Fiji National University

COLLEGE OF AGRICULTURE, FISHERIES & FORESTRY

AEC 402

Introductory Agricultural Economics

Trimester 1 Examination -2014

TIME ALLOWED: 3 hours plus 10 minutes reading time

INSTRUCTIONS

1. This paper consists of three parts and 7 pages.
2. In the part I, there are 10 questions and you have to answer **all** questions.
3. In the part II, there are 20 questions and you have to answer **all** questions.
4. In the part III, there are 5 questions and you have to answer **all** questions
   Answer the questions in the answer booklet, provided.
5. Printed or written materials are **NOT** allowed in the examination hall.
6. Pencil, ruler and calculator are needed.
7. Make sure to indicate your identification number in all pages you use.

Summary of Questions

Part	Guidelines	Total Marks
10 Questions	**Indicate whether the given statement is true or false**	**10**
20 Questions	**Select the suitable solution among the answers provided(MCQ's)**	**20**
5 Questions	**Descriptive type answers expected**	**70**

PART I

10 marks

Answer the following questions. Indicate the statement given is True or False

1. A **change in quantity demanded** can be illustrated by a movement between points along a demand curve.
   A). True B). False (…………)

2. A **shift in demand** refers to an increase (rightward change) or decrease (leftward change) in the quantity demanded at each possible price.
   A). True B). False (…………)

3. **A Change in the Number of Buyers** or **Population growth** will decrease the demand for products.
   A). True B). False (…………)

4. **Supply** refers to the quantities of a product that producers are willing and able to offer at a given price.
   A). True B). False (…………)

5. The **law of supply** states that sellers will offer more of a good at a higher price and less at a lower price.
   A). True B). False (…………)

6. A **Market Surplus** occurs when quantity supplied is greater than quantity demanded.
   A). True B). False (…………)

7. Price Floors are maximum prices set by the government for certain commodities and services.
   A). True B). False (…………)

8. **Price floors** are only an issue when they are set above the equilibrium price, since they have no effect if they are set below market clearing price.
   A). True B). False (…………)

9. **Price Ceilings** are maximum prices set by the government for particular goods and services that they believe are being sold at too high of a price and thus consumers need some help purchasing them.
   A). True B). False (…………)

10. **Price ceilings** only become a problem in other wards binding when they are set above the market equilibrium price.
    A). True B). False (…………)

PART II

20 marks

Select the suitable answer among the solutions provided

1. Profit-maximizing firms want to maximize the difference between
   A. Marginal revenue and average cost.
   B. Total revenue and total cost.
   C. Total revenue and marginal cost.
   D. Marginal revenue and marginal cost.
   E. Maximize its production and sale for higher price

2. Which statement is FALSE?
   A. Fixed costs do not depend on the firm's level of output.
   B. Fixed costs are zero if the firm is producing nothing
   C. Fixed costs are the difference between total costs and total variable costs
   D. There are no fixed costs in the long run
   E. TC equal VC togather with FC

3. Diminishing marginal returns implies:
   A. Decreasing marginal costs
   B. Decreasing average fixed costs
   C. Decreasing average variable costs
   D. Increasing marginal costs
   E. None of the above

4. Maximum profit of the firm will be achieved when
   A. MR =MC
   B. AVC is above the AFC
   C. ATC is less than MR
   D. Increase In MR
   E. Maximum revenue where P*Q

5. To economists the main difference between the short run and the long run is that:
   A. The law of diminishing returns applies in the long run, but not in the short run
   B. In the long run all resources are variable, while in the short run at least one resource is fixed.
   C. Fixed costs are more important to decision making in the long run than they are in the short run.
   D. In the short run all resources are fixed, while in the long run all resources are variable.
6. Marginal product of labor is:
   A. The increase in total output attributable to the employment of one more worker.
   B. The increase in total revenue attributable to the employment of one more worker.
   C. The increase in total cost attributable to the employment of one more worker.
   D. Total product divided by the number of workers employed.

7. Which of the following will cause the demand curve for product shift to the left?
    A. Population growth which causes an expansion in the number of persons consuming good A
    B. An increase in income if good A is a normal good
    C. A decrease in the price of complementary good C
    D. An increase in income if good A is an inferior good
    E. An increase in the price of substitute good B

8. 10. Which of the following statements about the price elasticity of demand is true?
    A. Along a linear, negatively sloped demand curve, the price elasticity of demand increases as price falls.
    B. Given a vertical demand curve, the price elasticity of demand is equal to infinity at every price.
    C. Given a horizontal demand curve, the price elasticity of demand is equal to zero for every output.
    D. Given an effective price ceiling, the resulting shortage is bigger the less elastic the demand.
    E. Along a linear, negatively sloped demand curve, total revenue is maximized when the price elasticity of demand equals 1

9. Suppose the supply curve of good X is perfectly elastic. If there is an increase in demand for good X, then **the equilibrium price:**
    A. and quantity will both increase.
    B. Will remain unchanged but equilibrium quantity will increase.
    C. Will increase but equilibrium quantity will be unchanged.
    D. and quantity will both decrease.
    E. Will increase but equilibrium quantity will decline.

10. When government impose a tax for a particular good, who bears the more tax burden when the demand curve is inelastic than the supply curve of the particular good
    F. Consumers
    G. Suppliers
    H. The government
    I. Both the consumers and Producers
    J. A, B and C above

11. The two goods are ________. A _________ in the price of one good will _________ the demand for the other good:

    (A) substitutes; increase; increase;
    (B) substitutes; increase; decrease;
    (C) complements; increase; increase;
    (D) complements; increase; decrease;
    (E) A & D

12. _____ Elasticity of demand refers to the degree of consumer responsiveness to the percentage change in _______ with respect to the percentage change in _______:
    (A) Income; price of the a good; income;
    (B) Income; quantity of a good; income;
    (C) Own-price; price of a good; demand for that good;
    (D) Own-price; quantity demanded; price of a good;
    (E) Cross-price; quantity of one good; price of the other good;
    (F) B & D & E.

13. The _____ substitutes available, the ____ elastic the demand for a good is:
    (A) more; less;
    (B) more; more;
    (C) less; more;
    (D) Not enough information.

14. If the price elasticity of demand for a good is 0.75, the demand for the good can be described as:
    (A) normal.
    (B) elastic.
    (C) inferior.
    (D) inelastic .
    (E)not enough information

15. When the price of a product is increased by 10 %, the quantity demanded decreases 15%. In this range of prices, demand for this product is:
    A) elastic.
    B) inelastic.
    C) cross-elastic.
    D) unitary elastic. .
    (E)not enough information

16. 6. If the price elasticity of demand for a product is equal to 0.5, then a 10 percent decrease in price will:
    A) increase quantity demanded by 5 percent.
    B) increase quantity demanded by 0.5 percent.
    C) decrease quantity demanded by 5 percent.
    D) decrease quantity demanded by 0.5 percent.
    E) None of the above

17. Suppose you are given the following data on demand for a product. The price elasticity of demand when price decreases from $9 to $7 is:

Price ($)	Quantity Demanded
10	30
9	40
8	50
7	60
6	70

(A) .63
(B) 1.16
(C) 1.60.
(D) 2.27
(E). 10

18. If an increase in the supply of a product results in a decrease in the price, but no Change in the actual quantity of the product demand, then:
A) the price elasticity of supply is zero.
B) the price elasticity of supply is infinite.
C) the price elasticity of demand is unitary.
D) the price elasticity of demand is zero.
E) No equilibrium

19. Suppose at a price of $10 the quantity demanded is 100. When price falls to $8, the quantity demanded increases to 130. The absolute value of the price elasticity of demand between the prices of $10 and $8 is approximately:
A) 1.17
B) 1.50
C) 0.85
D) 1.00
E). 1.20

20. A shirt manufacturer sold 10 dozen shirts per day when the price was $4 per shirt but sold 15 dozen shirts per day when the price was $3 per shirt. Hence, the price elasticity of demand is:
A) greater than zero but less than 1.
B) equal to 1.
C) greater than 1 but less than 3.
D) greater than 3.
E) none of the above

PART III

70 marks

1. Answer the followings
   1.1 Explain the law of demand.
   1.2 Why does a demand curve slope downward towards to the right?
   1.3 How market demand curve is derived from individual demand curves?
   1.4 What are the determinants of demand?
   1.5 Distinguish between a change in demand and a change in the quantity demanded, noting the cause(s) of each.

10 marks

2. The demand for sugar beet was represented by the following equation:
   Q = 70,000 - 2,000*P
   and Supply of the sugar beet was represented by the following equation:
   Q = 5,000 + 2,000*P
   2.1 Find the equilibrium Price and Quantity of Sugar Beet.
   2.2 If the government set the price floor at 18 $ what would you expect? comment

10 marks

3. How will each of the following changes in demand and/or supply affect equilibrium price and equilibrium quantity in a competitive market? Use supply and demand diagrams to verify your answers.
   3.1 Demand increases and supply is constant.
   3.2 Supply decreases and demand is constant.
   3.3 Demand decreases and supply is constant.
   3.4 Supply increases and demand is constant.
   3.5 Supply increases and demand decreases.

15 marks

4. Show a labor market with a binding minimum wage using a supply and demand diagram. Use the diagram to show those who are helped by the minimum wage and those who are hurt by the minimum wage.

15 marks

5. Table below show the schedule of input output relationship. Cost of employing each worker is 120 $ per day as only variable cost. The total fixed cost for this activity is $ 330 per day. Complete the table by computing Total Fixed cost(TFC), Total Variable cost(TVC), Total cost(TC), Marginal Cost(MC), Average fixed cost(AFC), Average variable cost(AVC), and average total cost(ATC).

Labour input	Total production	TFC	TVC	TC	MC	AFC	AVC	ATC
0	0							
1	6							
2	15							
3	27							
4	37							

20 marks