



THE KENYA NATIONAL EXAMINATIONS COUNCIL

SCIENCE

Monitoring Learner Achievement at Primary School Level in Kenya

Class 8



GLOBAL
PARTNERSHIP
for EDUCATION



REPUBLIC OF KENYA
MINISTRY OF EDUCATION



LEARNER'S NAME: _____

LEARNER'S ADMISSION NO. _____

INSTRUCTIONS TO LEARNERS

1. This paper consists of **50** questions.
2. Answer all the questions by circling the correct answer.

Time: 1 hour 40 minutes

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SCORING GRID (50 marks)

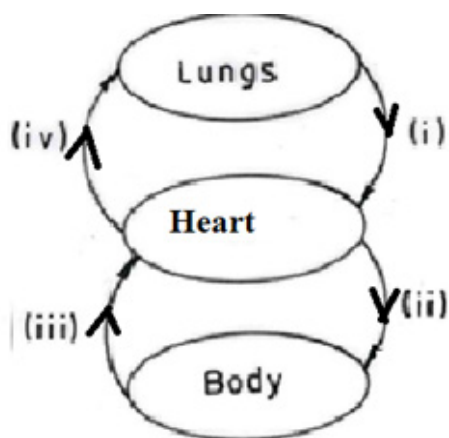
Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Mark (s)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Score															

Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Mark (s)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Score															

Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Mark (s)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Score															

Question	46	47	48	49	50	TOTAL SCORE
Mark (s)	1	1	1	1	1	50
Score						

- In the human digestive system, absorption of food takes place in the
 - stomach
 - large intestine
 - rectum
 - small intestine.
- Which one of the following processes refers to the fusion of the egg and sperm?
 - Implantation.
 - Parturition.
 - Fertilization.
 - Ovulation.
- The diagram below represents the human circulatory system.

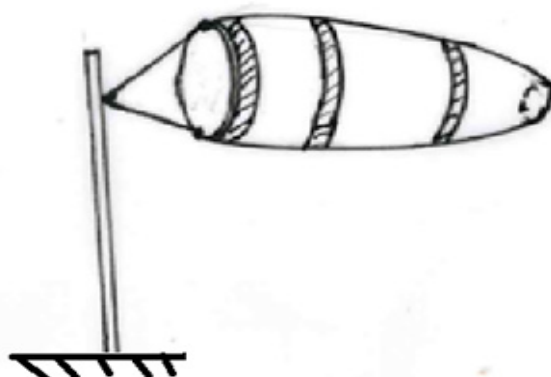


- Which one of the following pairs represents vessels that carry oxygenated blood?
- (i) and (ii).
 - (i) and (iv).
 - (ii) and (iii).
 - (ii) and (iv).
- The following practices help to maintain strong and healthy teeth **except**
 - eating vegetables
 - chewing sugarcane
 - eating cakes
 - drinking milk.
 - Which one of the following vaccines is administered **only** at birth?
 - DPT.
 - BCG.
 - Measles.
 - Polio.

- The following are some social and health-related effects of drug abuse:
 - Truancy
 - Impaired judgement
 - Marital conflict
 - Addiction
 - Loss of consciousness
 - Rape.

Which one of the following combinations consists **only** of health-related effects?

- (i), (iii), (vi)
 - (i), (iv), (vi)
 - (ii), (iv), (v)
 - (ii), (iii) (v)
- The fourth and the seventh planets from the sun respectively are
 - Earth and Saturn
 - Venus and Neptune
 - Jupiter and Mercury
 - Mars and Uranus.
 - The diagram below represents a weather measuring instrument.

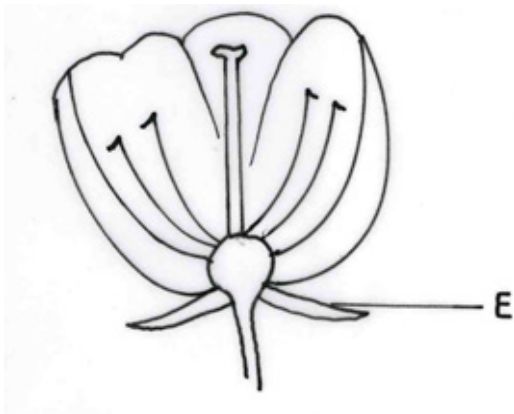


- From the diagram, it can be concluded that
- the weather was cloudy
 - there was heavy rain
 - the weather was hot
 - there was strong wind.

9. A pupil observed the following characteristics of clouds:
- White in colour
 - Low in the sky
 - Dark grey in colour
 - Flat base
 - High in the sky.

Which characteristics describe the cumulus cloud?

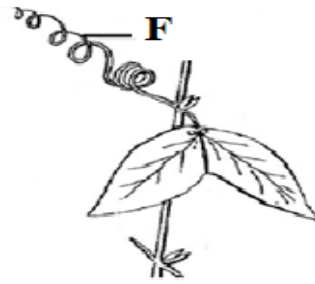
- (i), (iii), (v)
 - (i), (iv), (v)
 - (ii), (iii), (iv)
 - (iii), (iv), (v).
10. The diagram below represents a flower from a certain plant.



The **main** function of the part labelled **E** is

- formation of the fruit
- protection
- support
- to attract insects.

11. The diagram below represents part of a stem of a certain plant.



The function of the part labelled **F** is

- photosynthesis
 - transportation
 - protection
 - support.
12. Which one of the following crop pests is **not** correctly matched to the part of the plant it attacks?

	Pests	Part of the plant attacked
A.	moles	root
B.	stalk borers	stem
C.	cutworms	seed
D.	aphids	leaf

13. During a nature walk, pupils observed plants whose roots had the following characteristics:
- Deep roots
 - Shallow roots
 - Main root centrally located
 - Same size roots growing from a common point of the stem.

Which of the characteristics apply to roots of a bean plant?

- (i) and (ii)
- (i) and (iii)
- (ii) and (iv)
- (iii) and (iv).

14. Which method of controlling weeds would a farmer apply in a nursery bed?
- Uprooting.
 - Digging out.
 - Applying herbicides.
 - Slashing.

15. Which one of the following groups consists **only** of useful small animals?
- Termites, butterflies, locusts.
 - Bees, earthworms, locusts.
 - Termites, bees, earthworms.
 - Bees, butterflies, earthworms.

16. Which one of the following animals is **correctly** matched with its products?

	Animal	Products
A.	Cattle	Wool and beef.
B.	Sheep	Mutton and milk.
C.	Goat	Milk and mutton.
D.	Poultry	Beef and eggs.

17. The following are characteristics observed in certain vertebrates. Presence of
- teeth
 - gills
 - tail
 - fins
 - scales.

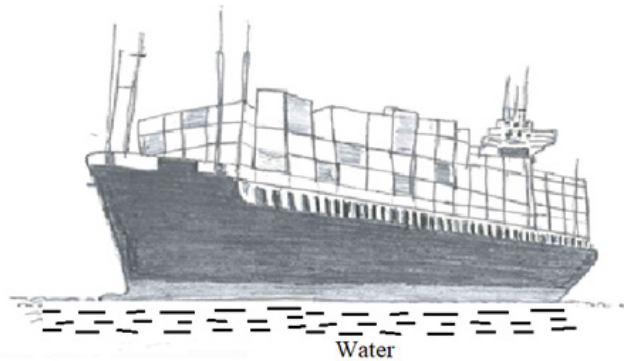
Which of the characteristics belong to fish **only**?

- (i) and (ii).
 - (ii) and (iv).
 - (iii) and (iv).
 - (iii) and (v).
18. The following are methods of rotational grazing **except**
- tethering
 - paddocking
 - zero grazing
 - strip grazing.

19. Domestic animals are sprayed to control the following **except**
- fleas
 - ticks
 - tsetse-flies
 - tapeworms.

20. A pupil had the following signs and symptoms:
- Skin rash
 - Blood in urine
 - Diarrhoea.
- The pupil was likely to be suffering from
- bilharzia
 - typhoid
 - cholera
 - malaria.

21. The diagram below shows a certain use of water.

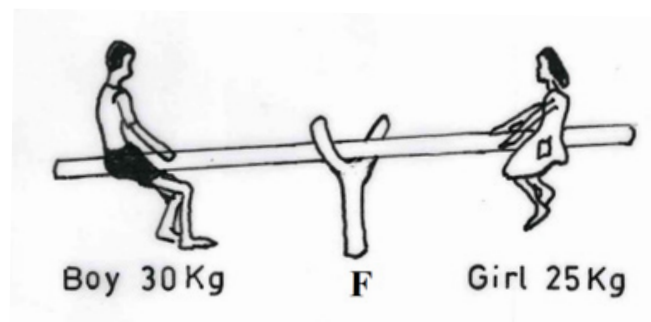


The diagram shows the use of water

- for fish farming
 - for recreation
 - in the industry
 - for transport.
22. A pupil intended to cut a piece of timber to repair a desk. The most appropriate tool for the work would be a
- hammer
 - knife
 - panga
 - saw.

23. A pupil takes 20 minutes to walk to school on a path covered with red soil during dry weather. During the rainy season, the path becomes slippery making the pupil to take longer time to cover the same distance. To walk faster, the following may be done **except**
- wearing shoes with treads
 - spreading murram on the path
 - compressing the path to make it firm
 - tarmacking the path.

24. The diagram below shows two pupils playing on a see-saw.



In order to balance,

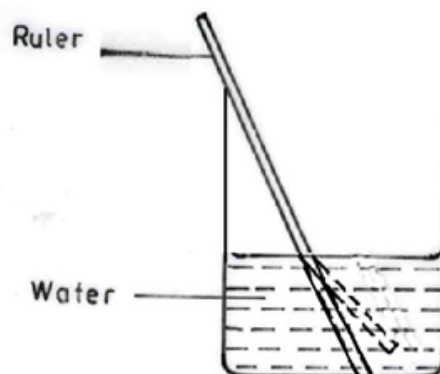
- the boy should move closer to F
 - the girl should move closer to F
 - both should sit at equal distance from F
 - the boy should move further away from F.
25. Which one of the following sources of heat is **not** correctly matched to its use?

	Sources of heat	Use
A.	Gas	Ironing
B.	Sun	Drying
C.	Fire	Warming
D.	Electricity	Cooking

26. Which one of the following best explains why people should **not** board matatus that play loud music?
- Makes communication difficult.
 - Loud sounds damage the eardrums.
 - Loud sounds may cause headaches.
 - Loud sounds may cause hallucinations.

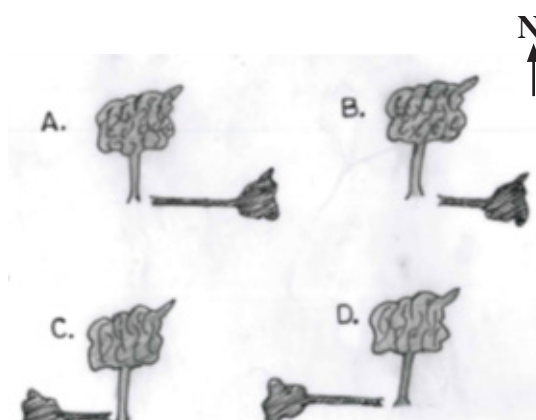
27. Which one of the following groups of materials consists **only** of good conductors of heat?
- Plastic, glass, copper.
 - Glass, copper, gold.
 - Iron, silver, plastic.
 - Iron, gold, silver.

28. The diagram below represents a set-up used to investigate a certain aspect of light.



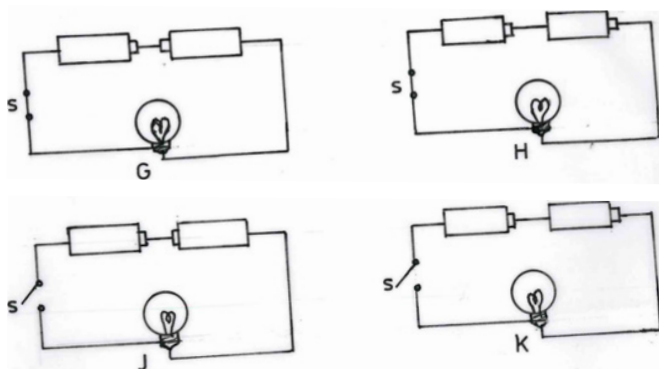
The aspect being investigated is

- reflection of light
 - refraction of light
 - dispersion of light
 - how light travels.
29. A pupil observed the shadow of a certain tree at different times of the day. Which one of the following diagrams shows the shadow that was observed late in the afternoon?



30. A group of pupils is walking home from school when it starts raining heavily with thunderstorms and lightning. Which one of the following is the safety precaution they should take?
- Shelter in the nearest verandah.
 - Share any available umbrella.
 - Avoid walking through pools of water.
 - Shelter together under a big tree.

31. The diagrams below represent simple electrical circuits.



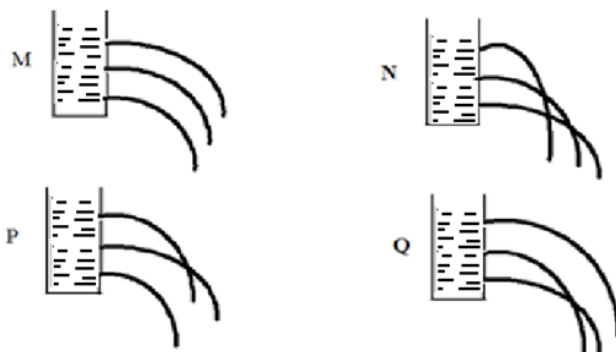
In which of the diagrams will the bulb light?

- G
 - H
 - J
 - K
32. The following are examples of items that use electricity at home **except**
- solar panel
 - radio
 - refrigerator
 - mobile phone.
33. Which one of the following effects of moving air is **least** likely to be observed in an arid area?
- Roofs being blown off.
 - Soil being blown away.
 - Trees being felled.
 - Excessive dust in air.

34. When cleaning in the kitchen, a child accidentally mixed salt and flour. one of the following would be the last step in separating the mixture?
- Decanting.
 - Evaporating.
 - Filtering.
 - Mixing with water.

35. Which one of the following consists of substances that have a definite volume?
- Water, wax, vapour.
 - Oil, plasticine, air.
 - Oil, wax, water.
 - Vapour, plasticine, air.

36. After an experiment, pupils drew the following diagrams to illustrate the relationship between pressure and depth in liquids.



Which diagram **correctly** shows the relationship?

- M
 - N
 - P
 - Q
37. A dairy farmer planted fodder crops. Which one of the following pairs of gases are used to make plant food in fodder crops?
- Oxygen and rare gases.
 - Carbon dioxide and rare gases.
 - Nitrogen and oxygen.
 - Nitrogen and carbon dioxide.

38. During meal time, the following habits were observed among pupils:
- (i) chewing food with an open mouth
 - (ii) eating reasonable quantities of food at a time
 - (iii) chewing food properly before swallowing
 - (iv) talking with food in the mouth.

Which of the observed habits are discouraged when having meals?

- A. (i) and (iii)
 - B. (i) and (iv)
 - C. (ii) and (iii)
 - D. (ii) and (iv).
39. Which one of the following explains the process of drying as a food preservation method? Drying
- A. reduces moisture
 - B. improves flavour
 - C. kills micro-organisms
 - D. Forms a protective coat.
40. On the way to school, a pupil observed a person with the condition shown in the diagram below.



The condition observed is caused by lack of

- A. proteins in the diet
- B. calcium and vitamin D in the diet
- C. fats in the diet
- D. iron in the diet.

41. Which one of the following is **not** an important practice when handling food?
- A. boiling water to wash the food.
 - B. cleaning food that is eaten raw.
 - C. cleaning utensils before use.
 - D. washing hands before handling food.

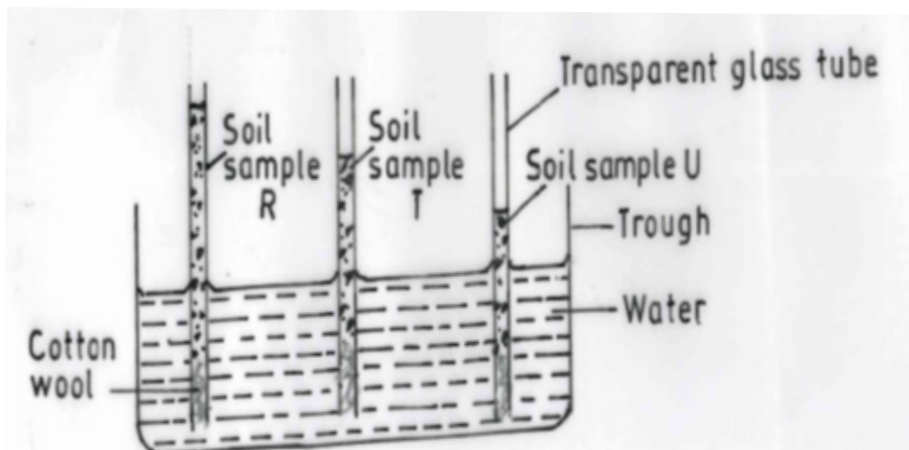
42. Which one of the following groups of foods does **not** consist of a balanced diet?
- A: chips, eggs, sausages, green bananas.
 - B: ugali, fish, kales, orange.
 - C: rice, beans, cabbage, pawpaw.
 - D: green bananas, chicken, kales, avocado.

43. Which one of the following statements **best** explains the importance of fibre in a diet?
- A. helps to repair worn out body tissues
 - B. helps the body to retain water
 - C. aids movement of food in the digestive system
 - D. helps maintain shape of the alimentary canal.

44. Which one of the following pairs of foods are **correctly** matched to the nutrients they provide?

	Foods	Food Nutrient
A.	Sorghum, rice	Oils
B.	Pawpaw, orange	Carbohydrates
C.	Coconut, groundnut	Vitamins
D.	Beans, fish	Proteins

45. Which one of the following consists **only** of the major components of environment?
- Water, buildings, air.
 - Plants, animals, soil.
 - Soil, light, sound.
 - Heat, water, soil.
46. Which one of the following statements is **not** true about environment?
- It consists of the living things only.
 - It consists of living and non-living things.
 - It refers to all things surrounding a living thing.
 - Water, air and soil make the non-living part.
47. Which one of the following is **not** a way of conserving water?
- Mulching.
 - Using laundry water to clean a house.
 - Washing vehicles in a water body.
 - Recycling.
48. Which one of the following is a compound fertilizer?
- Urea.
 - Ammonium Sulfate.
 - Muriate of potash.
 - Diammonium phosphate.
49. The diagram below represents a set-up used by pupils to investigate a certain property of soil.



The property of soil being investigated is

- drainage
- fertility
- capillarity
- texture.

50. The best soil for modelling has
- high water retention
 - low capillarity
 - coarse particles
 - high drainage.

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