caused by stalkborers is **mainly**
- making holes in grains
 - boring and damaging stems
 - making holes in the leaves
 - destroying the roots.

24. In which stage of HIV/AIDS infection does the patient test negative and shows no signs?
- Asymptomatic stage.
 - Symptomatic stage.
 - Window stage.
 - Full blown stage.

25. The force that opposes motion cannot be reduced by
- streamlining
 - smoothing surfaces
 - using lubricants
 - treading.

26. The diagram below shows a blood vessel



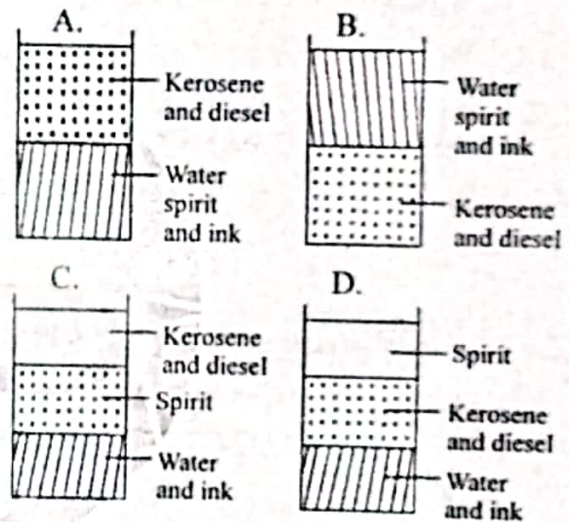
Which statement is not true about the blood vessel?

- A. It carries blood to the heart.
 B. It has thin inelastic walls.
 C. It carries blood at a high pressure.
 D. It has a wide opening.
27. The following are advantages of stall feeding **except**
- A. collection of manure is easy
 B. it is labour intensive
 C. requires a small space
 D. it is easy to control parasites.
28. Which one of the following is **not** a high nitrogenous fertiliser?
- A. Blood meal.
 B. Urea.
 C. Sulphate of Ammonia.
 D. Bone meal.
29. Which of the following is **not** a sign of animal infested with parasites?
- A. Loss of appetite.
 B. Irritation.
 C. Rise in body temperature.
 D. Smooth coat.

30. Which one of the following groups of food is recommended for a child who has brown hair and sores at the corner of the mouth?

- A. Milk, beef, eggs.
 B. Liver, spinach, pineapple.
 C. Ugali, eggs, chapati.
 D. Orange, mango, rice.

31. Standard 7 pupils mixed the following five liquids: water, ink, kerosene, spirit and diesel. Which diagram shows how the liquids appeared in the container?



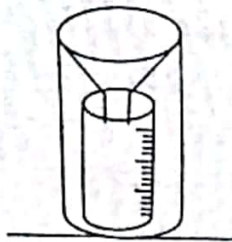
32. Which one of the following is a social effect of abusing drugs?

- A. Withdrawal symptoms.
 B. Addiction.
 C. Truancy.
 D. Convulsions.

33. Which of the following major components do plants and animals depend on directly?

- A. Water and air.
 B. Air and soil.
 C. Sound and light.
 D. Water and soil.

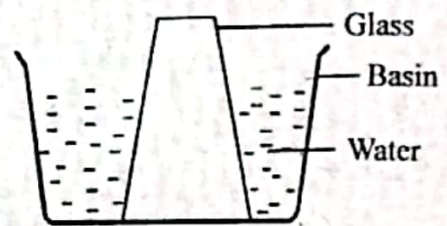
34. The diagram below represents a certain weather instrument



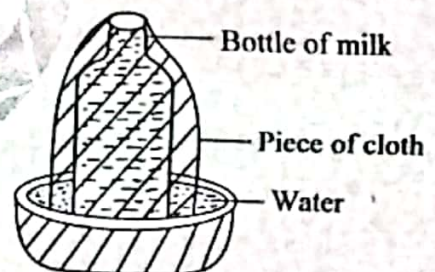
Which one of the following statements is true about the instrument? It

- A. works under the principle of matter occupies space
 B. is placed 15cm above the ground to make it visible
 C. is dug 30cm below the soil to prevent splashing rain water from getting in
 D. is kept in an open place to prevent evaporation of water.
35. Wearing protective clothing when handling stagnant water and proper sanitation can help in controlling the spread of
- A. bilharzia only
 B. cholera and malaria
 C. typhoid and bilharzia
 D. malaria and bilharzia.
36. Which of the following groups of crops consists of cereals only?
- A. Maize, millet, sunflower.
 B. Peas, greengrams, groundnuts.
 C. Rice, wheat, sorghum.
 D. Beans, maize, peas.
37. Which one of the following groups consists of legal drugs?
- A. Miraa, tobacco, alcohol.
 B. Heroin, miraa, tobacco.
 C. Alcohol, khat, mandrax.
 D. Khat, heroin, alcohol.

38. The set up below shows that

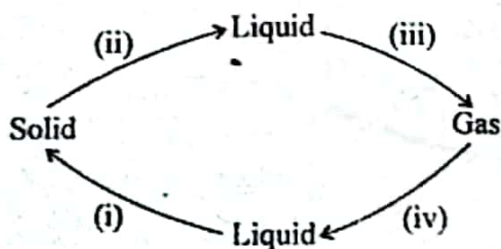


- A. air exerts pressure
 B. matter has mass
 C. liquids exert pressure
 D. matter occupies space.
39. Which of the following animals consists only of invertebrates?
- A. Snail, grasshopper, newt.
 B. Lizard, snake, rat.
 C. Slug, turtle, spider.
 D. Crab, millipede, mite.
40. The traditional method of food preservation shown below preserves food by



- A. coating the food
 B. making the food airtight
 C. reducing water
 D. lowering its temperature.
41. Animals like earthworms and millipedes live in the soil. These animals obtain oxygen from
- A. soil.
 B. water.
 C. plants.
 D. atmosphere.

42. Which one of the following sexually transmitted infections can lead to madness if not treated?
- Gonorrhoea.
 - Chancroid.
 - Syphilis.
 - HIV and AIDS.
43. Which one the following livestock parasites cannot be controlled by rotational grazing?
- Fleas.
 - Tsetse flies.
 - Roundworms.
 - Ticks.
44. Standard 6 pupils collected the following materials during a Science practical lesson.
- Water in a basin
 - A clean mirror
 - A white board
- Which aspect of light were they investigating?
- Dispersion of light.
 - Reflection of light.
 - How light travels.
 - Bending of light.
45. The illustration below shows the processes that bring about changes in states of matter.



Which letters represent a pair of processes that requires an increase and a decrease in temperature respectively?

- i and ii
- ii and iii
- i and iv
- iii and iv

46. Clouds which most often give rise to rainfall are
- thick, white and appear like bundles of cotton wool
 - white in colour and appear high in the sky
 - dark-grey in colour and have a mountainous shape
 - high, feathery and made up of rounded masses.
47. Which one of the following is **not** important to consider when buying medicine from a chemist?
- The date of manufacture.
 - How to store medicine.
 - The expiry date.
 - Prescription.
48. Which of the following groups consists of materials that can be attracted by a magnet?
- Aluminium foil, iron, pin.
 - Copper turnings, steelwool, tin.
 - Needle, iron filings, staple pins.
 - Pin, copper coin, steelwool.
49. Which one of the following types of soil erosion is most likely to cause a landslide?
- Rill erosion.
 - Sheet erosion.
 - Gulley erosion.
 - Splash erosion.
50. A class seven pupil accidentally mixed sand, iron filings and salt. Which is the correct order to follow for the pupil to obtain salt **only**?
- Use of a magnet, dissolving, filtering and evaporation.
 - Dissolving, filtering and evaporation.
 - Use of magnet, filtering, dissolving and evaporation.
 - Filtering, dissolving, use of magnet and evaporation.