



# STANDARD SEVEN

DISCOVERY  
EXAMS

## DISCOVERY NATIONAL EXAMINATIONS KCPE COMPLIANT 2021

### SCIENCE

Time: 1 hour 40 minute

#### 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 this question booklet.

#### HOW TO USE THE ANSWER SHEET

4. Use only 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 mark outside the boxes.
8. Keep the answer sheet as clean as possible and **DO NOT FOLD IT**.
9. For each of the questions 1-50, 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.

24. Animals that feed on plants **ONLY** are called \_\_\_\_\_.
- A. rodents
  - B. omnivorous
  - C. carnivores
  - D. herbivorous

The correct answer is **D** on the answer sheet:

20 [A] [B] [C] [D] 21 [A] [B] [C] [D] 22 [A] [B] [C] [D] 23 [A] [B] [C] [D] 24 [A] [B] [C] [D]

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

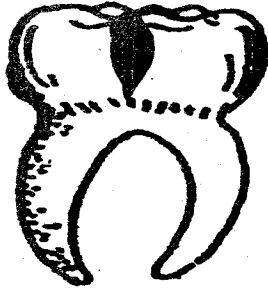
This question paper consist of 8 printed pages

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TURN OVER

1. The diagram below represents a tooth.



The type of teeth infection labelled illustrates:-

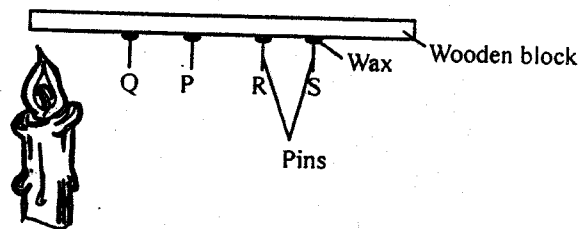
- A. cavity  
 B. dental caries  
 C. bleeding gums  
 D. dental plague
2. Ships and ferries are heavy. They float on water because of their:-  
 A. shape  
 B. material  
 C. size  
 D. heaviness
3. Roughages are encouraged in our diet always. What is the importance of having them?  
 A. Helps in absorption of water and minerals.  
 B. Convert sugar to glucose.  
 C. Helps in preventing constipation.  
 D. Softens the food for easy swallowing.
4. Which of the following correctly shows sources of water?  
 A. Rainfall, river, well.  
 B. Tap, river, lake.  
 C. Rainfall, river, lake.  
 D. Dam, spring, tap.

5. Which of the following sources provide livestock with fats and oils?  
 A. Rice husks, honey and wheat bran.  
 B. Cotton seeds, fish meal and sunflower.  
 C. Sunflower, molasses and banana stem.  
 D. Fish meal, legumes and cotton.

6. Absorption of digested food takes place in the :-  
 A. stomach  
 B. colon  
 C. anus  
 D. ileum

7. The type of vaccine given at birth is:-  
 A. B.C.G  
 B. D.P.T  
 C. antipolio  
 D. measles

8. A standard 6 pupil from Mwanacha primary school set up an experiment below.



Which of the pins Q, P, R and S dropped second last?

- A. R.  
 B. P.  
 C. None.  
 D. Q.

9. A child was suffering from a certain disease. She had the following signs:  
- *very weak*  
- *she looked like an old woman*  
- *cries a lot*  
- *shape of bones became visible underneath the skin*

The child was **likely** to be suffering from:-

- A. goitre  
B. kwashiorkor  
C. marasmus  
D. anaemia
10. Which one of these plants has a tap root system?  
A. Maize.  
B. Onion.  
C. Coconut.  
D. Mango.
11. Which one of the following physical changes takes place in girls only during adolescence?  
A. Increase in height and weight.  
B. Menstrual flow begins.  
C. Experience wet dreams.  
D. Beard grow.
12. The bouncing off of light is called:-  
A. refraction  
B. translucent  
C. dispersion  
D. reflection

13. A child with the following signs was **likely** to be suffering from:-  
i) *Itching in bowels and bladder*  
ii) *Blood stains in urine and stool*  
iii) *Fever*  
iv) *A cough may develop*  
A. cholera  
B. malaria  
C. bilharzia  
D. typhoid

14. The most abundant component of the environment comprises:-  
A. plants  
B. water  
C. air  
D. soil

15. Which of the following food preservation methods **does not** preserve food by water from food?  
A. Drying.  
B. Smoking.  
C. Freezing.  
D. Salting.

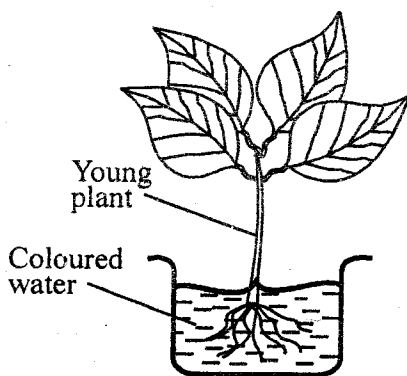
16. The texture of soil is determined by:-  
A. size of soil particles  
B. mineral particles  
C. moisture in the soil  
D. living organisms in the soil

17. Which list **does not** contain any protective foods?  
A. Water melon, green grains, yams.  
B. Green bananas, pawpaws, beef.  
C. Fish, kales, ugali.  
D. Potatoes, beef and milk.

18. In a flower, fertilization takes place in the:-  
 A. stigma  
 B. pollen tube  
 C. ovary  
 D. ovule
19. The blood vessel on which pulse rate is felt is:-  
 A. the aorta  
 B. artery  
 C. vein  
 D. capillary
20. Which one of the following weeds is dispersed by animals from one place to another naturally?  
 A. Sodom apple.  
 B. Black jack.  
 C. Oxalis.  
 D. Wandering jew.
21. Three of the following plants have common characteristics. Which one is **not**?  
 A. Algae.  
 B. Toadstools.  
 C. Puffballs.  
 D. Mushrooms.
22. If the word EXAM is written on a piece of paper and the paper placed in front of a mirror. The word would appear as:-  
 A. EXAM  
 B. EXVW  
 C. MAXE  
 D. WAXE
23. The micro-organisms that causes malaria are called:-  
 A. mosquitoes  
 B. anopheles mosquitoes  
 C. plasmodium parasites  
 D. plasmodium mosquitoes
24. The following are field pests **except**:-  
 A. aphids  
 B. white ants  
 C. cutworms  
 D. weaver birds
25. Which one of the following is both wild and domestic animal?  
 A. Ostrich  
 B. Hare  
 C. Fish  
 D. Dog
26. The following are food crops **except**:-  
 A. beverages  
 B. legumes  
 C. cereals  
 D. fruits
27. Which one of the following is **not** a form of special sound?  
 A. Screaming.  
 B. Ringing a bell.  
 C. Hooting.  
 D. Singing.
28. The correct unit for measuring rainfall is the:-  
 A. raingauge  
 B. millilitre  
 C. millimetre  
 D. newtons

29. Which one of the following is **not** part of the gut?  
 A. Mouth.  
 B. Liver.  
 C. Anus.  
 D. Rectum.

30. Class 6 pupils of Dadiira primary school did an experiment below. What were they investigating?



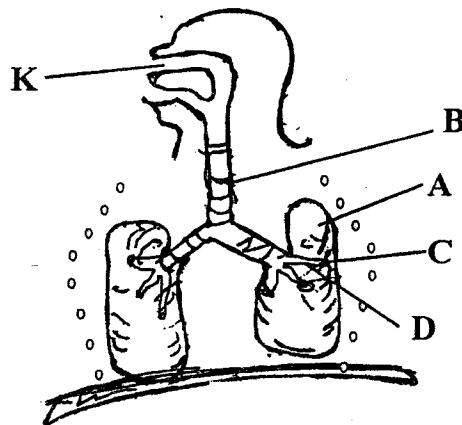
- A. Absorption in plants.  
 B. Photosynthesis in plants.  
 C. Transportation of water and mineral salts in plants.  
 D. Transpiration in plants
31. Which one of the following is **not** a rotational grazing method?  
 A. Strip grazing.  
 B. Paddockking.  
 C. Herding.  
 D. Tethering.
32. Gabions help to conserve soil in an environment by controlling:-  
 A. sheet erosion  
 B. splash erosion  
 C. gully erosion  
 D. rill erosion

33. Salt licks and bone meal are important sources of:-  
 A. vitamins  
 B. fats and oils  
 C. minerals  
 D. proteins

34. Which one of the following part of a seed develops into a shoot?  
 A. Radicle.  
 B. Cotyledon.  
 C. Testa.  
 D. Plumule.

35. The following parts of a flower wither after fertilization. Which one **does not**?  
 A. Petal.  
 B. Anthers.  
 C. Ovary.  
 D. Sepals

Use the diagram below to answer the following questions 36 - 37.



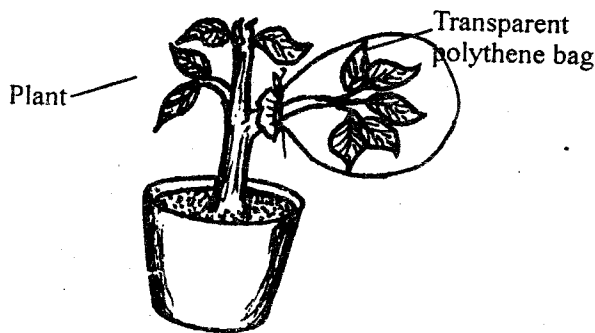
36. The part marked **D** is called:-  
 A. bronchus  
 B. alveoli  
 C. Bronchiole  
 D. trachea

37. Air is cleaned in the part marked:-  
 A. B  
 B. D  
 C. K  
 D. C

38. Amos was suffering from HIV/AIDS. He experienced the following signs:  
 a) *Loss of much weight within a short period*  
 b) *Frequent emptying of bowels*  
 c) *persistent cough*  
 d) *Skin rashes*

In which stage of HIV infection was he **likely** to be:-

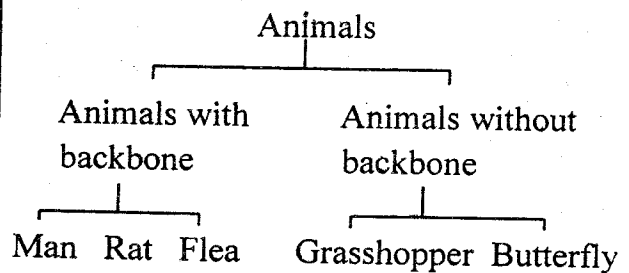
- A. Window stage  
 B. incubation stage  
 C. symptomatic stage  
 D. full-blown stage
39. Which process is **likely** to be taking place in the set-up below if the covered leaf was dry?



- A. Evaporation.  
 B. Transpiration.  
 C. Digestion.  
 D. Photosynthesis.

40. A commercial rain gauge has the parts made of metal in order to:-  
 A. make it look attractive  
 B. make it easy to paint  
 C. withstand harsh outdoor weather conditions  
 D. for it to expand and contract

Study the diagram below and use it to answer question 41.



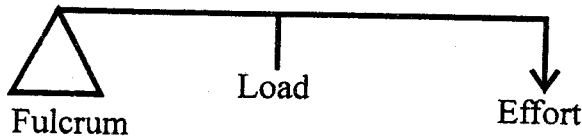
41. Which animal is **wrongly** placed?  
 A. Man.  
 B. Grasshopper.  
 C. Flea.  
 D. Rat.
42. Which one of the following animals is an egg-laying mammal?  
 A. Reptiles.  
 B. Fish.  
 C. Birds.  
 D. Duck-billed platypus.
43. Which one of the following **does not** cause tooth decay?  
 A. Eating biscuits.  
 B. Eating Sugary foods.  
 C. Drinking water.  
 D. Brushing teeth once in a term.

44. Dark or grey heavy mountains clouds which appear low in the sky are called:-
- A. cumulus
  - B. stratus
  - C. nimbus
  - D. cirrus

45. Which one of the following is **not** an artificial source of heat?
- A. Candle.
  - B. Sun.
  - C. Electricity.
  - D. Lamp.

46. The nutrients that prevents scurvy is:-
- A. vitamin B
  - B. vitamin A
  - C. vitamin D
  - D. vitamin C

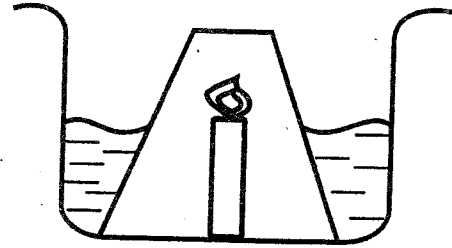
47. The diagram below represents a machine in use.



The machine presented is a:-

- A. wheelbarrow and crow bar
  - B. crow bar only
  - C. crow bar and claw hammer
  - D. wheelbarrow only
48. Which one of the following is **not** an excretory organ?
- A. Skin.
  - B. Lungs.
  - C. Anus.
  - D. Kidneys.

49. A std 7 pupils from Khunyangu primary set up an experiment below. Use it to answer question 49.



When the lid candle is carefully covered with along glass, it continues burning for a while but goes out after a short period. This happens because the:-

- A. water in the plate rise up and extinguishes the candle
  - B. candle burns using most of the oxygen in the glass and then goes out
  - C. glass prevents the candle from burning immediately it is placed in it.
  - D. candles burn but the nitrogen it produces extinguishes it
50. Which statement is **false** during thunderstorm? A person should:-
- A. wear shoes with stick rubber soles
  - B. walk in open fields carrying metallic objects
  - C. not to stand in pool of water
  - D. not to shelter under a tall tree