



The Open University of Sri Lanka
 Faculty of Engineering Technology
 Department of Agricultural and Plantation Engineering

Study Programme: Bachelor of Industrial Studies Honours (Agriculture)

Name of the Examination: Final Examination

Course Code and Title : AGM5475 Agricultural Economics and Management

Academic Year : 2022/2023
 Date : 05.02.2024
 Time : 09.30 to 12.30hrs
 Duration : 3 hours

SECTION II: Answer any four (04) Questions.

You may spend two hours to answer this section.

1.

- i. Explain the concept of Gross National Product (GNP) (5 marks)
- ii. What is meant by the term Gross Domestic Product (GDP)? (5 marks)
- iii. Write down the formula to calculate the GDP and briefly explain its components (8 marks)
- iv. What are the advantages and shortcomings of using GDP as a macroeconomic indicator? (7 marks)

2. Choose two (2) agricultural policies from the following list and explain the contribution of each selected policy on promoting sustainable agriculture. (12.5 marks each)

- i. Cash grant vs input (ex: fertilizer) subsidy.
- ii. Price cap for input supply (ex: Machine rent)
- iii. Releasing low yield paddy land for cultivation of other crops (vegetables and banana)
- iv. Ban on inorganic fertilizer and food security

3. Suppose a farmer wants to cultivate one hectare of Cavendish banana and invests two million rupees to establish the plants in the field (land preparation + machinery + planting material + labor). The annual operation and maintenance costs from the second year onwards amount to **Rs 100,000**. The project will last for five years, and the expected yields from the second year are as follows:

Year 2	Year 3	Year 4	Year 5
15,000	18,000	20,000	20,000

If the selling price of banana is **Rs. 200/kg**;

- i. Develop the cost stream, benefit stream and net cash flow stream for the above project (5 marks)
 - ii. Calculate Benefit Cost ratio (BCR) and Net Present Value (NPV) assuming a 15% discount rate (10 marks)
 - iii. Describe how the IRR can be calculated (5 marks)
 - iv. If IRR is 20.5%, comment on the project worth based on these results (IRR, BCR, NPV) (5 marks)
4. Write short notes on **five (5)** of the following topics (5 marks each)
- i. Positive, normative, and perspective economics
 - ii. Fiscal policy and monetary policy
 - iii. Liquidity and solvency
 - iv. Maximum sustainable yield of renewable resource management
 - v. Structural unemployment and cyclical unemployment
 - vi. Causes and types of inflation
- 5.
- i. Differentiate between partial budgeting and complete budgeting of a farm. (7 marks)
 - ii. Discuss the importance of record keeping in a farm enterprise. (8 marks)
 - iii. *'The effectiveness of an organization depends on the behavior and performance of human resources.'* Comment on the above statement (10 marks)
6. Mother Dairy Ltd., which was founded in 2018, is presently operating its business successfully in Bandarawela. The subsequent balances, all denominated in LKR, have been extracted from the books of accounts as of December 31, 2023.

Entries	Value (LKR)
Cash at hand and bank	1000,000
The remaining loan balance at ABC Bank as at 31.12.2023	3,300,000
Land	2,000,000

Value of the buildings	2,200,000
Account payable	200,000
Stocks	500,000
Farm Machinery	1,500,000
Dairy cows	1,800,000
Furniture and equipment	200,000
Account receivable	800,000

Note: The industry standards of the current ratio and Debt/Equity ratio are 2 and 2.5 respectively.

- i. Prepare the balance sheet (Net worth statement) of Mother Dairy Ltd as of 31st December 2023 and calculate the owners' equity. (10 marks)
- ii. Calculate current ratio (5 marks)
- iii. Compute Debt to equity ratio (5 marks)
- iv. Comment on the farm performance based on the above values. (5 marks)