



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

Study Programme : Bachelor of Industrial Studies Honours in Agriculture
Name of the Examination : Final Examination
Course Code and Title : AGM3354 Principles of Economics
Academic Year : 2024/25
Duration : 3 hours
Date : January 25, 2026
Time : 13.30-16.30hrs

Index No. -----

General Instructions

1. This is a Closed Book Test.
2. This question paper consists of **six (6)** questions in 6 pages.
3. **Answer five (5) questions including question No 01.**
4. **Question No. 1 consists of 10 structured questions. The answers should be written in the space provided and attach to the answer booklet containing the answers to the other questions.**
5. Read the questions carefully before answering.
6. Answer for each question should commence from a new page in the answer book.
7. Do not use red colour pens.

In case of doubt, please consult the supervisor or an invigilator in the examination hall.

Question No 1.**Answer all 10 structured questions in the space provided. (2x10= 20 marks)**

1. Define economics and briefly explain the concept of **scarcity**.

2. What are the **three (3)** basic questions every society must answer about producing goods and services?

a. -----

b. -----

c. -----

3. Identify **three (3)** major **agricultural export crops** of Sri Lanka.

a. -----

b. -----

c. -----

4. A farmer employs machines, skilled labour, raw materials, and managerial expertise to produce vegetables. Identify the resources involved and indicate the corresponding method of payment in the table below.

Resource	Payment

5. What would happen to the demand for luxury good if the income of a consumer is increased?

6. Briefly discuss the concept of indifference curves used to represent consumer preferences.

7. How does the concept of opportunity cost apply to **time** as a scarce resource?

8. A farmer uses his own land and capital to produce rice instead of renting them out. Identify the opportunity costs involved.

9. The price of a commodity increases from Rs. 20 to Rs. 25. As a result, quantity demanded decreases from 100 units to 80 units. **a. Calculate the price elasticity of demand. b. State whether demand is elastic, inelastic, or unit elastic.**

a. -----

b. -----

10. What The supply function of a commodity is given as: $Q_s = 40 + 5P$. **a. Find the price elasticity of supply at $P = \text{Rs. } 8$. b. State whether demand is elastic, inelastic, or unit elastic.**

a. -----

b. -----

Answer any four (04) Questions from questions 2 to 6.

Question No. 2:

Consider a farmer who grows both potato and carrots while sharing land, machinery, and labor. The farmer fully utilizes all available resources, and the feasible production combinations are as follows.

Potato (tons)	Carrot (tons)
0	50
5	49
10	47
15	44
20	40
25	35
30	28
35	18
40	0

- a. Draw the production possibility curve of the farm (**4 marks**).
- b. What do you understand by the term “trade off”? What is the trade-off faced by the farmer? (**4 marks**)
- c. Suppose the farmer produces 20tons of potato and 40tons of carrots.
 - i. What is the opportunity cost of producing **five (5)** additional tons of potato. (**4 marks**)
 - ii. What is the opportunity cost of producing **four (4)** tons additional carrots? (**4 marks**)
- d. Suppose that the research officers at an agricultural research station developed a new variety of carrot which produces higher yield. Graphically show the change in PPF curve with respect to the change in technology. (**4 marks**)

Question No. 3:

The market for rice is described by the following demand and supply functions:

$$Q_d = 2400 - 2P$$

$$Q_s = 100 + 8P$$

where Q represents the quantity of rice (in kilograms) and P represents the price per kilogram (in rupees).

- a. Determine the equilibrium price and equilibrium quantity of rice. Illustrate your answer using a properly labelled demand and supply diagram. (**4 marks**)

- b. Suppose the government imposes a maximum price of Rs. 200 per kilogram. Calculate the quantity demanded and quantity supplied at this price and illustrate the outcome on the same diagram. **(8 marks)**
- c. Based on your results in **part (b)**, identify whether the price control results in a **shortage or a surplus**, and briefly explain your answer. **(4 marks)**
- d. Explain how price controls are identified in economic theory and discuss the objectives of governments in implementing such policies. **(4 marks)**

Question No. 4:

- a. Define the term "Utility" **(2 marks)**
- b. Define the term "Equi-marginal" utility. **(3 marks)**
- Consider the following table which shows a consumer's Total Utility derived from the consumption of buns and plain tea.

Units	Total Utility (Utils)	
	Bun	Plain Tea
1	120	120
2	220	225
3	300	315
4	360	390
5	400	450

- c. Calculate the Marginal Utility for each good for each level of consumption. **(5 marks)**
- d. The price of a bun is Rs. 40 and the price of a cup of plain tea is Rs. 30.00. If he spends maximum of Rs. 150 per day for bun and tea to maximize his utility, find the quantity of each good he consumes. **(10 marks)**

Question No. 5:

Write short notes on the following. (5 marks for each)

- Economic impacts of "Dithwa" cyclone
- Elasticity of demand and its relationship with revenue
- Scarcity of resources
- Structural unemployment

Question No. 6:

- Define Gross Domestic Product (GDP)? **(3 marks)**
- What do you understand by Nominal GDP and Real GDP? **(3 marks)**
- Distinguish the difference between GDP and GNP (Gross National Product). **(3 marks)**
- List the main **components of GDP** using the expenditure approach. **(4 marks)**
- Briefly discuss the limitations of using GDP as a measure of a country's economic growth. **(7 marks)**