

AGRICULTURAL SCIENCE

EXAMINATION SCHEME

There will be three papers: Papers 1, 2 and 3 all of which must be taken. Papers 1 and 2 will be a composite paper to be taken at one sitting.

PAPER 1: Will consist of fifty multiple choice questions to be answered within 50 minutes for 50 marks.

PAPER 2: Will consist of six essay questions with each drawn from at least two themes in the syllabus. Candidates will be required to answer five of the questions within 2 hours 10 minutes for 90 marks.

PAPER 3: Will be a practical paper for school candidates and alternative to practical paper for private candidates. It will consist of four questions, all of which should be answered within 1½ hours for 60 marks.

SAMPLE QUESTIONS

Paper 1 (Objective)

1. The device which helps to regulate heat in an incubator is the
 - A. *thermometer.*
 - B. *hygrometer.*
 - C. *insulator.*
 - D. *thermostat.*
2. Which of the following statements about crop production is **not** correct?
 - A. Onions are commonly grown in the rainforest zones.
 - B. Yam, cocoyam and cassava are grown in both the rainforest and the savanna regions.
 - C. Some foreign vegetable crops are grown in and around urban centres.
 - D. Carrots are commonly grown in the savanna and moist vegetation belts.
3. Which of the following is a disadvantage of surface irrigation?
 - A. The quantity of water lost is high.
 - B. Water is evenly distributed over the farmland
 - C. It is very cheap to operate.
 - D. The system is suitable for paddy rice cultivation.

4. Fine *soil tilth* is produced by the use of
- harrow.
 - plough.
 - ridger.
 - mower.
5. The problems of farm mechanization in West Africa include the following **except**
- reduction of farm drudgery.
 - small farm holdings.
 - poverty of farmers.
 - poor topography.

Paper 2
(Essay)

- (1) (a) Explain **each** of the following terms as used in animal production:
- dipping*;
 - dry cow*;
 - culling*;
 - quarantine*. [8 marks]
- (b) Describe the life cycle of roundworm (*Ascaris lumbricoides*). [4 marks]
- (c) Explain the term *farm mechanization*. [2 marks]
- (d) Name **four** tractor coupled implements [4 marks]
- (2) (a) State **six** limitations of farm mechanization in West Africa. [6 marks]
- (b) Suggest **six** ways of encouraging farm mechanization in West Africa. [6 marks]
- (c) List **four** methods of identification in cattle management. [4 marks]
- (d) What is *debeaking* in poultry management? [2 marks]
- (3) (a) Mention **two** processes that release carbon dioxide into the atmosphere [2 marks]
- (b) Name **four** storage pests of crops [4 marks]
- (c) State **two** functions of Potassium in crops. [2 marks]
- (d) List **three** ways by which **each** of the following biotic factors affects agricultural production:
- parasites;
 - soil organisms. [6 marks]
- (e) State **four** advantages of zero tillage. [4 marks]

PAPER 3
(PRACTICAL)

(Instruction)

Specimens

A – Granite

B – Limestone

C – Marble

- 1.(a) Identify specimens **A**, **B** and **C**. [3 marks]
(b) Classify specimens **A**, **B** and **C** according to their mode of formation. [3 marks]
(c) State **three** characteristics of **each** of specimens **A**, **B** and **C**. [9 marks]
2. (a) Differentiate between specimens **A** and **B** [6 marks]
(b) State **four** ways in which specimen **A** is important [4 marks]
(c) Describe the formation of specimen **A** [5 marks]