



SIR ARTHUR LEWIS COMMUNITY COLLEGE
DIVISION OF AGRICULTURE

CERTIFICATE IN GENERAL AGRICULTURE
2012/2013 ACADEMIC YEAR
END OF SEMESTER SECOND EXAMS

#F29

- Instructions:** 1. This paper consists of five questions **ANSWER ANY FOUR (4) QUESTIONS**.
2. Read carefully and begin each new question on a new page.

1. The picture below (figure 1) represents a poultry production shelter for a particular farmer in your district.



Descriptions	
Floor	mud
Wall	plywood
Density of birds	overstock
Local rainfall	high
Roof	Metal with limited overhang

Figure 1.

- a) Identify **THREE** shortcomings of the building above as it relates to poultry and discuss their implications for successful commercial egg production. [6]
- b) Supposing you are to design a structure for the farmer,
- Provide him with a sketch of the floor plan of the proposed poultry unit,
 - State the materials to be used for each major component of the structure such as the foundation, floor, walls and roof.
 - State the rationale for using each material. [10]
- c) Discuss **TWO** factors to be considered for selecting a site for a livestock production shelter on a farm. [4]

Total 20 marks

2. "Agricultural mechanisation promises to play a pivotal role in improving productivity for ACP countries".

- a) Do you agree with the statement above? Give **THREE** reasons. [6]
- b) Discuss **THREE** factors that hinder the development of Agricultural mechanisation in St. Lucia. [6]
- c) Compare the use of string trimmers in weed control with traditional methods of weed control with cutlasses in terms of (i) **efficiency**, (ii) **cost effectiveness**, (iii) **pollution**, and (iv) **drudgery**. [8]

Total 20 marks

3. In recent times the use of small machines on farms in St. Lucia has increased tremendously.

- a) State **THREE** advantages of using small machines in the practice of agriculture in small countries like St. Lucia. [3]
- b) List **FOUR (4)** parts of a mist blower. [2]
- c) i. Define the term "preventative maintenance." [1]
ii. Explain **TWO** benefits of preventative maintenance. [4]
iii. List **TWO** routine maintenance procedures that should be carried frequently carry out on mist blowers (step by step procedure for each). [8]
- d) Explain how the choke helps in starting the engine of a mist blower. [2]

Total 20 marks

4. Knapsack sprayers are indispensable agricultural tools.
- Differentiate between "Hollow cone nozzle" and "even fan nozzle". [2]
 - Explain four steps to efficient knapsack use. [8]
 - Explain the principles of operation of a diaphragm knapsack sprayer. [4]
 - Explain how speed, nozzle capacity and pressure influence sprayer calibration. [6]

Total 20 marks

5. a) The table below compares drip and sprinkler irrigation. Copy and complete the table below with the correct information:

	Drip Irrigation	Sprinkler irrigation
Application efficiency		
Suitable soil condition		
Crop		
Spread of disease		

[8]

- List **THREE** ways in which may clogging occur in drip irrigation systems.
 - State one solution to each problem identified above. [10]
- List **TWO** components of a drip irrigation system. [2]

Total 20 marks