FINAL
Examination Paper

(COVER PAGE)

Session : August 2014

Programme : Diploma in Business (DIB)
             Diploma in Finance (DIF)
             Diploma in Entrepreneurship (DENT)

Course : ECO2103 : PRINCIPLES OF MICROECONOMICS

Date of Examination : December 9, 2014

Time : 11:00am – 1:00pm    Reading Time : Nil

Duration : 2 Hours

Special Instructions :

This paper consists of SIX (6) questions. Answer any FOUR (4) questions in the answer booklet provided. All questions carry equal marks.

Materials permitted : Non-Programmable Calculator

Materials provided : Nil

Examiner(s) : Mr. Frederick Lo Vui Han, Sholiha Abd Rahman, Hazrina Johari, Khor Kok Chin.

Moderator : Associate Professor Dr. Evelyn S. Devadason

This paper consists of 5 printed pages, including the cover page
Instructions: This paper consists of SIX (6) questions. Answer any FOUR (4) questions. All questions carry equal marks.

Question 1

(a) List the four factors of production for an economy. (2 marks)

(b) After the fall of the Soviet Union and its command economy during the early 1990s, the free market system has been adopted by most of the countries in the world. Evaluate the free market system by discussing TWO (2) of its merits and TWO (2) of its demerits, as compared to the command system. (12 marks)

(c) The table below shows the production possibility curve for carrots and potatoes:

<table>
<thead>
<tr>
<th>Combination</th>
<th>Carrots (kg)</th>
<th>Potatoes (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>300</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>280</td>
<td>10</td>
</tr>
<tr>
<td>C</td>
<td>240</td>
<td>20</td>
</tr>
<tr>
<td>D</td>
<td>180</td>
<td>30</td>
</tr>
<tr>
<td>E</td>
<td>100</td>
<td>40</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>50</td>
</tr>
</tbody>
</table>

(i) Define opportunity cost. (2 marks)

(ii) What is the opportunity cost of producing the first 10 kg of potatoes? (1 mark)

(iii) What will be the opportunity cost if the production of carrots increases from 180 to 240 kg? (1 mark)

(iv) If this country wants to produce 300 kg of carrots and 60 kg of potatoes, can this combination be achievable? Why? (3 marks)

(v) Discuss TWO (2) methods for the country to expand its production possibility curve. (4 marks)
Question 2

(a) (i) Explain the relationship between total utility and marginal utility with an example. (4 marks)

(ii) Explain the law of diminishing marginal utility. (2 marks)

(b) John consumes two products, Good K and Good J. Assume the prices for Good K and J are $8 and $4 respectively. The budget for John is $52. Total utility for John deriving from the two goods is shown below:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Total Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good J</td>
</tr>
<tr>
<td>1</td>
<td>56</td>
</tr>
<tr>
<td>2</td>
<td>104</td>
</tr>
<tr>
<td>3</td>
<td>136</td>
</tr>
<tr>
<td>4</td>
<td>160</td>
</tr>
<tr>
<td>5</td>
<td>170</td>
</tr>
<tr>
<td>6</td>
<td>176</td>
</tr>
<tr>
<td>7</td>
<td>178</td>
</tr>
</tbody>
</table>

(i) Calculate the marginal utility for each product. (4 marks)

(ii) How many units of good J and good K should John buy to maximize his utility with the income of $52? (8 marks)

(iii) What is the total utility received by John at equilibrium? (1 mark)

(c) With the aid of a graph, explain the concept of consumer surplus. (6 marks)

Question 3

(a) "Production in the short run is subject to the law of diminishing return." Demonstrate the validity of the above statement with an example. (4 marks)

(b) Discuss FOUR (4) reasons causing economies of scale to happen. (12 marks)

(c) "When MR > MC, production should be raised. If it is the other way round, production should be cut. If MR = MC, production should stay." Explain with the aid of a graph. (Note: MR= Marginal Revenue ; MC= Marginal Cost) (9 marks)
Question 4

(a) Discuss TWO (2) characteristics associated with a public good and the free rider problem that arises. (7 marks)

(b) Government intervention is sometimes justified due to a specific form of market failure, namely information failure; it could happen due to the inadequate information involving the sellers.

(i) Explain this form of market failure with an appropriate example. (3 marks)

(ii) What is the negative consequence of this form of market failure? (3 marks)

(iii) Discuss ONE (1) method the government can use to resolve this problem? (2 marks)

(c) (i) What is an externality? (2 marks)

(ii) For a negative externality, the marginal social cost (MSC) exceeds the marginal private cost (MC). With the aid of a graph, explain the concept. (6 marks)

(iii) Suggest ONE (1) method to solve the problem of negative externality. (2 marks)

Question 5

(a) Answer the questions based on the table below.

<table>
<thead>
<tr>
<th>Output (Unit)</th>
<th>Total Cost ($)</th>
<th>Marginal Cost ($)</th>
<th>Price ($)</th>
<th>Marginal Revenue ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>80</td>
<td></td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>82</td>
<td></td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>88</td>
<td></td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td></td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>124</td>
<td></td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>160</td>
<td></td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>208</td>
<td></td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

(i) Calculate the marginal cost and marginal revenue at each output level. (7 marks)

(ii) What is the profit-maximizing price and output? (2 marks)

(iii) Calculate the total amount of profit at equilibrium. (2 marks)
(b) Discuss **TWO** (2) justifications for the existence of monopoly. (6 marks)

(c) Restaurants are believed to be competing in the monopolistically competitive market. Discuss **FOUR** (4) characteristics of monopolistic competition that could be applied to the market structure of restaurants. (8 marks)

**Question 6**

(a) Discuss **THREE** (3) determinants of elasticity of supply. (9 marks)

(b) When the price of Good A falls from $16 to $14, the quantity demanded increases from 200 to 300 units per month. The demand for Good B falls from 250 to 200 units per month.

   (i) Calculate the price elasticity of demand using the midpoint formula. (3 marks)

   (ii) If the price of Good A increases, what will happen to the total revenue of the company that produces Good A? Explain. (2 marks)

   (iii) Calculate the cross elasticity of demand between Good A and B. Based on the answer, explain the relationship between both. (4 marks)

(c) (i) With the aid of a graph, illustrate a minimum price policy set by the government. (5 marks)

   (ii) Discuss **ONE** (1) problem associated with the minimum price policy. (2 marks)

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