



KCPE SECOND TRIAL

STANDARD EIGHT - 2021

Time: 1hr. 40 Mins.

SCIENCE

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. When you have chosen your answer mark it on the **ANSWER SHEET**, not in the question paper.
HOW TO USE THE ANSWER SHEET.
3. Use an ordinary pencil only.
4. Make sure that you have written on the answer sheet:-
YOUR INDEX NUMBER
YOUR NAME
NAME OF YOUR SCHOOL
5. 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.
6. Do not make any marks outside the boxes.
7. Keep your answer sheet as clean as possible and **DO NOT FOLD IT**.
8. 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.
9. 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

17. Which of the following mixture cannot be separated using a magnet?

- A. Iron and steel
- B. Aluminium and iron
- C. Zinc and steel
- D. Silver and steel

The correct answer is A

On the answer sheet:

17. [A] [B] [C] [D] 18. [A] [B] [C] [D] 19. [A] [B] [C] [D] 20. [A] [B] [C]

[D]

In the set of boxes number 17, the box with letter A printed in it is marked.

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



5072002

This question paper consists of 8 printed pages.

© compasspress, 2021

TURN OVER

1. Materials which allow some light to pass through them but one cannot see through them clearly are used to make the following except

- A. skylight
- B. vehicle windscreens
- C. toilet window panes
- D. bathroom window panes

2. Absorption of water and mineral salts in human being takes place in the

- A. stomach
- B. duodenum
- C. small intestine
- D. large intestine

3. Broilers are ready for slaughter after being fed for how many months?

- A. Six
- B. Two
- C. Twelve
- D. Eight

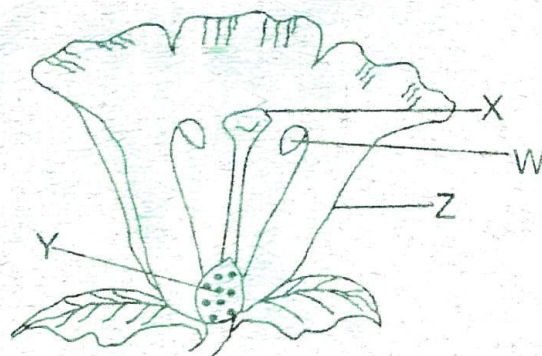
4. Some mammals feed on both flesh and vegetables. Which one of the following is an example of such a mammal?

- A. Dog
- B. Pig
- C. Goat
- D. Cat

5. The following are examples of tuber crops except

- A. sweet potato
- B. carrot
- C. irish potato
- D. onion

6. The diagram below shows parts of a flower.



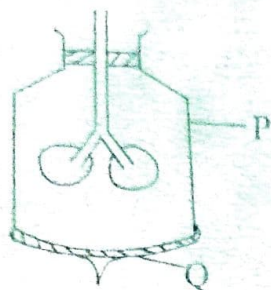
Which one of the labelled parts is not correctly matched with its function?

| Part | Function |
|------|--------------------------|
| A. W | - Receives pollen grains |
| B. X | - Receives pollen grains |
| C. Y | - Develops into a seed |
| D. Z | - Attracts insects |

7. Which one of the following parts of a bean seed is correctly matched with its function?

| Part | Function |
|--------------|--------------------------|
| A. Micropyle | - Attaches seed to a pod |
| B. Plumule | - Develops into roots |
| C. Cotyledon | - Stores food |
| D. Testa | - Allows in water |

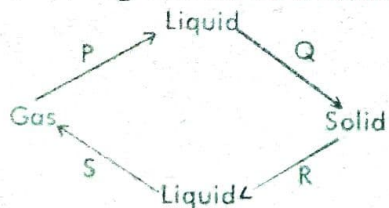
8. The diagram below represents the model of the breathing system.



The part marked Q represents the

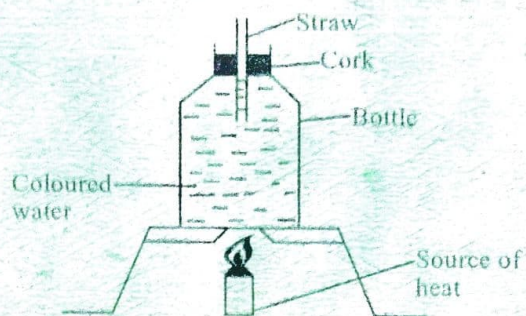
- A. diaphragm
 - B. lungs
 - C. ribs
 - D. bronchus
9. Which one of the following are the percentages of rare gases and carbon dioxide in the air?
- A. 0.03% and 78%
 - B. 0.97% and 0.03%
 - C. 21% and 0.03%
 - D. 78% and 0.97%

10. The diagram below shows processes which cause changes in the state of matter.



Which two processes absorb heat from the surrounding?

11. The set-up below was used to investigate a certain property of matter.



Which one of the following is the correct observation that will be made in the set-up above when the source of heat is removed?

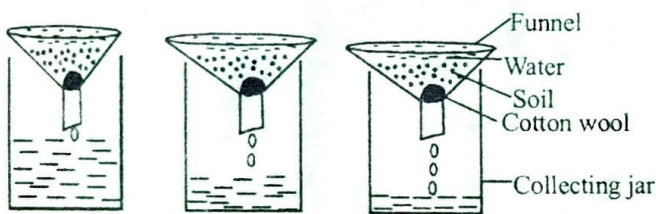
- A. The coloured water will drop in the straw
 - B. The coloured water will turn colourless
 - C. The coloured water will rise up the straw
 - D. The coloured water will boil
12. Which one of the following factors does not affect sinking and floating of a material in water? The
- A. weight of the material
 - B. type of the material
 - C. shape of the material
 - D. volume of the material

13. In which of the following is friction most needed?

- A. R and S
 - B. P and Q
 - C. Q and R
 - D. P and S
- A. Streamlining
 - B. Using rollers
 - C. Polishing the surface
 - D. Skating

14. Which one of the following sentences is not correct?
- Tools should be cleaned after use
 - Tools should be stored in a clean dry place
 - Tools should be handled carefully
 - Tools should be thrown away when they break down

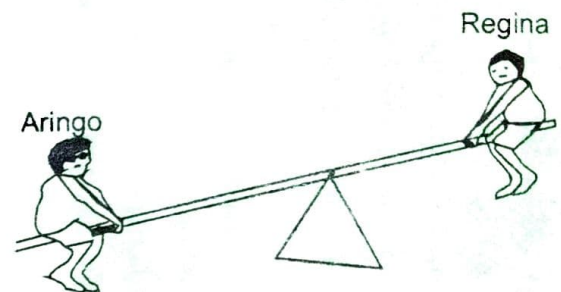
15. Which two physical properties of soil can be investigated using the set-up below?



- Capillarity and drainage
 - Drainage and soil texture
 - Water retention and drainage
 - Capillarity and water retention
16. Which one of the following consists of materials which cannot be separated using a magnet?
- Tin and copper
 - Zinc and aluminium
 - Steel and zinc
 - Brass and iron filings
17. When breathing out, the
- diaphragm relax
 - lungs expand
 - volume of the chest increases
 - diaphragm moves downwards

18. Which is the best way of controlling splash erosion?
- Mulching
 - Building gabbions
 - Contour ploughing
 - Terracing

19. The diagram below shows Aringo and Regina balancing on a see-saw.

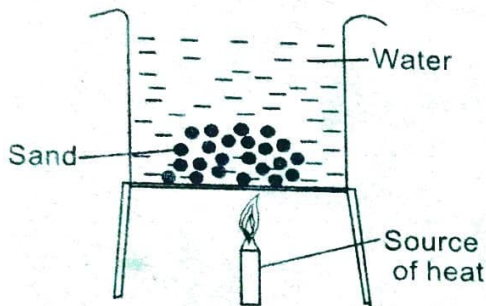


For Aringo to balance with Regina,

- Aringo should move away from the fulcrum
 - both of them should stand
 - Regina should move away from the fulcrum
 - Regina should move towards the fulcrum
20. Which one of the following is not a proper storage of medicines?
- Always complete the dosage given by the doctor
 - The medicine cupboard should be lockable
 - All medicines should be kept beyond the reach of children
 - Medicines should not be stored together with foodstuffs

21. Weeds should be
- planted in the field
 - mixed with other crops
 - controlled
 - encouraged to grow in the field

22. The diagram below represents a set-up that can be used to demonstrate a certain mode of heat transfer.



The process demonstrated is

- convection
 - conduction
 - diffusion
 - radiation
23. Which one of the following statements is not true about the solar system?
- Mars is the fourth planet from the sun
 - Jupiter is the largest planet
 - We use glue to mount the planets to the orbit
 - Venus is the brightest planet

24. Which one of the following is not an effect of noise?
- Irritability
 - Deafness
 - Madness
 - ringing in the ear

25. Which one of the following consists of only characteristics of wind pollinated flowers?
- Small amount of pollen grains, dull in colour
 - Loosely held anthers, sticky stigma
 - Feathery stigma, no scent
 - No nectar, brightly coloured petals

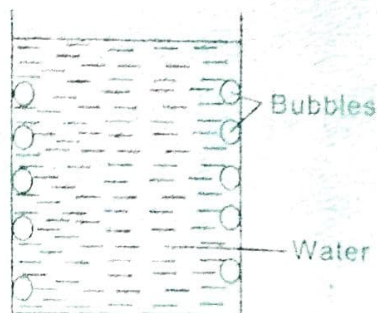
26. Which one of the following is not a source of light?
- Firefly
 - Moon
 - Star
 - Sun

27. Which one of the following is an effect of excessive use of fertilizer as a water pollutant?
- Excessive growth of water weeds
 - Water-borne diseases
 - Suffocation of water animals
 - Increase of water animals

28. The last stage when separating a mixture of sand and salt after addition of water is

- A. decanting
- B. evaporating
- C. filtering
- D. sieving

29. Class three pupils placed a glass of water outside in the sun on a hot day as shown below.



What conclusion did the pupils make?

- A. Water has no air
 - B. Air contains water
 - C. Water evaporated
 - D. Water contains air
30. Given below are descriptions of a certain stage of HIV infection
- i) It lasts between 6 weeks to 12 years
 - ii) If a medical test is done, the presence of HIV are discovered in the sample of blood.
 - iii) The infected person looks normal and healthy
 - iv) Can infect other people

Which stage of HIV is described above?

- A. Full blown
- B. Window
- C. Incubation
- D. Symptomatic

31. Which constituent of balanced diet do animals get when they are fed on bone meal?

- A. Minerals
- B. Protein
- C. Carbohydrates
- D. Fats and oils

32. Which one of the following activities is not a way of using water sparingly?

- A. Using drip irrigation
- B. Closing taps after use
- C. Repairing leaking pipes
- D. Mulching

33. Pale skin, dizziness, white palms and eyelids are treated by eating a lot of

- A. ripe banana
- B. spinach
- C. sweet potato
- D. bacon

34. Given below are nutrients needed by plants for a healthy growth. Which one of them is a micro-nutrient?

- A. Chlorine
- B. Hydrogen
- C. Magnesium
- D. Phosphorus

35. Which one of the following is a function of vitamin A in the diet?
- A. For good eyesight
 - B. Making strong bones
 - C. Helps to make the blood healthy
 - D. Helps in the clotting of blood

36. A person suffering from cholera loses a lot of water through
- A. diarrhoea and sweating
 - B. diarrhoea and vomiting
 - C. vomiting and sweating
 - D. diarrhoea and tears

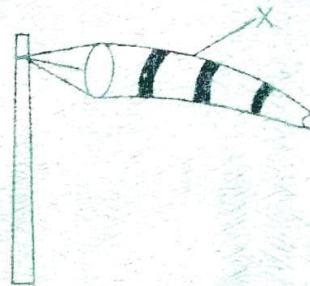
37. The following are characteristics of image formed on a plane mirror. Which one is not?
- A. Image is upright
 - B. The image forms behind the mirror
 - C. Image is inverted
 - D. Image is same size as object

38. Which one of the following animals is correctly matched with how it feeds?

| | Animal | How it feeds |
|----|-------------|--------------|
| A. | Grasshopper | pecking |
| B. | Spider | sucking |
| C. | Rabbit | chewing |
| D. | Butterfly | chewing |

39. Which one of the following animals belong to the same group as a scorpion?
- A. Crab
 - B. Locust
 - C. Millipede
 - D. Tick

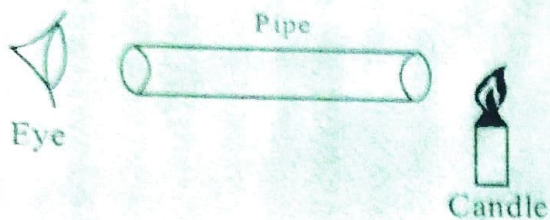
40. The diagram below shows a windsock. The suitable material for making part X is



- A. mosquito net
- B. plastic sheet
- C. polythene paper
- D. manilla paper

41. Which one of the following examples of levers has the position of load between the positions of effort and fulcrum when in use?
- A. Wheelbarrow
 - B. Spade
 - C. Lid opener
 - D. Crowbar

42. The diagram below represents a set-up that is used to investigate a certain property of light.



- The property investigated is that light
- A. is refracted
 - B. travels in a straight line
 - C. is dispersed
 - D. does not pass through opaque materials
43. Which one of the following sentences about a hurricane lamp is not correct?
- A. It has chimney that prevents the flame from flickering
 - B. It uses paraffin
 - C. It can safely use spirit
 - D. It has a wick
44. Which one of the following is not a reason for lighting a house?
- A. For safety
 - B. To scare away pests
 - C. To warm the house
 - D. To read comfortably
45. An object is pulled towards the ground by the
- A. weight
 - B. force of gravity
 - C. inertia
 - D. force of magnet
46. Which one of the following effects of drug abuse consists of only health effects?
- A. Theft and lack of concentration
 - B. Induced accidents and truancy
 - C. Rape and withdrawal symptoms
 - D. Addiction and loss of consciousness
47. A grade four pupil was observing the sky. She saw a thick white feathery clouds. These were signs of
- A. heavy rain falling soon
 - B. low temperature
 - C. fine weather
 - D. strong winds blowing
48. Which one of the following groups of foods make a balanced diet?
- A. Milk, bread, sweet potato
 - B. Meat, cabbage, ugali
 - C. Meat, beans, fish
 - D. Rice, green grams, milk
49. The component of soil that improves its water holding ability is
- A. mineral salts
 - B. air
 - C. organic matter
 - D. living organism
50. Which one of the following consists of pairs of biotic components of environment?
- A. Elephant and maize plants
 - B. Soil and water
 - C. Air and plants
 - D. Animals and water