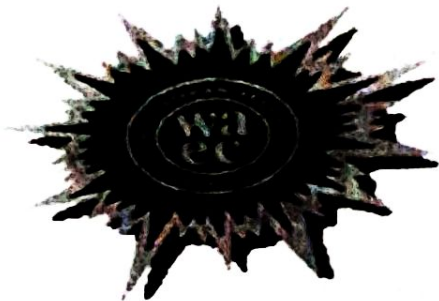


THE WEST AFRICAN EXAMINATIONS COUNCIL



**BASIC EDUCATION CERTIFICATE
EXAMINATION FOR SCHOOL AND PRIVATE
CANDIDATES – 2026**

SCIENCE 2

FINAL MARKING SCHEME

THE WEST AFRICAN EXAMINATIONS COUNCIL
BASIC EDUCATION CERTIFICATE EXAMINATION FOR SCHOOL CANDIDATES,
2026

FINAL MARKING SCHEME
SCIENCE

Section A
[40 marks]

Rubrics: Answer all the questions in this section

Question 1

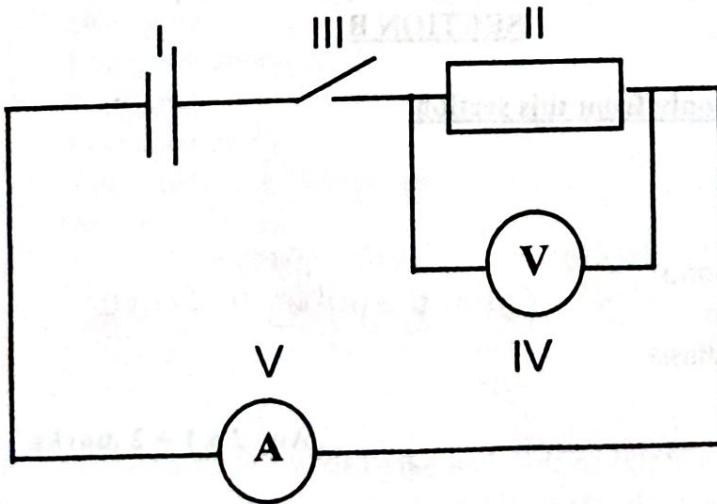
- (a) (i) A - Forage/grass/leaves/legumes/herbage/fodder/silage / *Roughage*
Any 1x1=1 mark
- B - Forage/grass/legumes/ herbage/roots tubers/ stem
tubers/hay/silage/pellet / *vegetables*
Any 1x1=1 mark
- C - (Grower) mash/ waterleaf/ cereal/ grains/ concentrate/ poultry
feed etc
Any 1x1=1 mark
- 3 marks**
- (ii) A - Proteins/Vitamins/Carbohydrates/Minerals
Correct Spelling to Score Any 1x1=1 mark
- B - Proteins/ Vitamins/ Carbohydrates/Minerals
Correct Spelling to Score Any 1x1=1 mark
- C - Proteins/ Carbohydrates/ Vitamins/ Minerals
Correct Spelling to Score Any 1x1=1 mark
- 3 marks**
- (iii) Functions of each ingredient
- Proteins - For growth/ repair of worn-out tissues
- Vitamins - For healthy growth/ builds immune system
- Carbohydrates - For energy/ heat
- Minerals - Promotes metabolic activities
- Any 3 × 1 = 3 marks**
- (iv) A/ Cow (1)

- (b) (i) I - Larynx/ Voice box (1) Correct spelling to score
 II - Trachea/Windpipe (1) Correct spelling to score
 III - Bronchus (1) Correct spelling to score
 IV - Lung (1) Correct spelling to score
 V - Diaphragm (1) Correct spelling to score
- (ii) II - Passage way for inhaled/ exhaled air (1)
 III - Traps dust particles in inhaled air/ passage way for inhaled/exhaled air (1)
 V - helps in breathing movement/ helps in inhalation and exhalation. (1)

- (iii) (α) Oxygen (1) *correct spelling to score*
 (β) Carbon dioxide / Carbon(IV) oxide (1) *correct spelling to score*

- (c) (i) II - Resistor (1)
 III - Switch / Key (1) *correct spelling to score*
 IV - Voltmeter (1)

- (ii) Diagram = (D) 1 mark All components connected
 Correct arrangement in series (I and III) = 1 mark (CS)
 Correct arrangement in parallel (II and IV) = 1 mark (CP)
 Circuit Diagram



(iii) $V = IR$ $\frac{V}{I} = R$ (1)

$\frac{15}{5} = R$ (1)

$R = 3\Omega$ (1)
(Correct SI unit = 1 mark)

-1 for no unit

4 marks

- (d) (i) (α) C (NaCl) (1)
(β) E (NaOH) (1)

- (ii) (α) A / HCl (1)
(β) C / NaCl (1)
(γ) D / NH₃ (1)

- (iii) 1-3 (2)

- (iv) A (HCl) (1) OR B (CH₃COOH) (1) AND E (NaOH) (1)

- (v) Green (1)

QUESTION 1 TOTAL = [40 MARKS]

SECTION B

Answer three (3) questions only from this section

Question 2

- (a) (i) - Ringworm
- Footrot
- Candidiasis
- etc

Correct spelling to score

Any 2 x 1 = 2 marks

- (ii) - Kwashiorkor
- Rickets
- Anaemia
- etc

Any 2x1 = 2 marks

Correct spelling to score

- (iii) - Cancer
- Diabetes
- Cardiovascular diseases
- etc

Correct spelling to score

Any 2x1 = 2 marks

(b) (i) Homogeneous mixture is a mixture in which the components (1) are evenly spread (1)
Any 2x1 = 2 marks

(ii) Heterogeneous mixture is a mixture in which the components (1) are not evenly spread (1)

Any 2x1 = 2 marks

(c) (i) A smooth surface offers; less opposition/friction to motion (1) and a rough surface has projections (1) which can oppose motion(1).

Any 3x1 = 3 marks

- (ii) - Force – newton (1)
- Work – joule (1)

(d) (i) Balanced ration is feed that contains all nutrients (1) in their right proportion (1) for the purpose for which the animal is kept.

Any 2x1 = 2 marks

- (ii) - Slow growth
- Low production
- Weakness
- High mortality
- Susceptibility to diseases etc
- *Weak shells*

Any 3x1=3 marks

QUESTION 2 TOTAL = [20 MARKS]

Question 3

- (a) (i) (α) (When cells are doubled), the bulb will be brighter (1)
- (β) (When number of bulbs is doubled), the brightness will reduce (1)

(ii) Explanation of observations

- (α) More energy/current will be supplied to the bulb to increase brightness (1)
- (β) Energy from the cell will be shared by the bulbs (1)

Sandy soil contains less water (1) leads to low vegetable production (1) loamy soil contains moderate water and minerals (1) promotes healthy growth (1) clayey soil retains too much water (1) leading to poor production. (1)

(ii) Nearness to source of water

- Accessibility to safe water (1)
- Availability of enough water (1)

(iii) Nearness to market

- Availability of market (demand) (1)
- Accessibility (1)

(c) (i) Mutualism is a relationship between two organisms of different species (1) where both species benefit (1).

(ii) Commensalism is a relationship between two different organisms/ species where one benefits (1) but the other is not harmed (1).

(d) (i) (α) Element is a (pure) substance containing one kind of atoms only while a compound is a (pure) substance containing two or more different kinds of atoms chemically combined (2/0)

(β) A molecule is a chemical substance formed by covalent combination of two or more non-metals while an ion is a substance formed by the loss or gain of electrons by an atom. (2/0)

- (ii) (α) AlF_3 (1)
 (β) NH_3 (1)

QUESTION 3 TOTAL = [20 MARKS]

Question 4

(a) (i) Micro-nutrients
Boron, Manganese, Zinc, Iron, Copper etc. **Any 2x1= 2 marks**

Correct spelling to score

(ii) Macro-nutrients
Nitrogen, Phosphorus, Potassium, Sulphur, Calcium, Magnesium

Correct spelling to score

Any 2x1= 2 marks

- (b) (i) Blood vessels / heart / blood plasma / red blood cell/blood **Any 1x1 = 1 mark**
- (ii) White blood cells / platelets/blood **(1)**
- (iii) Blood vessels / blood plasma/blood **(1)** *Correct spelling to score*
- (c) - Can result in birth defects as they find their way into the body
 - Exposure to pollutants/toxic substances can cause blood infections
 - Drinking contaminated water can result in bacterial diseases
 - Emissions from poorly disposed waste can cause skin irritations
Any 3x1 = 3 marks
- (d) (i) Solute particles of colloid are very small/ cannot be seen and can pass through filter pores/ particles do not settle, while solute particles of suspension are large/ can be seen and cannot pass through filter pores/ particles settle (overtime). **(2/0)**
- (ii) (α) suspension **(1)**
 (β) colloid **(1)**
 (γ) solution **(1)**
- (e) (i) useful work done/ energy obtained **(1)** by the machine **(1)** OR work done by the machine **(1)** on the load **(1)** **2 marks**
- (ii) The greater the work output **(1)**, the higher the efficiency of the machine **(1)**.
 The lesser the work output the lower the efficiency **(1)** of the machine. **3 marks**

QUESTION 4 TOTAL = [20 MARKS]

Question 5

- (a) (i) (α) $n(\text{proton}) = \text{atomic number} = 8$ **(1)**
 (β) $n(\text{electrons}) = n(\text{protons}) = 8$ **(1)**
 (γ) $n(\text{neutron}) = \text{mass number} - \text{atomic number} = 17 - 8 = 9$ **(1)**
- (ii) (α) Group VI/ 16/ 6 **(1)**
 (β) Period 2 **(1)**
- (b) (i) - Particles in the metal nearest the heat source acquire heat energy **(1)**
 - Increase their vibrations and force other particles close to them to vibrate faster **(1)**
 - Heat is transferred along the conductor **(1)**

- (ii) - Radiation (1) *Correct spelling to score*
- Convection (1)

(c) (i) Streams/ lakes/ rivers/ dams/ well/ ponds, etc

Any 2x1 = 2 marks
Correct spelling to score

- (ii) - Bush burning
- Deforestation
- (Illegal) mining / galamsey
- Dumping of waste into water bodies etc

Any 2x1 = 2 marks

- (iii) - Afforestation
- Use of organic materials for composting
- Cover cropping
- Stop mining in water bodies *Education on the*

Any 2x1 = 2 marks

- (d) (i) - Vaccination / Immunization
- Washing hands thoroughly before eating / touching mouth/nose
- Treatment of infections with antibiotics
- Avoiding sharing personal items like towels, lipsticks etc

Any 3x1 = 3 marks

- (ii) - Tuberculosis
- Typhoid
- Cholera
- Syphilis
- Tetanus
- etc

Correct spelling to score

Any 1x1 = 1 mark

QUESTION 5 TOTAL = [20 MARKS]

(Signature) C E 15/5/26
~~Chastity~~ ZL 15/5/26
 ZL 15/5/26
~~Tabulam~~ ZL 15/05/26