Library copy

University of Ruhuna- Faculty of Technology

Bachelor of Engineering Technology/ Bachelor of Information and Communication Technology/ Bachelor of BioSystems Technology Honours Degree
Level 2 (Semester I) Examination, June/July 2023
Academic year 2021/2022

Course Unit: TCS 2112 Business Economics (Written) **Duration: 2 hours**

- The paper contains Five (05) questions.
- **Answer only Four (04) questions.**
- Calculators are **allowed** for this examination.
- Answers should be written in English, in the booklet provided.
- Always start a new question on a new page.

Question 01

i) Describe what is meant by "business economics". (5 marks)

ii) Distinguish between Micro Economics and Macro Economics. (5 marks)

iii) Use the Production Possibility Curve/Frontier to illustrate the following concepts. (5 marks)

a) Full use of resources.

b) Inefficiency in production.

c) More unemployed resources are being utilized.

d) Unattainable desires.

e) Economic growth.

iv) What is meant by the "Law of Demand" and list **four (04)** determinants of demand? (5 marks)

v) State the differences between "change in quantity supplied" and "change in supply". (5 marks)

(25 marks)

Question 02

i) Suppose the demand function (Qd) and supply function (Qs) for a product is given as follows

$$Qd = 500 - 2P$$

$$Qs = -100 + 2P$$

a) Calculate the equilibrium price (Ep) and the equilibrium quantity (Eq). (2 marks)

b) Draw the demand and supply curves on a diagram and indicate the market equilibrium. (4 marks)

c) Calculate the consumer and producer surplus when the market is in equilibrium. (2 marks)

ii) Assume the government establishes Rs. 100 as the "control price". Calculate the followings after imposing the control price on the market. **(you may use the previous graph).**

a) Market demand and Market supply (2 marks)

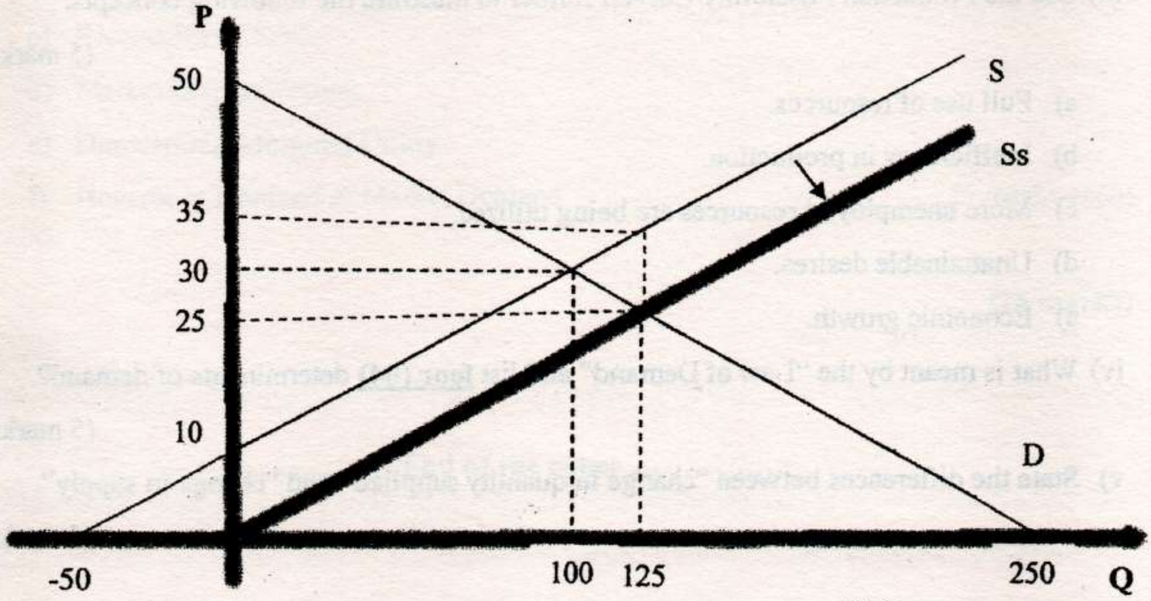
b) Excess demand (1 mark)

c) Maximum black market price (2 marks)

d) Consumer surplus and Producer surplus after the control price policy (2 marks)

e) Dead-weight loss to society (1 mark)

iii) The graph below depicts the demand and supply for a specific commodity, where the government has decided to provide a subsidy of Rs. 10 per unit to the producer.



a) Calculate the consumer and producer surplus before and after the unit subsidy.

(6 marks)

b) Calculate the deadweight loss to society. (2 marks)

c) Calculate the government subsidy expenses. (1 mark)

(25 marks)

Question 03

i) Complete the following chart calculating values for TFC, TVC, TC, MC, AFC, AVC, and ATC.

Quantity	Total fixed cost (TFC)	Total variable cost (TVC)	Total cost (TC)	Marginal cost (MC)	Average fixed cost (AFC)	Average variable cost (AVC)	Average total cost (ATC)
0			3000				
1		150					
2				150			
3		540					
4						200	
5							792

(9 marks)

ii) Briefly explain the difference between explicit and implicit costs with examples. (4 marks)

iii) Briefly explain the difference between economic profit and accounting profit. (4 marks)

iv) Describe the relationship between average cost (AC) and Plant size. (4 marks)

v) "The sunk cost is not recoverable." Discuss the statement by giving examples. (4 marks)

(25 marks)

Question 04

i) Define the term **"Utility."** (2 marks)

ii) Explain briefly the terms "Cardinal Approach" and "Ordinal Approach" as they are used in utility theory. (6 marks)

iii) Sunil has Rs. 40 to spend on either product **"A"** or product **"B"** and wants to maximize his utility. Suppose that the price of both products is Rs. 5. The following table shows the total utility associated with the consumption of product A and product B in various amounts.

Quantity	Total Utility (Product A)	Total Utility (Product B)
1	140	180
2	260	340
3	360	460
4	440	520
5	500	540

a) Calculate the marginal utilities for both Product A and Product B. (5 marks)

b) Calculate the marginal utility per rupee spent for each quantity. (5 marks)

c) Determine the number of units of Product A and Product B that would maximize Sunil's utility. (2 marks)

iv) Explain briefly the significance of macroeconomics. (5 marks)

(25 marks)

Question 05

Briefly explain **any five (05)** of the following concepts.

a) Inflation

b) Buffer Stock

c) Economies of Scale

d) Market Disequilibrium

e) Diminishing Marginal Utility

f) Household Demand & Market Demand (5 marks each)

(25 marks)

.... End of the paper ....