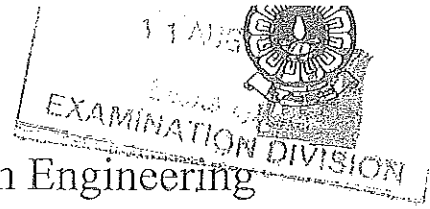


The Open University of Sri Lanka
Faculty of Engineering Technology
Department of Agricultural & Plantation Engineering



11/08/2020

15:30 - 16:30

Study Programme : Bachelor of Industrial Studies Honours in Agriculture

Name of the Examination : Final Examination

Course Code and Title : AGM3354 Principles of Economics

SECTION II: Answer any four (04) Questions

1. Suppose a potato farmer in Nuwara Eliya produces both Carrot and Potato. The farmer completely utilizes its materials and labour in producing both. A few feasible production combinations are given below.

Carrot (tons per ha per season)	Potato (tons per ha per season)
0	30
5	29
10	28
15	27
20	25
25	22
30	18
35	13
38	8
39	5
40	0

- a. Draw the production possibility curve of the farmer (5 marks).
- b. What do you understand by the term "trade off"? What is the trade-off faced by the farmer? (5 marks)
- c. Suppose the farmer produces 20 tons of Carrot and 25 tons of Potato.
- What is the opportunity cost of producing five (5) additional tons of carrot? (5 marks)
 - What is the opportunity cost of producing two (2) additional tons of potato? (5 marks)
- d. Suppose that the Department of Agriculture releases a new variety of Potato which yields more using the same amount of labour and materials. Graphically show the change in PPF curve with respect to the change in technology. (5 marks)
2. The elected officials in the Western Provincial council are concerned about the high rents being charged to university students. The town council is expecting to impose a rent ceiling of Rs. 2000 per month per student on rooms in the city. The demand and supply curves for rooms have been estimated as:
 $QD = 12,000 - 4P$ $QS = 200 + 2P$, where P = monthly rent, and Q = number of rooms available for rent.
- For purposes of this analysis, the rooms can be treated as identical.
- Calculate the equilibrium price and quantity that would prevail without the price ceiling. (5 marks)
 - Calculate producer and consumer surplus at this equilibrium. (5 marks)
 - Sketch a diagram showing both consumer surplus and producer surplus. (5 marks)
 - What quantity will eventually be available if the rent ceiling is imposed? (5 marks)
 - Graphically illustrate the new producer surplus and consumer surplus with price ceiling. (5 marks)

- 3.
- Describe why a government need to impose an efficient tax system. (5 marks)
 - What do you understand by “dead weight loss”? (5 marks)
 - Using graphical illustrations describe how tax could make an inefficient market. (5 marks)
 - “It doesn't matter to whom the tax is levied on, the burden is shared by both producers and consumers”. Elaborate the statement using graphical illustrations. (5 marks)
 - Using graphical illustrations describe how the burden of taxes is shared between producer and consumer of a good. (5 marks)
- 4.
- What do you understand by the term “Utility” (5 marks)
 - Differentiate between cardinal utility and ordinal utility. (5 marks)
 - What is ‘equi-marginal utility’? (5 marks)
 - Prices of goods A, B, and C are Rs. 1, 2, and 3 per unit respectively and total utility of the goods are given in the table below. Calculate the equilibrium quantities of each good. (10 marks)

Quantity	Total Utility		
	Good A	Good B	Good C
1	30	13	50
2	55	25	100
3	75	36	140
4	90	56	170
5	100	60	190

5. Write short notes on any five (05) of the following topics. (5 marks each)
- Sustainable agriculture
 - Fertilizer subsidy
 - Investments on organic fertilizer
 - Economic impacts of COVID-19 pandemic
 - Disadvantages of GDP as an indicator of growth of a country
 - Circular Flow Diagram
 - Inflation

- 6.
- Describe the scope of macroeconomics? How does it differ from microeconomics? (4 marks)
 - Discuss **three (03)** key macroeconomic issues related to Agriculture Sector in Sri Lanka. (5 marks)
 - Downloaded GDP data at constant and current prices from 2010 to 2018 from the Department of Censuses and Statistics of Sri Lanka are given below.

	Constant prices (MnRs.)	Current prices (MnRs.)
2010	6,413,668	6,413,668
2011	6,952,720	7,219,106
2012	7,588,517	8,732,463
2013	7,846,202	9,592,125
2014	8,235,429	10,361,151
2015	8,647,833	10,950,621
2016	9,035,830	11,996,083
2017	9,359,147	13,328,103
2018	9,668,600	14,366,103

- What was the growth rate of nominal GDP between 2010 and 2018? (4 marks)
- Calculate the GDP deflator at each year between 2010 and 2018? (4 marks)
- What was the real GDP in 2010 measured in 2018 prices? (4 marks)
- What was the real GDP in 2018 measured in 2010 prices? (4 marks)

