

NAME OF CANDIDATE: _____ SCHOOL: _____

CENTRAL WEST EDUCATION DIVISION



2025 MALAWI SCHOOL CERTIFICATE OF EDUCATION

MOCK EXAMINATIONS

AGRICULTURE

PAPER II

(40 Marks)

Subject Number: M012/II

Marking key

Section A (20 marks)

1. **Materials:** pH meter, soil sample, distilled water (1 mark for any 2)

Procedure: - Put 1 cm³ of soil sample into a test tube.

- Add 1 cm³ of barium sulphate powder.
- Fill the test tube with distilled water.
- Close the test tube with a cork stopper and shake the contents vigorously.
- Let the mixture settle down.
- Dip an electrode of a pH meter into the soil solution.
- Record the reading on the screen.

(7 marks for procedure)

Expected results:

- pH results of less than 7 mean that the soil is acidic while pH values of greater than 7 mean that the soil is alkaline. a pH reading of 7 mean that the soil is neutral. **(2 marks)**

2. a. - Drawing the axes. 1 mark
- Bars with equal width. 1 mark
 - Correct length of bars. 1 mark
 - Correct scale. 2 marks
- b. - As the years were increasing, the maize yield kept on decreasing. 2 marks
- c. - soil exhaustion hence a reduction in yield.
- Environmental factors
 - Biological factors
 - Management factors 2 marks
- d. Mono-cropping/continuous cropping. 1 mark

Section B (20 marks)

3. a. – Flushing. (1 mark)
- b. - the feed provides proteins /for the health growth of the foetus.
- it provides enough energy so that the cow does not experience problems during giving birth
 - it provides enough nutrients to the cows so as to enhance development of udders and production of milk (4 marks for any 2)
- c. - Monoculture (1 mark)
- d. - farm mechanisation is easy since a machine can be adjusted to suit one crop.
- it is easy to weed/apply herbicides/apply pesticides since only the needs of one crop are considered.
 - it prevents competition for production resources since there is only one crop. (4 marks for any 2)

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4. a.

Fertiliser sample Q	Fertiliser sample P
Has not dissolved completely/dissolves slowly	Has dissolved completely/dissolves quickly

(2 marks)

b. (i).1. - Fertiliser **P**

(1 mark)

2. - fertiliser **P** dissolves fast showing that loss of nutrients can be high⁽¹⁾ and therefore can be applied in soil sample **L** (clay soil) to avoid loss of nutrients⁽¹⁾

(2 marks)

(ii).1. - Fertiliser **Q**

(1 mark)

2. - fertiliser **Q** dissolves slowly which shows that leaching will be low⁽¹⁾ and therefore should be used in soil sample **M** (sandy soil) so that some plant nutrients are retained for plant use⁽¹⁾

(2 marks)

c. - fertiliser **P** dissolves quickly⁽¹⁾ and provides a balanced mix of the three primary nutrients plants need for healthy growth and development.⁽¹⁾

(2 marks)

END OF PROVISIONAL MARKING SCHEME