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

A. harrow.
B. plough.
C. ridger.
D. mower.

5. The problems of farm mechanization in West Africa include the following *except*

A. reduction of farm drudgery.
B. small farm holdings.
C. poverty of farmers.
D. poor topography.

**Paper 2**
**(Essay)**

(1) (a) Explain each of the following terms as used in animal production:

(i) *dipping*;
(ii) *dry cow*;
(iii) *culling*;
(iv) *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. [4 marks]
(d) List three ways by which each of the following biotic factors affects agricultural production:

(i) parasites; [6 marks]
(ii) soil organisms.
(e) State four advantages of zero tillage. [4 marks]
(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]