Econ 101: Introductory Economics
Quiz I (Version a), 29 January 2016

Name (Family) Answer (First) Key
Student #

Part A: Choose the best answer for the following 12 questions. Make only one choice for each question. (24 marks)

1. When all of the available factors of production (i.e. resources) are being employed, the
   A). economy is producing at a point within its PPC.
   B). economy is producing at a point on its PPC.
   C). economy is producing at a point beyond its PPC.
   D). PPC shifts to the right.

2. If there is unemployment in an economy, then the
   A). economy is producing at a point on the production possibilities curve.
   B). economy is operating at an unattainable point.
   C). production possibilities curve will shift outwards.
   D). economy is producing at a point inside the production possibilities curve.

3. In a production possibilities frontier graph, the cost of producing more units of a good is measured by the
   A). dollar value of the resources used to produce the good.
   B). amount of the other good or service that must be forgone.
   C). dollar value of the additional output.
   D). area in the arc between the PPF and a straight line drawn between the starting point and the ending point.

4. Which of the following is true regarding demand?
   i) Demand is the relationship between quantity demanded and the price of a good when all other influences on buying plans remain the same.
   ii) Demand refers to one quantity at one time.
   A). only i
   B). only ii
   C). both i and ii
   D). neither i nor ii

5. Which of the following statements is a normative statement?
   A). Inflation has been at an all time low this year.
   B). The minimum wage should be increased to $11.50 per hour.
   C). Unemployment this month has increased by less than 0.5 percentage point.
   D). Additional spending on education has not produced any rise in test scores.

6. The Latin phrase *ceteris paribus* is best defined as
   A). the rational choice is made.
   B). benefits are greater than the costs.
   C). other things remaining the same.
   D). the tendency for the values of two variables to move together in a predictable and related way.

7. When a tradeoff does NOT exist between two goods, the situation is known as
   A). opportunity cost.
   B). scarcity.
   C). a free lunch.
   D). efficient production.
8. Which of the following statements is true about a competitive market? A competitive market
   A). must have a physical location.
   B). includes markets for goods and services but not for inputs.
   C). has so many buyers and sellers that no one can influence the price.
   D). has one seller competing to sell his or her product.

9. Gasoline prices increase by 50 percent and other things remain the same. As a result, there is
   A). an increase in the demand for gasoline.
   B). a decrease in the demand for gasoline.
   C). no change in the quantity of gasoline demanded.
   D). a decrease in the quantity of gasoline demanded.

10. The phrase “a change in demand” most directly implies a
    A). movement along a demand curve.
    B). movement along the price curve.
    C). change in the quantity demanded of a good.
    D). shift of the demand curve.

11. Opportunity cost arises because of
    A). desire.
    B). greed.
    C). scarcity.
    D). inefficiency.

12. Which of the following is "not" illustrated by a production possibility curve?
    A). scarcity
    B). opportunity cost
    C). efficiency
    D). all of the above are illustrated

Part B: Answer all questions. MUST show all work, otherwise, no mark will be given. (33 marks)

1. PPC: The economy of Britannia uses labour only to produce candy bars and bags of peanuts. The number of
   labour is fixed at 20. (15 marks)

<table>
<thead>
<tr>
<th># of Labour</th>
<th>Candy bars/20</th>
<th>Bags of peanuts/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
<td>0.6</td>
</tr>
<tr>
<td>20</td>
<td>8</td>
<td>0.8</td>
</tr>
</tbody>
</table>

(a). Draw the PPC in detail, and show all combinations on the PPC. (5 marks)
(b). Calculate the opportunity cost of producing 1 more unit of candy bar from 2 to 4. (2 marks)

\[ \text{Opp. cost} = \frac{(21-27)}{(4-2)} \frac{P}{C} = -3 \frac{P}{C} \]

(c). Is the production of 6 candy bars and 27 bags of peanuts attainable and efficient? Explain and show this combination on your PPC in part (a). (4 marks)

unattainable \hspace{1cm} it is outside \hspace{0.5cm} PPC

(d). If new resources are found for the production of candy bars only and which will increase the amount of candy bars produced by 50%. Plot both the old and new PPCs in the space provided below. Show at least two combinations on each curve. (4 marks)
2. (18 marks)
Y: 2 4 6 8 etc
X: 10 8 6 4 etc

(a). Calculate the slope. (4 marks)

\[ \text{slope} = \frac{\Delta Y}{\Delta X} = \frac{2 - 8}{10 - 8} = -1 \]

(b). Calculate the y-intercept. (3 marks)

\[ y = a - 1 \times \]
\[ 2 = a - 10 \]
\[ a = 12 \]

(c). Calculate the x-intercept. (3 marks)

\[ 12 - x = 0 \]
\[ x = 12 \]

(d). Show the equation \( y = f(x) \). (2 marks)

\[ y = 12 - x \]
(e) Show the equation \( x = f(y) \). (2 marks)

\[
x = 12 - y
\]

(f) Plot the relationship in detail. (4 marks)