

# K.C.P.E EIGHTH TRIAL STANDARD EIGHT 2022

## SCIENCE

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 an answer, mark it on the **ANSWER SHEET**, not on the 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 and 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:

14. The process by which plants lose water to the atmosphere is called
- A. capillarity
  - B. diffusion
  - C. transpiration
  - D. evaporation

The correct answer is C (transpiration)

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 second set, 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 7 printed pages

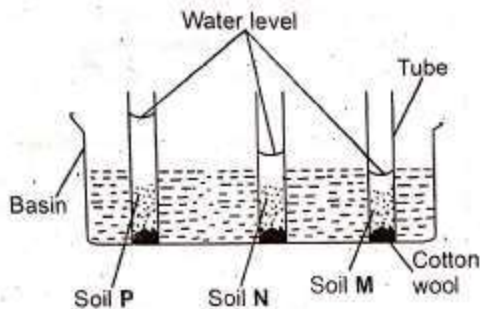
Candidates should check the question paper to ensure that all the pages are printed as indicated and no questions are missing

1. Which is the last activity when separating a mixture of salt, small pebbles and iron filings?
  - A. Evaporation
  - B. Dissolving
  - C. Using a magnet
  - D. Filtering
  
2. The force that opposes motion is useful when
  - A. a dove is flying
  - B. raising the flag
  - C. pushing a big log
  - D. walking down a steep slope.
  
3. Three of the following are methods of rotational grazing. Which one is **not**?
  - A. Strip grazing
  - B. Zero grazing
  - C. Paddockging
  - D. Tethering
  
4. Which pair of blood vessel carry blood under low pressure?
  - A. Venacava and pulmonary vein.
  - B. Pulmonary artery and aorta.
  - C. Aorta and venacava.
  - D. Pulmonary artery and pulmonary vein.
  
5. Which one of the following characteristics is found in **both** shark and tortoise?
  - A. Lay eggs on the land.
  - B. Have dry scales.
  - C. Have backbone.
  - D. Live partly on water.
  
6. Which one of the following statements is **correct** about hard water?
  - A. Best for laundry work.
  - B. Contains alot of minerals.
  - C. Rain is the main source of hard water.
  - D. Filtering soften hard water.
  
7. The **main** reason why people living with HIV and AIDS are encouraged to take alot of fluids is because they
  - A. prevent constipation
  - B. boost the body immunity
  - C. add nutrients to the body
  - D. prevent dchydration.
  
8. A child was diagonised with the following signs and symptoms.
  - (i) *Looking weak.*
  - (ii) *Muscle wastage.*
  - (iii) *Alert eyes.*

The child was advised to feed on

  - A. proteins
  - B. vitamins
  - C. balanced diet
  - D. minerals.
  
9. Which one of the following is a function of amniotic fluid?
  - A. Supply food to the foetus.
  - B. Prevent the foetus from germs.
  - C. Allow the exchange of nutrients between the mother and foetus.
  - D. It lubricates the foetus.
  
10. Which of the following pairs consists of **only** sinkers?
  - A. Stone and charcoal.
  - B. Pins and pieces of glass.
  - C. Pencil and metal plate.
  - D. Wood and candle wax.

11. The set up shown below shows pupils investigating capillarity in different types of soil.



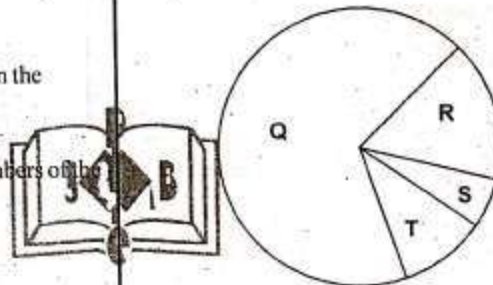
Which was the last step in carrying out the experiment above?

- A. Plugging end of each tube with cotton wool.  
 B. Putting tubes into the basin.  
 C. putting water in the basin.  
 D. Putting equal amount of soil in the tubes.
12. Which one of the following chambers of the heart has the thickest walls?  
 A. Left auricle  
 B. Right ventricle  
 C. Right auricle  
 D. Left ventricle
13. Three of the following animals are attacked by ticks **except**  
 A. cattle  
 B. rabbits  
 C. sheep  
 D. goats.
14. Which is the **best** way of controlling the spread of whooping cough?  
 A. Living in a well ventilated room.  
 B. Eating balanced diet.  
 C. Observing personal hygiene.  
 D. Vaccination against the disease.

15. Which one of the following practices helps to conserve soil by holding back the soil?  
 A. Overstocking.  
 B. Building gabion.  
 C. Cultivating near rivers.  
 D. Fetching water for the animals.

16. Which one of the following plants store food the same place as cassava?  
 A. Onions  
 B. Irish potatoes  
 C. Sugarcane  
 D. Arrow root

17. The diagram below represents the proportion of gases in air.



Which proportion represents the gas used in burning?

- A. R  
 B. Q  
 C. S  
 D. T
18. Which one of the following group contain body building food?  
 A. Soya beans, cashew nut, peas.  
 B. Mutton, apples, beans.  
 C. Milk, kales, fish.  
 D. Honey, fruits, green bananas.

19. Three of the following sources of electricity does **not** use chemicals **except**

- A. wind driven turbine
- B. geothermal generator
- C. solar panel
- D. car battery.

20. Which one of the following makes work easier by changing the direction of applied force?

- A. Wheelbarrow.
- B. Flag post.
- C. Claw hammer.
- D. Stair case.

21. Which one of the following is a fodder crop?

- A. Star grass.
- B. Sunflower seeds.
- C. Calf pellets.
- D. Desmodium.

22. During inhalation, the strong sheet of muscles that separate the chest from abdomen

- A. become dome-shaped
- B. flattens
- C. become wide
- D. become narrow.

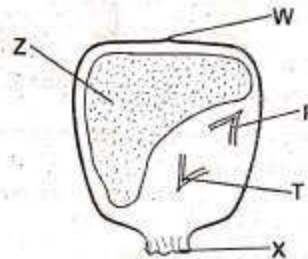
23. Which one of the following is a characteristics of cuphorbia plant?

- A. Air sacs.
- B. Flexible stem.
- C. Large flat leaves.
- D. Thick waxy cuticle.

24. Which one of the following manure provide plants with long term nutrients?

- A. Blood meal.
- B. Farnyard manure.
- C. Double super phosphate.
- D. Diammonium phosphate.

25. The diagram below represent a maize grain.



Which two parts forms the embryo?

- A. W and X
- B. T and Z
- C. P and T
- D. X and Z

26. The activities below are done when separating a mixture of sugar, iron fillings and stones but not in correct order?

- (i) Put the mixture on source of heat.
- (ii) Add water to the mixture.
- (iii) Pass a magnet through the mixture.
- (iv) Filter the mixture through a piece of cloth.

Which of the following shows the **correct** order?

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

27. A coin at the bottom of a swimming pool appears nearer the surface due to

- A. dispersion of light
- B. refraction of light
- C. splitting of light
- D. reflection of light.

28. Which one of the following **correctly** shows the path taken by urine from kidneys?

- A. Urethra - ureter - bladder.
- B. Ureter - bladder - urethra.
- C. bladder - ureter - urethra.
- D. Urethra - bladder - ureter.

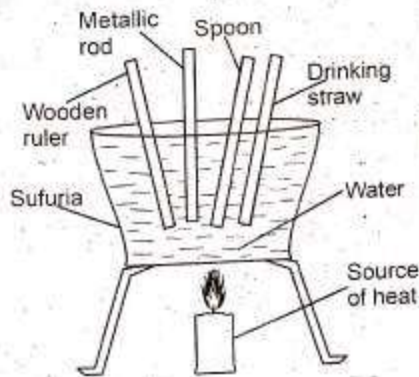
29. During an experiment in class, the teacher smeared a small piece of cloth with oil and lit it to produce smoke. The experiment was used to investigate if

- A. gases have mass
- B. gases have definite volume
- C. gases occupy space
- D. gases exert pressure.

30. Which of the following drugs are **not** prohibited in Kenya but are harmful?

- A. Alcohol and khat.
- B. Tobacco and bhang.
- C. Cocaine and alcohol.
- D. Heroin and mandrax.

31. The set up below was used to investigate a certain aspect of heat.



Which aspect were they investigating?

- A. Convection in water.
- B. Conduction in different solids.
- C. Contraction in solids.
- D. Conduction in water.

32. Which of the following activities will help in controlling air pollution?

- A. Excessive use of farm chemicals.
- B. Recycling untreated sewage.
- C. Use of aerosol spray.
- D. Proper disposal of industrial gases.

33. Which one of the following is **not** a reason why drugs should be stored in a properly labelled containers? To

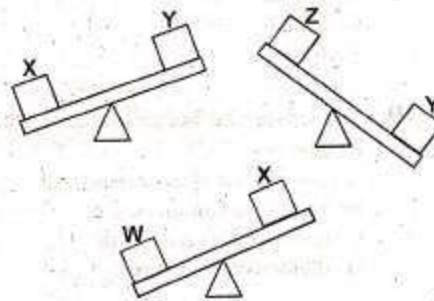
- A. prevent misuse of drugs
- B. avoid contamination
- C. prevent being reached by children
- D. prevent food poisoning.

34. Which one of the following simple tool is maintained through sharpening?

- A. File
- B. Hammer
- C. Jembe
- D. Wheel barrow



35. Peterson had four boxes **W, X, Y** and **Z**. He placed these boxes on a balance in pairs. The results are as shown below.

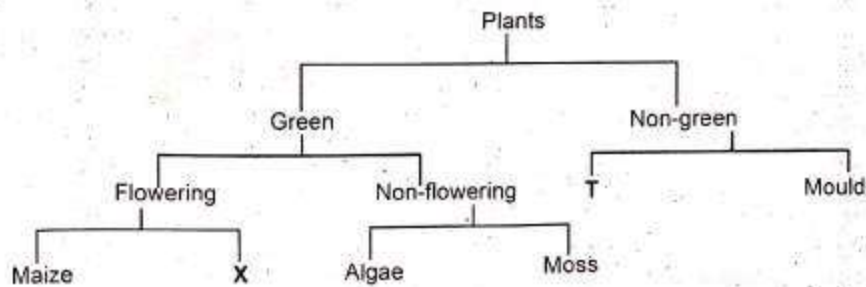


Which boxes were heaviest and lightest respectively?

- A. W and Z
- B. W and X
- C. X and Y
- D. Y and W

36. Which one of the following method of food preserving is **not** traditional?
- A. Drying
  - B. Use of honey
  - C. Use of low temperature
  - D. Canning
37. Which one of the following statement is **not** true about solids and liquids? They
- A. have definite volume
  - B. have definite shape
  - C. have definite mass
  - D. change in state on heating.
38. To control the spread of HIV/AIDS public awareness campaigns can be done through the following **except**
- A. market place
  - B. church service
  - C. security meeting
  - D. V.C.T centre.
39. Some young plants were noted growing under big trees. The young plant depend on big plants for
- A. support
  - B. habitat
  - C. shade
  - D. food.
40. The activity that occurs first during the birth process is
- A. contraction of the uterine walls
  - B. breaking of amniotic sac
  - C. coming out of after birth
  - D. dilation of the cervix.
41. Which one of the following plants has tap root?
- A. Sodom apple
  - B. Wheat
  - C. Sugarcane
  - D. Coconut
42. Which one of the following sentences does **not** describe cumulus clouds? They
- A. have a flat base
  - B. bring fine weather
  - C. cover the whole sky
  - D. are white in colour.
43. Which of the following liquids will form a uniform layer when mixed?
- A. Kerosene and cooking oil.
  - B. Diesel and water.
  - C. Ink and petrol.
  - D. Petrol and spirit.
44. Which one of the following pairs consists of renewable sources of energy?
- A. Coal and sun.
  - B. Firewood and kerosene.
  - C. Charcoal and biogas.
  - D. Petrol and diesel.
45. Friction is a force that opposes motion. In which of the following way is it increased?
- A. Using lubricant.
  - B. Using rollers.
  - C. Stream lining bodies.
  - D. Having treads.

46. The chart below represents a simplified classification of plant.



Which plants are represented by X and T respectively?

- A. Fern and toad stool.
- B. Cypress and cedar.
- C. Onions and yeast.
- D. Sisal and fern.

47. A lactating mother needs food rich in iron for

- A. replacing blood lost during birth
- B. protecting the baby against diseases
- C. increasing milk production
- D. formation of strong bones in the baby

48. When modelling the solar system, the least factor to consider is the

- A. size of the planets
- B. diameter of the orbits
- C. number of the planets
- D. type of glue used.

49. The illustration below shows a food chain

Grass → Antelope → Lion → Vulture

What is likely to happen if all antelopes gradually die?

- A. Lion will increase.
- B. Vulture will decrease.
- C. Grass will decrease
- D. Vultures will increase.

50. Which one of the following statements is not true about sound? Sound

- A. travels in all direction
- B. can be reflected
- C. is an example of a force
- D. can't be transmitted without a media.