



FIJI NATIONAL UNIVERSITY

COLLEGE OF AGRICULTURE FISHERIES AND FORESTRY

SCHOOL OF AGRICULTURAL SCIENCES

**DEPARTMENT OF AGRICULTURAL ECONOMICS AND
EXTENSION EDUCATION**

TRIMESTER 3 FINAL EXAMINATION - 2016

AEC 503: PRINCIPLES OF AGRICULTURAL ECONOMICS

BACHELOR OF SCIENCE IN AGRICULTURE YEAR 1

Time Allowed: 3 hours plus (10 minutes reading time) Total Marks: 100

INSTRUCTIONS:

1. This paper consists of seven pages. Please check to see that all your paper is complete.
2. Answer all the Objective Type Questions and Descriptive Type Question in the Answer Booklet only.
3. No written or printed material and mobile phones are allowed in the examination hall.
4. Marks allocated for each question appears at the side of each question so allocate your time accordingly.
5. All questions to be answered ONLY in the Answer Booklet provided.

SECTION	PARTICULARS	MARKS
SECTION A	OBJECTIVE QUESTIONS Part I Multiple Choice Questions. Part II True and False. Part III Definitions	(30 Marks) (10 Marks) (10 Marks) (10 Marks))
SECTION B	Short Answer Questions Attempt ALL.	(20 Marks)
SECTION C	Graphs and calculations Attempt ALL	(50 Marks)
TOTAL		100 Marks

SECTION A OBJECTIVE QUESTIONS

I. MULTIPLE CHOICE (10 Marks)

1. Suppose that a business incurred implicit costs of \$200,000 and explicit costs of \$1 million in a specific year. If the firm sold 4,000 units of its output at \$300 per unit, its accounting profits were:
 - A. \$100,000 and its economic profits were zero.
 - B. \$200,000 and its economic profits were zero.
 - C. \$100,000 and its economic profits were \$100,000.
 - D. Zero and its economic loss was \$200,000.

2. The law of diminishing returns indicates that:
 - A. As extra units of a variable resource are added to a fixed resource, marginal product will decline beyond some point.
 - B. Because of economies and diseconomies of scale a competitive firm's long-run average total cost curve will be U-shaped.
 - C. The demand for goods produced by purely competitive industries is down sloping.
 - D. Beyond some point the extra utility derived from additional units of a product will yield the consumer smaller and smaller extra amounts of satisfaction.

3. Comparative Static Analysis can be defined as:
 - A. A new equilibrium price results from a shift or movement of demand or supply or both.
 - B. Determines amount of supply and quantity brought into the market.
 - C. The use of supply and demand diagrams to illustrate movements in market prices and quantities.
 - D. A state of rest or balance due to the equal action of opposing forces.

4. Economic costs is:
 - A. Terms of actual dollar outlays and these are known as explicit costs.
 - B. Terms of opportunity costs these are known as implicit costs it also includes explicit costs.
 - C. Costs that do not change with production.
 - D. Cost that has already been incurred and cannot be recovered.

5. One of the characteristics of a perfect competition type of market structure can be:
 - A. Organization of sellers that agree to set prices, limit output.
 - B. Government owns and runs or permits only one producer.
 - C. Market structure with only a few sellers offering similar product.
 - D. No one buyer or seller has power to control price in the market.

6. Marginal utility can best be defined as
- A. The utility a consumer derives from the last unit of a consumer good she or he consumes.
 - B. The total utility a consumer derives from the consumption of all of the units of a good or a combination of goods over a given consumption period.
 - C. The more of a good a consumer has, or has consumed, the less marginal utility an additional unit contributes to his or her overall satisfaction.
 - D. The difference between what a consumer is willing to pay for an addition unit of a good and the market price that he/she actually pays.
7. The Human Development Index is:
- A. Defined as the Percentage of the Population Below the Basic Needs Poverty Line.
 - B. Is a composite statistic of life expectancy, education, and income per capita.
 - C. The fundamental lessons about individual decision making are that people face tradeoffs among alternative goals, that the cost of any action is measured in terms of forgone opportunities.
 - D. A basic economic model which shows the tradeoffs society or an individual faces in how to use scare resources.
8. Extension in demand is caused
- A. Demand is caused by an increase in Price and illustrated by a movement up the demand curve.
 - B. Other things being equal when quantity demanded rises with a fall in prices.
 - C. Demand increases as the price increases, because of its exclusive nature and appeal as a status symbol.
 - D. The increase in demand is due to the income effect of the higher price outweighing the substitution effect.
9. Given the following data, determine the price elasticity of demand when the price changes from \$9.00 to \$10.00", quantity changes from 150 units to 110 units.
- A. 2.9
 - B. 2.6
 - C. 2.8
 - D. 2.4
10. For example, if, in response to a 10% increase in income, the demand for a good increased by 20%, the income elasticity of demand would be:
- A. 2
 - B. -2
 - C. -2.6
 - D. 2.1

II. TRUE AND FALSE (10 Marks)

1. The market demand curve shows the amounts of the good demanders are willing to buy at all different, possible prices.
2. When demand exceeds supply, the price rises as buyers offer to pay higher prices so they can get more of the good. This moves the price toward its equilibrium level.
3. The negative relationship reflects the law of demand.
4. Just the opposite is correct. The smaller the fraction of income spent on a good, the more inelastic is its demand.
5. This is what it means when the price elasticity of supply increases: supply has become more responsive to price.
6. If the demand curve has the typical downward slope, both the equilibrium price and quantity change.
7. When demand decreases, the demand curve shifts back, to the left.
8. The definition of complementary goods is that an increase in the price of one good lowers the demand for the other.
9. It is very important to realize that most factors shift either the supply or demand curve but do not shift both.
10. Whenever the price elasticity of demand exceeds one, demand is price elastic this means the supply curve shifts back, to the left.

III. DEFINITIONS (10 Marks)

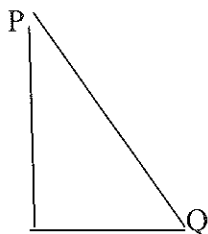
1. Price Elasticity of Demand.
2. Agricultural Economics.
3. Market Equilibrium.
4. Supplementary Goods.
5. Comparative Static Analysis.
6. Accounting Cost.
7. Economies of Scale.
8. Marginal Cost.
9. Diminishing Marginal Utility.
10. Consumer Surplus.

SECTION B SHORT ANSWER QUESTIONS (20 Marks)

1. List down the 5 determinants of demand. (5 Marks)
2. List down the 5 common types of elasticity. (5 Marks)
3. List down the 3 rules for price elasticity for demand. (3 Marks)
4. What causes a contraction in demand? (2 Marks)
5. Differentiate between a consumer surplus and producer surplus. (3 Marks)
6. What is the difference between a monopoly and a monopolistic competition type of market structure? (2 Marks)

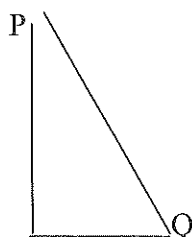
SECTION C GRAPHS AND CALCULATIONS (50 Marks)

1. Show on the graphs and describe in words, the movement or shifts of the demand curve for each of the following situations. Note for every situation described below only the factor described is changing. All other factors in that particular situation are held constant. (3 Marks)



Demand curve for cassava.

Situation: Increase in price of cassava.



Demand curve for fish.

Situation: Decrease in population eating chicken.

2. Show in a diagram the effect on the demand curve, the supply curve, the equilibrium price, and the equilibrium quantity of each of the following events. (2 Marks)
- A. The market for newspapers in your town:
- Case 1: The salaries of journalists go up.
- Case 2: There is a big news event in your town, which is reported in the newspapers.
3. The market for burgers. (2 Marks)
- Case 1: People realize how fattening burgers are.
- Case 2: People have less time to make themselves a cooked breakfast.
4. Calculate cross elasticity of Good A and Good B from the following information. When price of good A increases from \$10 to \$11 quantity demanded for good B decreases from \$120 to \$80 also state what type of good is it. (3 Marks)
5. (a) Calculate price elasticity of demand for fertilizer Z given that when price of fertilizer increases from \$98/50kg bag to \$110/50kg bag quantity demanded decreases from 200 50kg bags to 145 50kg bags? (b) What type of elasticity is this? (3 Marks)
6. Suppose that demand is given by the equation $QD=500 - 50P$, where QD is quantity demanded, and P is the price of the good. Supply is described by the equation $QS= 50 + 25P$ where QS is quantity supplied. What is the equilibrium price and quantity? (5 Marks)

7. If there is a particularly hot summer, students may prefer to drink more soft drinks at all prices, as indicated below. (10 Marks)

Combined supply and demand for soft drinks

Price per unit(\$)	Quantity Demanded(old)	Quantity Supplied (old)	Quantity Demanded(new)	Quantity Supplied (new)
110	0	1000	100	260
100	100	900	120	240
90	200	800	140	220
80	300	700	160	200
70	400	600	180	180
60	500	500	200	160
50	600	400	220	140
40	700	300	240	120
30	800	200	260	100

From the above information plot the graphs of demand and supply (both old and new) and determine the equilibrium price.

8. Consider the following hypothetical example of a boat building firm. The total fixed costs, TFC, include premises; machinery and equipment needed to construct boats, and are \$100,000 irrespective of how many boats are produced. Total variable costs (TVC) will increase as output increases. Calculate the remaining costs and plot all the cost curves on a graph. (20 Marks)

OUTPUT	TOTAL FIXED COST(\$)	TOTAL VARIABLE COST(\$)	TOTAL COST (\$)
1	100	50	150
2	100	80	180
3	100	100	200
4	100	110	210
5	100	150	250
6	100	220	320
7	100	350	450
8	100	640	740

From the information provided calculate Average Fixed Cost (AFC), Average Variable Cost (AVC), Average Total Cost (ATC) and Marginal Cost (MC).

9. Answer the question on the basis of the following cost data:

(2 Marks)

OUTPUT	TOTAL COST
0	24
1	33
2	41
3	48
4	54
5	61
6	69

Refer to the above data to answer questions A and B.

- A. The average total cost of producing three units of output is?
- B. The marginal cost of producing the sixth unit of output is?

THE END

BEST OF LUCK!!!