

# PRE- K.C.P.E TRIAL

## STANDARD EIGHT - YEAR 2022



### SCIENCE

### NYERI COUNTY

*Time: 1hr 40Mins*

#### 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 paper.

#### 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

15. Sound energy moves at the lowest speed through?

- A. Vacuum
- B. Solids
- C. Liquids
- D. Gases

The correct answer is D

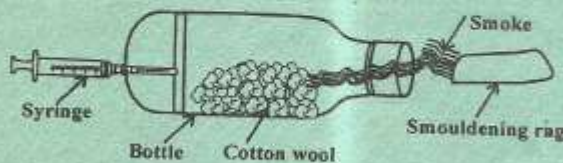
On the answer sheet:

15. [A] [B] [C] **[D]** 16. [A] [B] [C] [D] 19. [A] [B] [C] [D] 26. [A] [B] [C] [D]

In the set of boxes number 15, the box with letter D printed in it is marked.

This question paper consists of 8 printed pages.

- Pupils from Muga Academy noted a weed with green - purple leaves during a nature walk. The plant was likely to be
  - pigweed
  - sodom apple
  - datura
  - blackjack
- Which of the following animals is correctly matched with the way it moves?
  - Ostrich - flying
  - Wasp - leaping
  - Goat - crawling
  - Toad - hopping
- A child that lacks calcium phosphorous and vitamin D is likely to show which sign?
  - Feel dizzy and at times faint
  - Has sores at the corners of the mouth
  - Bending of bones in the legs
  - Bones are visible from the skin
- Which one of the following statements is incorrect?
  - Contaminated water can lead to spread of HIV an/AIDS
  - Dams conserve water by trapping run-off water
  - Conserving water ensures it is saved for future use
  - Uncontrolled use of farm chemicals can cause water pollution
- Which of the following is the second stage during the germination of the seeds?
  - Swelling of the seed
  - Young shoot appears
  - The first leaves appear
  - A young root appears
- The experiment below was set up by standard eight pupils in Kanja Primary School



What were they investigating ?

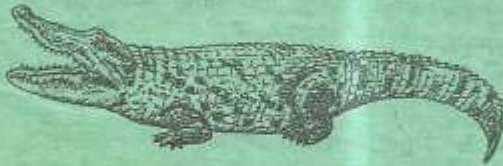
- Convection in gases
- Effects of smoke
- Smouldering function
- How syringes function

- Turning the material in a compost pit is necessary . Why ?
  - To fix nitrogen in the air
  - To introduce decomposers
  - To allow circulation of air
  - To bring macronutrients to the top of the heap
- Listed below are signs of unhealthy crops. Which one is not ?
  - Flowers falling off prematurely
  - Apexes turning yellow
  - Thick long stem
  - Patches on the stem and fruits
- Which one of the following statements is **not** correct?
  - It is important to complete the dosage given for curative medicines
  - When one gets well, its advisable to destroy any remaining curative medicines
  - Pain - relieving medicine should be taken only when one is in pain
  - Fruits and vegetables are better sources of vitamins and mineral salts than vitamin supplement
- Which of the following food **cannot** be deep frozen?
  - Vegetables
  - Fish
  - Milk
  - Mutton
- Which one of the following soil conservation measures conserves soil in the same way as mulching?
  - Contour farming
  - Use of gabions
  - Planting cover crops
  - Terracing
- The left ventricle walls are thicker than the walls of the right ventricle , because \_\_\_\_\_
  - it receives a lot of blood from the body
  - it pumps blood to the head and legs
  - it pumps blood to all parts of the body
  - it pumps blood to the lungs

13. The following plants can be classified as non-green non flowering plants **except** ?

- A. Mosses                      B. Mucor  
C. Yeast                         D. Toadstool

14. Which one of the following is not a characteristic of the animal drawn below ?



- A. Breathes through lungs  
B. Lay eggs on land  
C. Has varying body temperatures  
D. Has external fertilization

15. Which of the following is **not** an example of bending of light ?

- A. Things appear larger in water  
B. A child sees her image on a mirror  
C. Floors of swimming pools appear raised  
D. A coin placed in water appears raised

16. Which is the best time to begin weaning a baby?

- A. 1 - 2 months  
B. 4 - 6 months  
C. 4 - 6 weeks  
D. 12 - 18 months

17. The type of beak draw below belongs to a bird that **mostly** feed on \_\_\_\_\_



- A. nectar                         B. flesh  
C. grains                         D. fish

18. Which one of the following wastes is biodegradable?

- A. Vegetable peelings  
B. Broken bottles  
C. Plastics  
D. Broken pots

19. An inflated rubber tuber can help a swimmer to float on water while swimming because of its \_\_\_\_\_

- A. weight  
B. size  
C. shape  
D. material

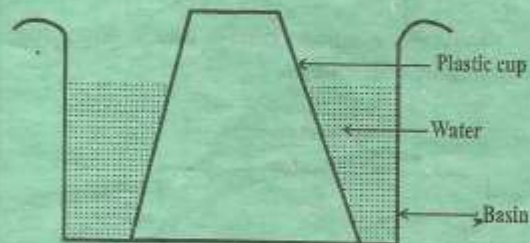
20. Which one of the following pairs consist only of Narcotic drugs in Kenya ?

- A. Alcohol and miraa  
B. Miraa and mandrax  
C. Alcohol and bhang  
D. Bhang and mandrax

21. Plants growing in dry areas have special features that enable them to survive in their environments. Which of the following is a special feature of desert plants ?

- A. Succulency  
B. Flexible stems  
C. Floating flowers  
D. Shallow roots

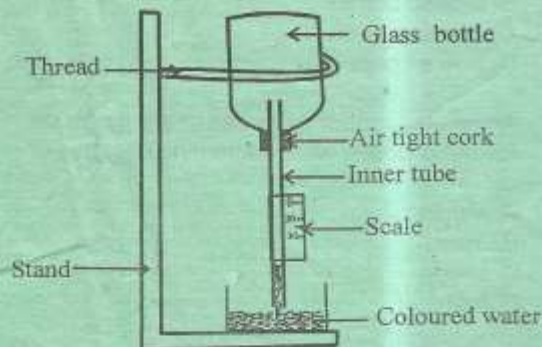
22. A plastic cup was inverted over water as as shown below



It was observed that water did not enter the cup because \_\_\_\_\_

- A. matter expands when heated  
B. air is lighter than water  
C. matter occupies space  
D. matter exerts pressure

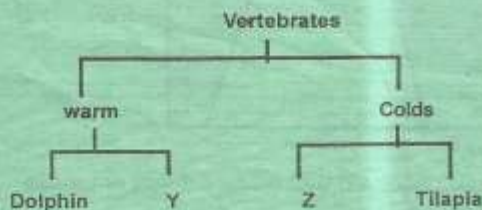
23. Study the diagram and answer the question that follows



In the instrument shown above the bottle should be made of

- A. thick walled plastic B. thin metal  
C. thin walled glass D. thick walled rubber
24. The growth of algae in water is caused by  
A. industrial effluents  
B. uncontrolled farm chemicals  
C. oil spillage  
D. acid rain
25. Which of the following is the correct order for making water safe for drinking?  
A. Chlorinate, filter, boil, drink  
B. Filter, chlorinate, boil, drink  
C. Filter, boil, cool, drink  
D. Cool, filter, boil, chlorinate, drink

26. Study the diagram below and answer the question that follows



Which one of the following animals would replace Y and Z respectively?

- A. Whale, newt  
B. Lizard, frog  
C. Turtle, cow  
D. Snake, salamander

27. The soil that feels rough between the fingers can \_\_\_\_

- A. be used for modelling  
B. be used for building modern houses  
C. be the best in capillarity  
D. be used for farming

28. Which one of the following is a physical change in boys only?

- A. Pimples may appear  
B. Wet dreams  
C. Enlargement of breasts  
D. Increase in height

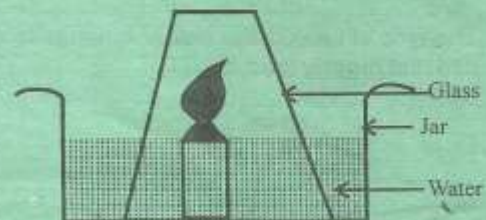
29. Which of the following plants depend on other plants for shade?

- A. Fern  
B. Duck weed  
C. Wandering jew  
D. Stinging nettle

30. The following are sources of iron for a breastfeeding mother. Which one is **not**?

- A. Dark skinned beans  
B. Liver  
C. Milk  
D. Stinging nettle

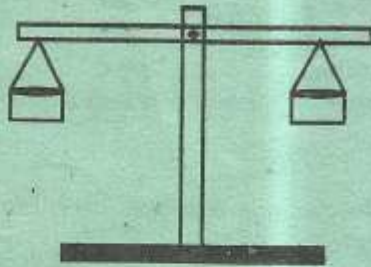
31. The diagram below represents a set up used to investigate uses of air



What happens when the candle goes off?

- A. Water level in the jar goes up  
B. No change in the level of water  
C. The glass breaks  
D. Water level in the glass goes up

32. The figure drawn below represents a simple tool



Which statement is true about the tool ?

- A. It measures amount of matter in a substance  
 B. It is called a spring balance  
 C. It can measure the volume of certain solids  
 D. It uses units called newtons
33. Which of the following is a characteristic of the cloud that indicate fine weather ?  
 A. They cover the whole sky  
 B. They are dark in colour  
 C. They are found high in the sky  
 D. They are mountainous in shape
34. Pupils gave the following statements about water  
 (i) *Has mineral salts*  
 (ii) *Good for cleaning*  
 (iii) *Lathers easily*  
 (iv) *Has a pleasant taste*  
 Which two statements describe soft water?  
 A. (i) and (ii)  
 B. (ii) and (iii)  
 C. (iii) and (iv)  
 D. (i) and (iv)
35. Which of the following levers has the position of load, fulcrum and effort in the same arrangement as the one shown below ?



- A. Wheelbarrow      B. Crowbar  
 C. Spade              D. A pair of scissors

36. The following are signs and symptoms of a certain water - borne disease  
 - **Severe abdominal pain**  
 - **Dehydration**  
 - **Violent diarrhoea**  
 - **Vomiting**

The disease is likely to be;

- A. typhoid  
 B. cholera  
 C. bilharzia  
 D. dysentery
37. Which of the following parts of circulatory system has valves?  
 A. Aorta and venacava  
 B. Left ventricle and venacava  
 C. Pulmonary vein and aorta  
 D. Right ventricle an pulmonary artery
38. The following are teeth problems **except**?  
 A. Tooth decay  
 B. Gingivitis  
 C. Bleeding gums  
 D. Brown teeth
39. Which of the following methods of grazing does **not** require structures and is mostly recommended in areas with scarcity of land?  
 A. Tethering  
 B. Paddockging  
 C. Strip grazing  
 D. Stall feeding
40. The following are the effects of air pollution to animals **except** ?  
 A. Respiratory diseases  
 B. Poor visibility due to smoke  
 C. Acid rain damaging roof tops  
 D. Irritation and discomfort
41. Among the following groups of people, which one is not considered to be a special group  
 A. Nursing mothers  
 B. Mourners  
 C. Vegetarians  
 D. Infants

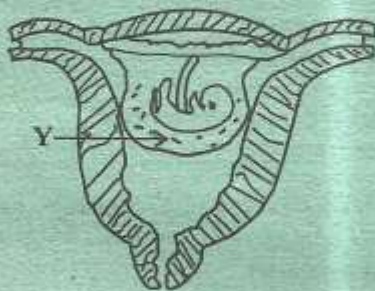
42. The two forms of energy that can travel through a vacuum are
- light and heat
  - magnetic and sound
  - sound and electricity
  - heat and sound

43. Which one of the following statements about friction is false ? Friction;
- is a force that results to time wastage
  - is more on smooth and shiny surfaces
  - can often result to heat
  - is a force that opposes movement

44. Which of the following is not a form of static electricity ?
- When combing hair using a plastic cracking sound is heard
  - Sparks are seen in dark when nylon cloth is removed suddenly
  - When a cat is rubbed gently in dark sparks are observed
  - When a bicycle dynamo rotates the bicycle head lamp glows

45. Which of the following is used to complete a simple circuit?
- |         |            |
|---------|------------|
| A. Bulb | B. Switch  |
| C. Wire | D. Battery |

46. The diagram below represents foetus developing in the uterus



What is the function of the part labelled Y ?

- Facilitates food transfer
- Prevent foetus from injuries
- Carry food and oxygen
- Prevent the foetus from diseases

47. Which one of the following is a health effect of drug abuse?
- Marital conflict
  - Truancy
  - Rape
  - Withdrawal

48. The following is a simple classification of fertilizers



Which fertilizers can be represented by letters Y and Z respectively ?

- D.A.P and compost manure
  - Compost manure and urea
  - N.P.K and D.A.P
  - Farmyard manure and organic mulches
49. Which of the following facts about a rain gauge helps the instrument to prevent the groundwater from splashing into the funnel ?
- It is dug 15 cm into the ground
  - It is made of metal
  - It is placed on a flat open area
  - It is raised 30 cm above the ground
50. Which of the following is not a feature of a single fixed pulley?
- Load is equal to the effort force
  - Effort distance is equal to load distance
  - A wedge is an example of a simple fixed pulley
  - Effort force is towards the gravity