



TARGETER KCPE SECOND MERIT STANDARD EIGHT - YEAR 2021

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. Which one is not a way in which air is polluted?
- A. Smoking cigarette.
 - B. Untreated sewage.
 - C. Aerosol sprays.
 - D. Industrial waste gases.

The correct answer is B.

On the Answer sheet:

14. [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.

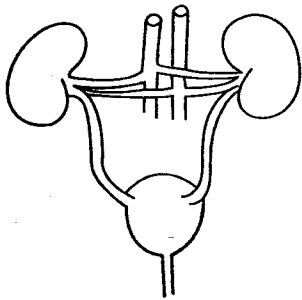


This question paper consists of 7 printed pages.

1. When preparing compost manure, top soil is added into the heap in order to
- introduce decomposers.
 - add nutrients in the manure.
 - allow air circulation.
 - nourish bacteria.

2. The type of teeth that has one root, is sharp and chisel shaped is used for
- tearing.
 - cutting.
 - chewing.
 - grinding.

3. The diagram below shows an excretory system



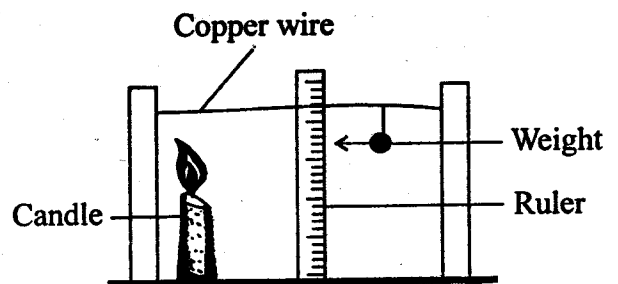
Which one of the following wastes is **not** excreted by the above?

- Urea.
 - Salts.
 - Water.
 - Carbon dioxide.
4. A certain sexually transmitted disease has the following signs and symptoms:
- Painless pimples at the lips*
 - Skin rash appears and disappears*
 - Swollen lymph gland which bursts to form bubo*
- The disease is likely to be
- chancroid.
 - syphilis.
 - gonorrhoea.
 - HIV/AIDS.

5. Which one of the following substances has no definite shape, has definite volume and mass?
- Chalk dust.
 - Oxygen.
 - Watervapour.
 - Tooth paste.
6. Which of the crop pests below is **correctly** matched with the damage it causes on plants?
- Weevils - cutting stems.
 - Aphids - sucking juice from plants.
 - Termite - making holes in stems.
 - Stalkborer - eating grains.

7. Which among the following diseases is **not** communicable but immunisable?
- Malaria.
 - Tuberculosis.
 - Tetanus.
 - Measles.

8. Std. 5 pupils carried out the experiment below.



After the experiment, the pupils concluded that

- copper is a good conductor of electricity
- when heated the weight went down
- copper is a good conductor of heat
- matter expands when heated.

9. Which one of the following is an effect of HIV to an individuals?
- A. Poor economy.
 - B. School dropouts.
 - C. Low self esteem.
 - D. Lack of parental care.

10. Which one of the following is **not** a health effect of drug abuse?
- A. Lack of concentration.
 - B. Truancy.
 - C. Addition.
 - D. Impaired judgement.

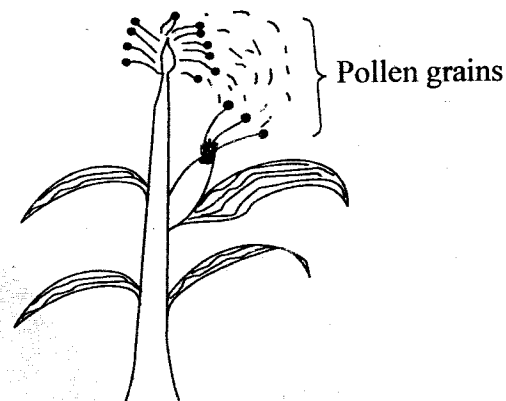
11. A plant that grows in wet areas has
- A. broad leaves.
 - B. sunken stomatas.
 - C. succulent stems.
 - D. thick cuticles.

12. The following are proper ways of using medicines **except**
- A. do not share medicines.
 - B. never take vitamins and mineral supplements unless instructed by the doctor.
 - C. keep all medicines in lockable cupboards.
 - D. excess medicines after completing the dose should be destroyed.

13. Which one of the following substances is magnetic?
- A. Hacksaw blade.
 - B. Copper coin.
 - C. Aluminium sufuria.
 - D. Copper wire.

14. A certain waterborne disease can be prevented by proper use of urinals and wearing of gumboots on water. The disease is
- A. typhoid.
 - B. cholera.
 - C. bilharzia.
 - D. malaria

15. The diagram below shows a type of pollination in plants



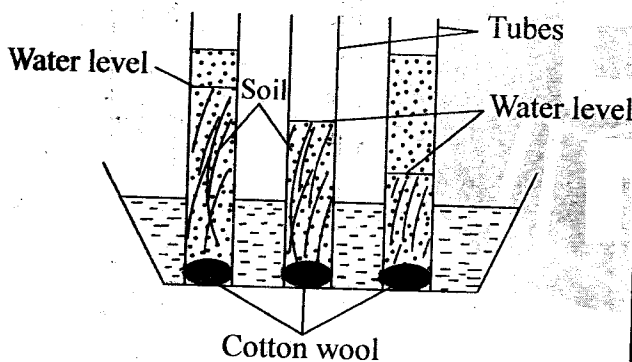
- The above type of pollination is called
- A. self pollination.
 - B. cross pollination.
 - C. insect pollination.
 - D. anther to stigma pollination.

16. Njoroge of Nyamamithi primary school was taken to hospital with the following signs.
- i) Swollen face and legs.
 - ii) Sores at the corners of the mouth
 - iii) Swollen abdomen
 - iv) Thin brownish hair
- Which deficiency disease was he suffering from?
- A. Kwashiorkor.
 - B. Marasmus.
 - C. Rickets.
 - D. Anaemia.

17. The following are stages that take place during the process of giving birth. Which process takes place last?
- Release of afterbirth.
 - Dilation of the cervix.
 - Breaking of the amnion sac.
 - Expulsion of the foetus.

18. Which one of the following is **not** a reason for lighting a house?
- For safety.
 - To discourage pests.
 - To feel warm.
 - To read comfortably.

19. Std. 5 pupils carried out the experiment below



Which one of the following factors need **not** be the same in the above experiment?

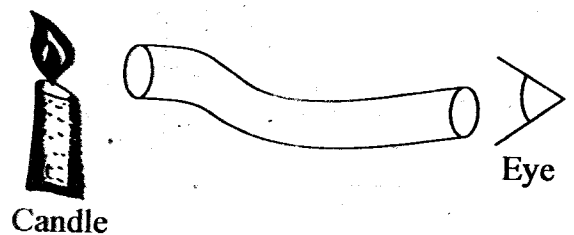
- Amount of soil.
 - Size of soil particles.
 - Size of cotton wool.
 - Size of tubes.
20. At the age of 14 weeks an infant is **not** immunised against
- polio.
 - diphtheria.
 - yellow fever.
 - tetanus.

21. Which one of the following is the **best** method of controlling the spread of ticks and liverflukes in livestock?
- Dipping.
 - Rotational grazing.
 - Deworming.
 - Spraying.

22. The best method of controlling the spread of HIV and AIDS among the adolescents is by
- use of condoms.
 - abstaining.
 - being faithful.
 - visiting a VCT centre.

23. Which statement about tools is **correct**?
- Tools should be cleaned before use.
 - All tools should be well sharpened.
 - Broken handles should be replaced after use.
 - Each tool should be used for its purpose.

24. The diagram below shows a set-up that is used to investigate a certain aspect of light.



Which aspect of light was being investigated?

- Uses of light.
- How light travels.
- Passage of light.
- Formation of shadows.

25. The correct foetal development process in human is
- zygote → foetus → embryo → baby.
 - zygote → embryo → foetus → baby.
 - baby → foetus → embryo → zygote.
 - zygote → baby → embryo → foetus.

26. Which statement below is **not** true about reproduction in human beings?
- Fertilization takes place in the oviduct.
 - The placenta nourishes the foetus.
 - The blood of the mother and the foetus mixes.
 - Amniotic fluid cushions the foetus.

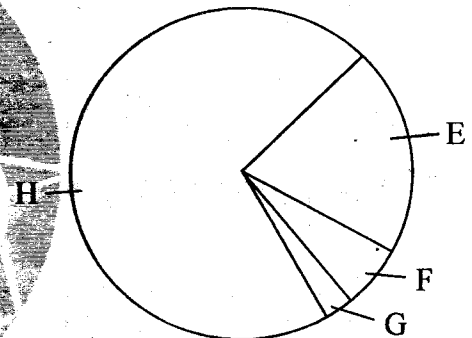
27. All the following are used when modelling the solar system **except**
- thorns
 - foil papers
 - paper mache
 - manilla papers.

28. Which one of the following materials is translucent?
- Frosted glass.
 - Milk.
 - Kerosene.
 - Water vapour.

29. Which among the following animals is a useful animal?
- Rat.
 - Flea.
 - Termite.
 - Fish.

30. Which one of the following practices does **not** control water pollution?
- Clearing oil spills in lakes and oceans.
 - Dumping industrial waste into rivers.
 - Controlling the use of fertilizers.
 - Practising proper hygiene.

31. The diagram below shows the composition of air in the atmosphere.

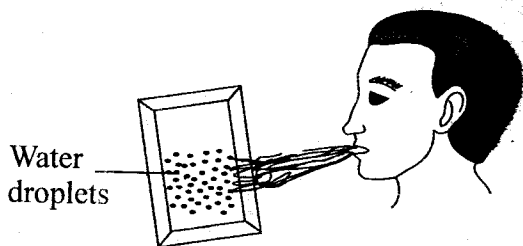


The gas labelled E is not used in

- breathing.
- burning.
- making plants food.
- germination.

32. The following steps are followed when making a rainbow but not in correct order;
- Tilt the mirror under water to reflect light
 - Take a basin and half fill it with water
 - Place the mirror at the bottom of the basin in a tilted position
 - Place the basin on a stool near a window
- Which is the **correct** order?
- iii, ii, iv, i
 - iv, ii, i, iii
 - i, iii, ii, iv
 - ii, iii, iv, i

33. Fibre in the diet is useful in
 A. getting rid of undigested materials.
 B. absorption of food nutrients.
 C. cooling the body.
 D. constipation.
34. Which one of the following characteristics is common between a whale and a tilapia?
 A. Have a backbone.
 B. Are cold blooded.
 C. Breathe by gills.
 D. Lay eggs.
35. A child with shortness of breath, dizziness and headache should be fed on foods rich in
 A. proteins.
 B. iron.
 C. carbohydrates.
 D. vitamin D.
36. Kibet was told by his teacher to breathe into a glass mirror as shown below.



He was likely to be investigating

- A. melting.
 B. evaporation.
 C. condensation.
 D. formation of images.

37. Which one of the following excretory products is removed by all the excretory organs?
 A. Carbon dioxide.
 B. Salts.
 C. Urea.
 D. Water.
38. Which one of the following is formed at the oviduct immediately after fertilisation?
 A. Foetus.
 B. Zygote.
 C. Infant.
 D. Embryo.
39. Which one of the following is a non-green plant?
 A. Bracket tree.
 B. Fern.
 C. Algae.
 D. Pine.
40. Wheat flour and husks can best be separated by
 A. filtering.
 B. sieving.
 C. winnowing.
 D. decantation.
41. Which one of the following drugs is **not** illegal?
 A. Bhang.
 B. Khat.
 C. Cocaine.
 D. Cobbler's glue.