

220

L.J. H. S. C. E. 2024

GENERAL SCIENCE

Objective Test

1 hour

1

**THE WEST AFRICAN EXAMINATIONS COUNCIL**

**Liberia Junior High School Certificate Examination**

**GENERAL SCIENCE 1**

PAPER 1  
OBJECTIVE TEST  
[40 marks]

1 hour

Answer all the questions.

Paper 1 contains sixty objective questions. Each question is followed by four options lettered A to D. Choose the correct answer and shade in pencil on your answer sheet, the answer space which bears the same letter as the option you have chosen. Give only one answer to each question.

An example is shown below.

The mass of an object is measured by an instrument called a/an

- A. ammeter.
- B. barometer.
- C. beam balance.
- D. spring balance.

The correct answer is beam balance which is lettered C; therefore, answer space C would be shaded.

[A]

[B]

[C]

[D]

Think carefully before you shade the answer space(s). Erase completely any answer(s) you wish to change.

Do all rough work on this question paper.

1. A typical example of an invertebrate is a/an
  - A. snake.
  - B. frog.
  - C. crab.
  - D. ape.
2. Which layer of the earth's atmosphere contains about 75% of all the gases?
  - A. Mesosphere
  - B. Stratosphere
  - C. Troposphere
  - D. Exosphere
3. Food particles in the human body can be broken down by the process of
  - A. respiration.
  - B. excretion.
  - C. nutrition.
  - D. digestion.
4. The nucleus
  - A. controls the activities of the cell.
  - B. provides energy for the cell.
  - C. removes waste from the cell.
  - D. allow materials into and out of the cell.
5. How many atoms are there in the formula  $H_2O$ ?
  - A. 2
  - B. 3
  - C. 4
  - D. 5
6. The locomotive organelle in paramecium is the
  - A. cilia.
  - B. pseudopods.
  - C. jointed legs.
  - D. flagella.

7. Which part of the flower bears the fruit?  
A. Anther  
B. Ovary  
C. Pistil  
D. Stamen
8. Which of the following structures is not a part of the pistil of the flower?  
A. Anther  
B. Style  
C. Ovary  
D. Stigma
9. The color of light which is **mostly** deviated when white light is passed through a glass prism is  
A. blue.  
B. red.  
C. yellow.  
D. violet.
10. Sound travels **fastest** through which of the below media?  
A. Water  
B. Air  
C. Iron  
D. Vacuum
11. An example of a *second class* lever is a  
A. wheel barrow.  
B. pair of scissors.  
C. claw hammer.  
D. broom.
12. Which of the following substances is **most** soluble in water?  
A. Coffee  
B. Salt  
C. Sugar  
D. Flour
13. The **smallest** stable particle of an element that exists by itself is called a/an  
A. ion.  
B. atom.  
C. electron.  
D. molecule.
14. The unlike poles of a magnet  
A. are the strongest.  
B. are the weakest.  
C. repel each other.  
D. attract each other.
15. The nucleus of an atom is made up of  
A. protons and neutrons.  
B. protons and electrons.  
C. electrons and neutrons.  
D. protons only.
16. Steam is converted to liquid through the process called  
A. boiling.  
B. condensation.  
C. evaporation.  
D. melting.
17. At night, plants take in  
A. oxygen.  
B. carbon dioxide.  
C. nitrogen.  
D. glucose.
18. Which of the following breaks down proteins into large fragments called peptides?  
A. Lipase  
B. Trypsin  
C. Maltose  
D. Bile
19. The chemical formula for glucose is  
A.  $C_{11}H_{11}O_{11}$ .  
B.  $C_6H_{12}O_{11}$ .  
C.  $C_6H_{12}O_6$ .  
D.  $C_6H_{11}O_6$ .

20. The chemical name for *caustic soda* is  
A. calcium carbonate.  
B. calcium hydroxide.  
C. sodium chloride.  
D. sodium hydroxide.
21. The chemical formula for sodium carbonate is  
A.  $\text{NaCO}_3$ .  
B.  $\text{SiCO}_3$ .  
C.  $\text{Na}_2\text{CO}_3$ .  
D.  $\text{NaHCO}_3$ .
22. A pair of pliers in use is an example of a/an  
A. inclined plane.  
B. first-class lever.  
C. second-class lever.  
D. third-class lever.
23. Sublimation is a change of state of matter from  
A. liquid to solid.  
B. solid to gas.  
C. liquid to gas.  
D. gas to solid.
24. How many meters are there in 5 kilometres?  
A. 50  
B. 500  
C. 5,000  
D. 50,000
25. The chemical symbol Na represents the element  
A. nitrogen.  
B. neon.  
C. sodium.  
D. magnesium.
26. Which of the following compounds is a base?  
A. NaOH  
B. HCl  
C.  $\text{H}_2\text{SO}_4$   
D. NaCl
27. Which of the following substances is produced during photosynthesis?  
A. Chlorophyll  
B. Glucose  
C. Water  
D. Carbon dioxide
28. Which of the following animals is a carnivore?  
A. Goat  
B. Sheep  
C. Cow  
D. Lion
29. The kind of food that we eat every day is our  
A. diet.  
B. menu.  
C. nutrients.  
D. dessert.
30. Which of the following foods is a source of vitamins?  
A. Meat  
B. Fish  
C. Egg  
D. Fruit
31. Scurvy is a direct result of deficiency in  
A. vitamin D.  
B. vitamin C.  
C. vitamin B<sub>1</sub>.  
D. vitamin A.
32. Which of the following gases is given off during photosynthesis?  
A. Hydrogen  
B. Carbon dioxide  
C. Oxygen  
D. Nitrogen
33. Which of the following diseases is not communicable?  
A. Leprosy  
B. Tuberculosis  
C. Chicken pox  
D. Typhoid

34. Which of the following compounds is a salt?

- A.  $\text{CaSO}_4$
- B.  $\text{NH}_3$
- C.  $\text{KOH}$
- D.  $\text{HCl}$

35. What is the density of an object with mass 60 grams and a volume of 0.5 liters?

- A. 0.0083g/l
- B. 0.08g/l
- C. 0.120g/l
- D. 120g/l

36. A wheelbarrow is an example of a

- A. 1<sup>st</sup> class lever.
- B. 2<sup>nd</sup> class lever.
- C. 3<sup>rd</sup> class lever.
- D. 4<sup>th</sup> class lever.

37. Which of the following is **not** a component of the nervous system?

- A. Spinal cord
- B. Brain
- C. Dendrites
- D. Arteries

38. How many pounds are there in 25kg of rice?

- A. 100 lbs
- B. 75 lbs
- C. 50 lbs
- D. 25 lbs

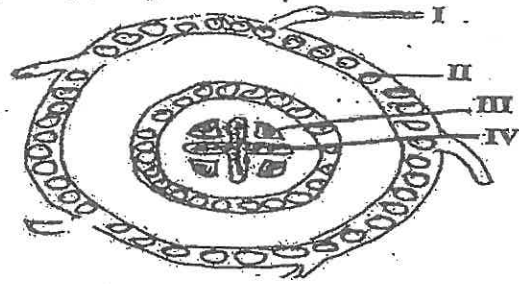
39. The symbol  in an electric circuit diagram represents a/an

- A. galvanometer.
- B. switch.
- C. cell.
- D. resistance.

40. The process by which a solid change to vapor is known as

- A. condensation.
- B. filtration.
- C. evaporation.
- D. sublimation.

The *diagram below represents a transverse section of a root.* Use it to answer Questions 41 to 44



41. The structure labelled I is called the

- A. epidermis.
- B. cortex.
- C. root hair.
- D. endodermis.

42. The structure labelled III is called the

- A. epidermis.
- B. endodermis.
- C. phloem.
- D. xylem.

43. The structure labelled IV is called the

- A. endodermis.
- B. cortex.
- C. phloem.
- D. xylem.

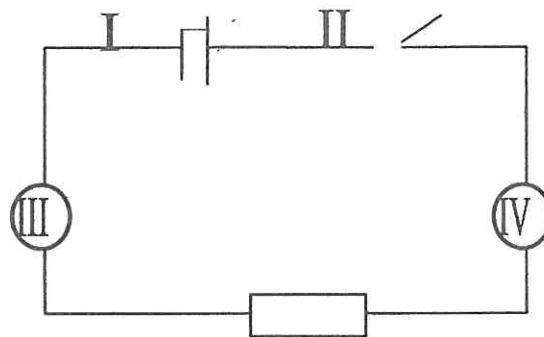
44. Food is stored as starch in cells labelled called

- A. I.
- B. II.
- C. III.
- D. IV.

45. Sodium reacts with chlorine to give sodium chloride. The balanced chemical equation for the above reaction is
- $2\text{Na} + \text{Cl}_2 \rightarrow 2\text{NaCl}$ .
  - $\text{Na} + \text{Cl} \rightarrow \text{NaCl}$ .
  - $\text{Na} + \text{Cl}_2 \rightarrow \text{NaCl}_2$ .
  - $\text{Na} + 2\text{Cl}_2 \rightarrow 4\text{NaCl}_2$ .
46. Muscles are attached to bones by
- arteries.
  - ligaments.
  - tendons.
  - veins.
47. The cutting of food particles is the primary function of the group of teeth called the
- canines.
  - incisors.
  - premolars.
  - molars.
48. The two bones in the lower leg of humans are called
- ulna and radius.
  - fibula and tibia.
  - femur and humerus.
  - clavicle and cranium.
49. Which gas is capable of causing a glowing light bulb to burst into flame?
- Carbon dioxide
  - Nitrogen
  - Neon
  - Oxygen
50. Which gas in the air is found in the greatest amount?
- Nitrogen
  - Oxygen
  - Carbon dioxide
  - Helium

51. On the periodic table, elements are placed in groups based on similarity in their
- colors.
  - chemical properties.
  - atomic numbers.
  - structures.
52. The type of respiration used by cells to obtain energy is called
- aerobic respiration.
  - anaerobic respiration.
  - voluntary respiration.
  - external respiration.
53. What does X represent in the chemical equation:  $\text{NaOH} + \text{HCl} \rightarrow \text{H}_2\text{O} + \text{X}$ ?
- HCl
  - NaCl
  - NaO
  - NaH

The diagram below illustrates an electric circuit. Use it to answer questions 54 to 56.



54. The component of the circuit labelled IV is the
- capacitor.
  - resistor.
  - voltmeter.
  - bulb.

55. The cell which is the voltage source, is labelled.
- A. I.
  - B. II.
  - C. III.
  - D. IV.
56. The part of the circuit labelled II is to
- A. increase the current in the circuit.
  - B. decrease the current in the circuit.
  - C. stop or allow the flow of current.
  - D. maintain stable current in the circuit.
57. In which layer of the earth is iron easily found?
- A. Crust
  - B. Core
  - C. Mantle
  - D. Hydrosphere
58. Which of the following forms of energy is mechanical?
- A. Heat energy
  - B. Light energy
  - C. Sound energy
  - D. Potential energy
59. The upper left chamber of the heart is called the
- A. left auricle.
  - B. right auricle.
  - C. left ventricle.
  - D. right ventricle.
60. The collar bone is scientifically called the
- A. humerus.
  - B. femur.
  - C. clavicle.
  - D. ulna.

*END OF OBJECTIVE TEST*