Important: Please remember it is a sample exam. Number of questions in each section and structure of questions in Part B would vary as discussed in class.

VANCOUVER ISLAND UNIVERSITY

ECON211: Principles of Microeconomics, Spring 2013

SAMPLE MIDTERM EXAM

Name (Last, First): ______________________________________________

ID #: ________________________________________________________

Signature: ____________________________________________________

THIS EXAM HAS TOTAL _____ PAGES INCLUDING THE COVER PAGE

Instructions:

• Total marks ____ and you have 75 Minutes to complete the exam.

• Please answer your MCQs in the table provided on the last page and short questions in the space provided.

• For short answer questions
  ➢ You must show your all work to get full marks. If you do not show work, you may not get full marks even for a correct answer.
  
  ➢ Use the marks assigned to each question as a guide to allocating your time across questions.

Good Luck on Your Exam
PART A

(There are 30 MCQ in this section, worth 30 marks)

1. In the Canadian economy, most decisions regarding resource allocation are made by:
   a. business firms only.
   b. negotiation between unions and firms.
   c. consumers and producers interacting in the price system
   d. Legal contract
   e. The various levels of government

2. Economics can best be described as
   a. the study of how to reduce inflation and unemployment
   b. a normative science
   c. the study of the use of scarce resources to satisfy unlimited human wants
   d. the study of how a society ought to allocate its resources
   e. the application of sophisticated mathematical models to address social problems

3. Positive statements
   a. have been verified by appeal to factual evidence.
   b. are seldom employed in social sciences like economics
   c. are falsifiable in principle by appeal to factual evidence.
   d. form the basis of all normative arguments
   e. have no place in economics because economics deals only with value judgments

4. Refer to the figure below. The following combinations of kilometres of highway repair and helicopters are NOT available, given the government's budget of $200 million.

   a. E
   b. B
   c. G
   d. D
5. The supply and demand schedules for dozens of roses are given below:

<table>
<thead>
<tr>
<th>Price</th>
</tr>
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<tbody>
<tr>
<td>$10</td>
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<tr>
<td>$20</td>
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<td>$30</td>
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<tr>
<td>$40</td>
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<tr>
<td>$50</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantity Supplied per period</th>
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<tbody>
<tr>
<td>200</td>
</tr>
<tr>
<td>300</td>
</tr>
<tr>
<td>400</td>
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<tr>
<td>500</td>
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<tr>
<td>600</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantity Demanded per period</th>
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<tbody>
<tr>
<td>500</td>
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<tr>
<td>450</td>
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<tr>
<td>400</td>
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<tr>
<td>350</td>
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<tr>
<td>300</td>
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</tbody>
</table>

The equilibrium price for a dozen roses is $30.

6. A fall in the price of potatoes, which are used in the production of french fries, will
   a. no effect on the supply of french fries
   b. lead to a decrease in the supply of french fries, causing the supply curve of french fries to shift to the left
   c. have no effect on the supply of french fries but cause a movement along the supply curve of french fries
   d. lead to an increase in the supply of french fries, causing the supply curve of french fries to shift to the right
   e. lead to a decrease in the demand for french fries

7. Shift in the supply curve from $S_2$ to $S_1$ might be caused by

   a. additional suppliers entering the industry
   b. a decrease in demand for X
   c. an improvement in the technology of producing good X
   d. a decrease in the price of X
   e. a rise in the costs of producing good X

8. A change in demand is said to take place when there is a
   a. price change
   b. movement along the demand curve
   c. shift of the supply curve
   d. quantity change
   e. shift of the demand curve
9. When the percentage change in quantity demanded is less than the percentage change in price that brought it about, demand is said to be
   a. Unit elastic
   b. Elastic
   c. Zero elastic
   d. Unelastic
   e. Inelastic

10. Suppose that the quantity of beer demanded falls from 103,000 litres per week to 97,000 litres per week as a result of a 10 percent increase in its price. The price elasticity of demand for beer is therefore
   a. 6.0
   b. Impossible to compute unless we know the before and after prices
   c. 1.03
   d. 1.97
   e. 0.6

11. If two goods, X and Y, have a negative cross-elasticity of demand, then we know that they
   a. are both inferior goods
   b. are substitute
   c. each have a price elasticity greater than one
   d. Undefined
   e. are complements

12. Government price controls are policies that attempt to maintain the
   a. quantity sold at less than the quantity bought
   b. quantity bought at less than the quantity sold
   c. none of these responses is correct
   d. the price at some disequilibrium value
   e. market price at equilibrium

13. Refer to the figure. A price floor set at a price of $3.00 will result in
   a. a surplus of 10 units
   b. a shortage of 20 units
   c. no change in the market outcomes
   d. a surplus of 20 units
   e. a shortage of 10 units

14. Automobiles and gasoline are likely to
   a. substitute goods
   b. complementary goods
   c. inferior goods
   d. independent goods
   e. luxury goods
15. A leftward shift in the supply curve indicates
   a. that more suppliers have entered the industry
   b. decrease in the quantity supplied at each price
   c. that more is demanded at each price
   d. an increase in the quantity supplied at each price
   e. that an increase in income results in an increase in the quantity demanded at each price

16. Suppose that, in a two-good world, the price of the first good has increased from $3.00 to $4.00 and the price of the second good has increased from $150 to $200. The relative price of the first good
   a. is completely unrelated to the price of the second good
   b. remained constant
   c. cannot be determined from the above data
   d. has risen
   e. has fallen

Use the figure below to answer two following questions

17. Demand is inelastic
   a. over the entire demand curve in diagram 3
   b. over the entire demand curve in diagram 1
   c. section (a) of the demand curve in diagram 1
   d. over section (b) of the demand curve in diagram 1
   e. at the midpoint between sections (a) and (b) of the demand curve in diagram 1

18. Demand is perfectly elastic
   a. over the entire demand curve in diagram 3
   b. over the entire demand curve in diagram 1
   c. section (a) of the demand curve in diagram 1
   d. over the entire demand curve in diagram 4
   e. over section (b) of the demand curve in diagram 1
19. At any disequilibrium price, whether controlled or not, the quantity actually exchanged is determined by
   a. the lesser of quantity demanded and quantity supplied.
   b. the elasticity of demand
   c. the elasticity of supply.
   d. the greater of quantity demanded and quantity supplied.
   e. government decree.

20. The short-run supply for housing is quite _______ while the long-run supply for housing is quite _______.
   a. inelastic; elastic
   b. elastic; inelastic
   c. inelastic; inelastic
   d. elastic; elastic
   e. flat; steep
PART B

(In this part, there 6 short answer questions, worth 30 marks)

i. The production possibility boundary for Edward is given in the table

<table>
<thead>
<tr>
<th>Chair</th>
<th>Table</th>
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<tbody>
<tr>
<td>100</td>
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a. Construct the production possibility frontier/boundary for Edward

![Edward's PPF](image)

b. Calculate the slope of the production possibility frontier

\[ \text{Slope} = \frac{\text{Rise}}{\text{Run}} = \frac{\Delta \text{ in Chair}}{\Delta \text{ in Table}} = \frac{40 - 100}{30 - 0} = \frac{-60}{30} = -2 \]

c. What is Edward’s opportunity cost (OC) of producing an additional table

\[ OC \text{ of table} = \frac{\text{Give up}}{\text{Get}} = \frac{100 - 40}{30 - 0} = \frac{60}{30} = 2 \text{ chair} \]

d. What is Edward’s opportunity cost of producing an additional chair

\[ OC \text{ of chair} = \frac{\text{Give up}}{\text{Get}} = \frac{50}{100} = \frac{1}{2} \text{ table} \]
ii. Carefully explain the difference between quantity demanded and demand for a good/product

When the demand for a good is related to its price, it is called the quantity demanded. Ceteris Paribus, the quantity demanded for a good increases when the price of the good decreases, and vice versa. For a change in price of a good we move along the demand curve.

On the other hand, when the demand for a good is related to other factors, e.g., income, taste, substitutes, etc., it is called demand. For instance, when income increases, at a given price level, a consumer can purchase more; hence the demand increases and demand function shifts to the right.

iii. Briefly discuss the practical significance of cross price elasticity of demand

The cross price elasticity shows the responsiveness of quantity demanded for a good to the change in the price of another good.

Using cross price elasticity we can easily identify what type of goods we are dealing with. When the sign of the calculated cross price elasticity is positive, two goods are substitutes; when the sign in negative two goods are complements.

iv. Suppose the market for frozen orange juice is in equilibrium at a price of $1.00 per can and a quantity of 4200 cans per month. Now suppose that at a price of $1.50 per can, quantity demanded falls to 3000 cans per month and quantity supplied increases to 4500 cans per month.

a. Draw the appropriate diagram for this market

b. Calculate the price elasticity of demand for frozen orange juice between the prices of $1.00 and $1.50. Is the demand elasticity elastic or inelastic?

\[
\text{Price Elasticity of Demand, } E_d = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}} = \frac{(Q_1 - Q_0)/(Q_1 + Q_0)}{(P_1 - P_0)/(P_1 + P_0)} = \frac{(3000 - 4200)/(3000 + 4200)}{(1.50 - 1.00)/(1.50 + 1.00)} = \frac{-1200/7200}{0.5/2.50} = -0.167/0.2 = -0.835
\]

\(E_d < 1\), inelastic demand for the orange juice.
c. Calculate the elasticity of supply for frozen orange juice between prices of $1.00 and $1.50. IS the supply elasticity elastic or inelastic

\[ Price \, Elasticity \, of \, Supply, E_s = \frac{\% \, change \, in \, quantity \, supplied}{\% \, change \, in \, price} = \frac{(Q_1 - Q_0)/(Q_1 + Q_0)}{(P_1 - P_0)/(P_1 + P_0)} = \frac{(4500 - 4200)/(4500 + 4200)}{(1.50 - 1.00)/(1.50 + 1.00)} = \frac{0.5/2.50}{0.2} = \frac{0.2}{0.2} = 0.172 \]

\( E_s < 1 \), inelastic supply of orange juice

d. Explain in general what factors would affect the elasticity of demand for and supply of juice.

Major factors that influence the price elasticity of demand are availability of substitutes and time span allowed. For instance, if there are some substitutes like apple juice and mango juice available; consumers would switch to them when the price of orange juice increases. So, the price elasticity of demand for orange juice would be high.

On the other hand, the elasticity of supply depends mainly on resource substitution possibilities and time frame for supply decision.

Resource substitution possibilities: Transferring resources, factors of production, from one production plant/facilities to another plant. A producer normally produces a good based on the production capacity. If the market price of the good he is producing goes up he will be responding if it is possible to expand production capacity of the good. It also implies if it is possible to transfer resources from another production plant, say, from apple juice production plant, quickly.
Please answer your MCQs in the following table

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