

# ACHIEVERS FOCUS EXAMINATION SERIES



STANDARD 8 – 2020

**SCIENCE**

AF0048N

Time: 1 hour 40 minutes

## 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 on this booklet.
3. When you have chosen your answer, mark it on the **answer sheet**, not in this question booklet.

## HOW TO USE THE ANSWER SHEET

4. Use only an ordinary pencil
5. Make sure 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 the 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:

4. Which one of the following components of blood is involved in clotting of blood after injury?  
A. Plasma  
B. White blood cells  
C. Red blood cells  
D. Platelets

The correct answer is D

#### 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 set of boxes numbered 4, the box with letter D printed in it is marked.

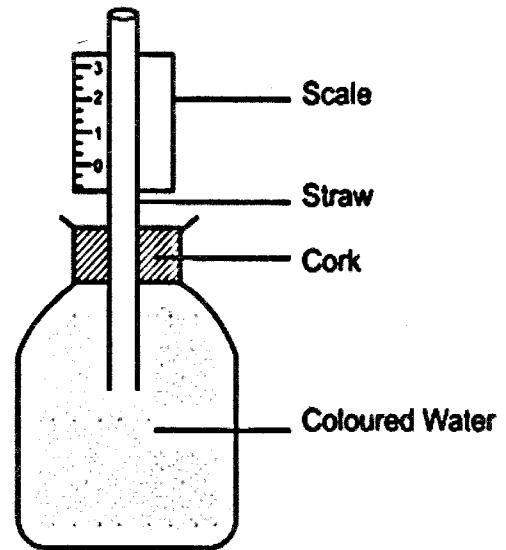
11. Your **dark line** *must* be within the box.
12. For each question **only one** box is to be marked in each set of four boxes.

Website: [www.achieversfocus.co.ke](http://www.achieversfocus.co.ke)

Email: [wegopublish@gmail.com](mailto:wegopublish@gmail.com)

- Which one of the following parts of the human excretory organs helps mainly in the removal of excess water in the body?
  - Lungs
  - Mouth
  - Skin
  - Kidneys
- Which one of the following is the function of canine in human teeth?
  - Biting and crushing
  - Tearing
  - Tearing and grinding
  - Crushing and grinding
- The following are sexually transmitted infections caused by bacteria except
  - Syphilis
  - Genital herpes
  - Gonorrhoea
  - Chancroid
- Three of the following are importance of pre-test counselling EXCEPT
  - It enables one to accept the outcome of the results.
  - It helps one to discuss fears and worries.
  - It enables one to acquire the basic facts about HIV/AIDs.
  - It helps one accept to be tested.
- The following are features of a certain type of clouds.
  - Mountainous in shape.
  - Dark grey in color.
  - Appear like bundles of cotton wool.
  - Are high in the sky.
 Which pair are for clouds that indicate strong rainfall?
  - (i) and (ii)
  - (ii) and (iii)
  - (iii) and (iv)
  - (ii) and (iv)
- The MAIN function of roots in plants growing in wet areas is to
  - Absorb water and mineral salts
  - Absorb oxygen
  - Tap water from underground
  - Keep the plant balanced in water.

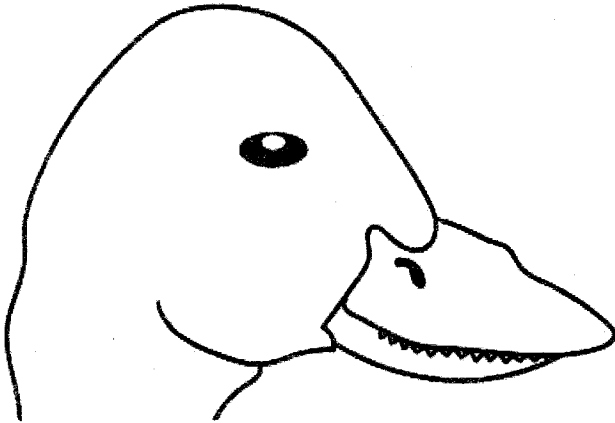
- The diagram below shows a simple improvised thermometer.



Which one of the following will make it measure small changes in temperature?

- Tightening the cork
  - Make the straw narrower
  - Increasing the temperature
  - Using a narrow bottle
- The following are characteristics of flowers.
    - Produces a lot of pollen grains.
    - Produces nectar.
    - Has sticky stigma.
    - Has long loosely attached anthers.
    - Produces a few pollen grains.
 Which pair of characteristics represents a wind pollinated flower?
    - (i) and (iv)
    - (i) and (ii)
    - (iv) and (v)
    - (ii) and (iii)
  - Which one of the following is the smallest planet?
    - Jupiter
    - Saturn
    - Mercury
    - Earth
  - Which one of the following is a characteristic of amphibians?
    - Lay their eggs on land
    - Have moist skins with scales
    - Live partly on water
    - Adults breathe through gills

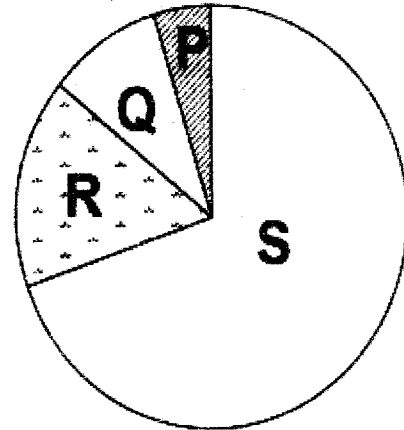
11. The diagram below represents a beak of a certain bird.



The bird is likely to be a

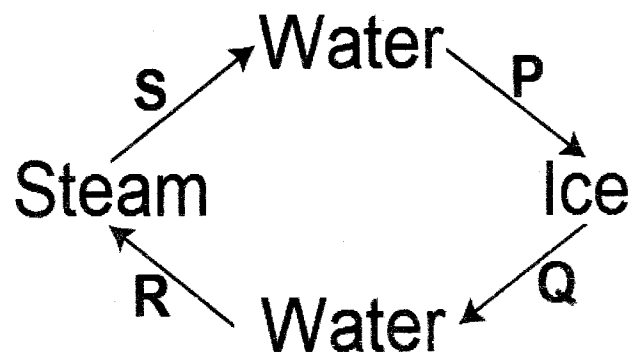
- A. Filter feeder
  - B. Nectar feeder
  - C. Flesh feeder
  - D. Grain feeder
12. Which one of the following is NOT a way of using water sparingly?
- A. Repairing leaking pipes
  - B. Closing taps when it is not in use
  - C. Using drip irrigation
  - D. Using sprinkler irrigation
13. Which one of the following is an advantage of hard water?
- A. Lathers easily with soap
  - B. Save soap during washing
  - C. Forms scum with soap
  - D. Suitable for drinking
14. The following are methods of maintaining simple tools.
- (i) Cleaning after use.
  - (ii) Proper storage.
  - (iii) Sharpening cutting edges.
  - (iv) Proper use of tools.
- Which pair consists only of methods for safety from accidents?
- A. (i) and (iv)
  - B. (i) and (iii)
  - C. (ii) and (iii)
  - D. (ii) and (iv)

15. The pie chart below shows components of air marked P, Q, R and S.



The following are the uses of the component marked P except

- A. Germination
  - B. Photosynthesis
  - C. Preserving food
  - D. Extinguish fire
16. The flow chart below shows the changes in states of matter.



Which two processes requires absorption of heat from the environment?

- A. Q and R
- B. S and P
- C. R and S
- D. P and Q

17. The following are statements that were given by a standard eight pupil in Victory School about gases.

- (i) Gases have no definite volume.
- (ii) Gases occupy space.
- (iii) Gases have no weight.
- (iv) Gases can be made to expand or contract.

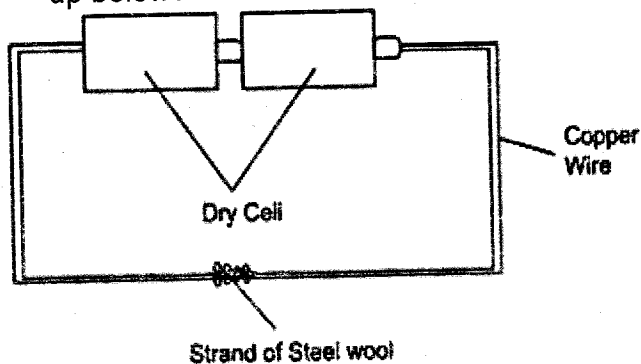
Which statement is not true about gas?

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

18. Which one shows correct processes of separating a mixture of iron fillings, sand and salt?

- A. Dissolving – filtration – use of magnet – evaporation
- B. Use of magnet – dissolving – filtration – evaporation
- C. Filtration – use of magnet – dissolving – evaporation
- D. Evaporation – dissolving – filtration – use of magnet

19. Which one of the following is the most appropriate energy transformation in the set up below?



- A. Chemical → electrical → magnetic
- B. Chemical → kinetic → heat → light
- C. Magnetic → chemical → electrical
- D. Chemical → electrical → heat → light

20. Formation of a rainbow can be demonstrated by the following activities EXCEPT when

- A. Placing a mirror in water to face the sun
- B. Observing the sun through a horizontal held transparent biro pen casing
- C. Placing a biro pen casing on water in a glass container
- D. Spraying water in the air from the mouth in the bright sunshine

21. Which one of the following is a source of electricity?

- A. Torch
- B. Dam
- C. Solar panel
- D. Biogas plant

22. Which one of the following does NOT store food in the same part as sugarcane?

- A. Sweet potatoes
- B. Cactus
- C. Irish potatoes
- D. Ginger

23. A pupil had the following signs and symptoms.

- (i) Sores in the corners of the mouth.
- (ii) Swollen arms and legs.
- (iii) Thin and brown hair that easily fall off.
- (iv) Loose and pale skin.

The pupil was likely suffering from

- A. Marasmus
- B. Kwashiorkor
- C. Anemia
- D. Rickets

24. Which one of the following components of the environment do all living organisms depend on directly?

- A. Air and plants
- B. Air and soil
- C. Air and water
- D. Mineral salts and air

25. Which one of the following practices is not harmful to the soil?

- A. Ploughing along the slope
- B. Burning of crop remains after harvest
- C. Disposal of vegetable refuse on soil
- D. Use of herbicides to control weeds

26. Which one of the following components of blood is CORRECTLY matched with its function?

- A. Red blood cells → Clotting of blood
- B. White blood cells → transport oxygen
- C. Platelets → fight germs
- D. Plasma → transport food

27. The following are some effects of drug abuse

- (i) Rape
- (ii) Addiction
- (iii) Drug induced accidents
- (iv) Truancy
- (v) Impaired judgment

Which one of the following consists only of social effects?

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

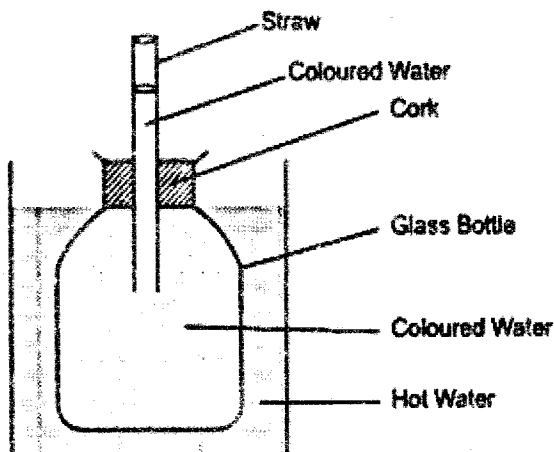
28. Which one of the following plants grows in nitrogen deficient soil?

- A. Butterwort
- B. Waterlily
- C. Dodder plant
- D. Mistletoe

29. Which one of the following pairs consists ONLY of farm animals that produce mutton?

- A. Goat and sheep
- B. Cow and sheep
- C. Cow and sheep
- D. Sheep and pig

30. The diagram below shows a setup that was used to demonstrate a certain property of matter.



The property being investigated is

- A. Liquids change the state when heated
- B. Solids expand when heated
- C. Liquids expand when heated
- D. Gases change the state when heated

31. Which one of the following is NOT an example of Conifers group of plants?

- A. Cypress
- B. Fern
- C. Pine
- D. Cedar

32. Which one of the following is TRUE about tilapia, frog and snakes?

- A. They have moist skin
- B. They have scales on their body
- C. They are cold blooded
- D. They breathe through lungs

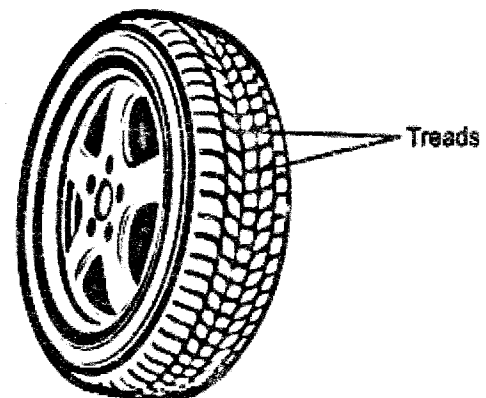
33. The following are methods of rotational grazing-except

- A. Tethering
- B. Paddockging
- C. Zero grazing
- D. Strip grazing

34. Which one of the following pairs of machines consists only of inclined planes?

- A. Staircase and wheelbarrow
- B. Ladder and staircase
- C. Claw hammer and ladder
- D. Spade and crowbar

35. The diagram below shows a treaded car tire.



The main reason of treading is to

- A. Make them look attractive
- B. Increase the grip
- C. Reduce friction
- D. Make them slippery

36. A large ship made of steel floats on water while a nail made of iron sinks. This is due to difference in
- Mass
  - Shape
  - Volume
  - Type of material
37. Transfer of heat by convection takes place in
- Liquids and gases
  - Solids and liquids
  - Gases and vacuum
  - Solids and vacuum
38. Which one of the following is an effect of HIV and AIDs to the individual?
- School dropouts
  - Low agricultural produce
  - Loss of man power
  - Poor performance
39. Which one of the following practices will NOT result to a person being struck by lightning?
- Sheltering under huge trees when it is raining
  - Fitting lightning arrestors on tall buildings
  - Leaning on walls when it is raining
  - Using an umbrella in open field when it is raining
40. Which one of the following statements is correct about reproduction in human beings?
- The zygote gets implanted in the walls of the uterus
  - The blood of the mother and fetus mix during gestation period
  - Fertilization takes place in the womb
  - Menstruation starts immediately after giving birth
41. A farmer noticed uniform carrying away soil in a garden field. This type of erosion can be controlled by
- Construction of gabions
  - Crop rotation
  - Planting cover crops
  - Planting Napier grass on strips
42. Which one of the following is NOT a method of conserving soil?
- Crop rotation
  - Mulching a banana plantation
  - Terracing
  - Continuous mono-cropping
43. The following are some characteristics of soil
- Fine particles.
  - Cracks when dry.
  - Poor drainage.
  - Good capillarity.
- The characteristics are for
- Clay soil only
  - Loam and sand soil
  - Loam soil only
  - Loam and clay soil
44. A plant which has weak stem and air sacs is likely to have
- Succulent stem
  - Broad leaves
  - Fleshy leaves
  - Widely spread roots
45. Which one of the following pair consists of non-magnetic materials ONLY?
- Zinc strip and silver coin
  - Steel wool and brass bowl
  - Paper clip and staple pins
  - Aluminum plate and cobalt rod
46. Which one of the following is NOT a function of all stems?
- Transport food
  - Support the plant parts
  - Food storage
  - Protection of the plant

47. The following practices that help to prevent the spread of waterborne diseases.

- (i) Wearing protective clothing when walking in stagnant water.
- (ii) Washing food that is eaten raw.
- (iii) Using toilets for urination.
- (iv) Covering pit latrines.
- (v) Maintain proper hygiene and sanitation.

Which pair of practices will help control the spread of cholera?

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

48. Which one of the following sources of energy is renewable?

- A. Diesel
- B. Firewood
- C. Coal
- D. Petrol

49. What is the main function of colostrum to an infant?

- A. Bonds baby and mother
- B. Readily available
- C. It is found at the right temperature
- D. It provides immunity against diseases

50. During a science lesson, pupils were told to drop books from different heights. What were they likely to investigate?

- A. Loudness and softness of sound
- B. Highness and lowness of sound
- C. Sound pollution
- D. How sound travel

50. A car travelled 216 km at an average speed of 48 km/hr. On the return journey the average speed increased to 72 km/hr. Calculate the average speed of the whole journey in km/hr.
- A. 57.6
  - B. 60
  - C. 28.8
  - D. 68.6