

GWANDA STATE UNIVERSITY



FACULTY OF LIFE SCIENCES

DEPARTMENT OF CROP SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE IN CROP SCIENCE

CROPPING SYSTEMS

LCS 2212

First Semester Final main Examination Paper

JANUARY 2021

This examination paper consists of 3 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: None

Examiner's Name: A. Banda

INSTRUCTIONS

1. Answer **all** questions in Section A
2. Answer **only two** questions in Section B

MARK ALLOCATION

QUESTION	MARKS
SECTION A	60
SECTION B	40
TOTAL ATTAINABLE MARKS	100

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SECTION A: ANSWER ALL QUESTIONS

Question 1

- a. Define intercropping and monocropping [4 marks]
- b. Describe comparatively the advantages of intercropping to monocropping [16 marks]

Question 2

- (i) Examine the role of supermarkets in supply chain management of fruits, vegetables and food items. How do they eliminate a number of intermediaries? [7 marks]
- (ii) How do subsidies affect the cropping pattern, crop diversity and economy of farmers? [7 marks]
- (iii) What is the significance of crop insurance, minimum support price and food processing for small and marginal farmers? [6 marks]

Question 3

- a. What are the major reasons for declining cotton and tobacco yield in the cropping system? [12marks]
- b. How will crop diversification helpful to stabilize the yield of the crops in the system? [4marks]
- c. Suggest other economic strategies to be put in place to revive the cotton and tobacco production [4 marks]

SECTION B ANSWER ANY TWO QUESTIONS

Question 4

Differentiate between the following

- (i) soil fertility and productivity [8 marks]
- (ii) relative and noxious weeds [3 marks]
- (iii) synergistic/ synergism and legume effect in crops [3 marks]
- (iv) maximum yield and maximum economic yield [6 marks]

Question 5

- a. What is allelopathy? Discuss role in major cropping systems of irrigation agriculture [10 marks]

- b. (i) How has the emphasis on certain crops brought about changes in cropping patterns in recent past? Elaborate the emphasis on small grain (millet and/ or sorghum) production and consumption [8marks]

Question 6

How far is integrated farming systems (IFS) helpful in sustaining agricultural production?

[20 marks]