1. Complete each of the following tasks with short paragraphs:
   A. Define scarcity and explain how it is related to choices and trade-offs (___/3)
   B. Fully explain the difference between the following (USE EXAMPLES FOR EACH):
      i. Trade-offs and Opportunity Cost (___/3)
      ii. Normative and Positive Economics (___/3)
      iii. Price and Cost (___/3)
      v. Allocative and Productive Efficiency (___/3)
      vi. Free-Market and Centrally Planned (___/3)

2. Draw a Production Possibilities Graph for Toyota using the following information: (___/5)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trucks</td>
<td>0</td>
<td>20</td>
<td>28</td>
<td>35</td>
<td>40</td>
<td>43</td>
<td>45</td>
</tr>
<tr>
<td>Cars</td>
<td>54</td>
<td>52</td>
<td>49</td>
<td>43</td>
<td>35</td>
<td>25</td>
<td>0</td>
</tr>
</tbody>
</table>

   A. What are the consequences of Toyota producing at combination A? Combination G? In reality, are either combinations desirable? Why? Why not? (___/5)
   B. Plot the combination with 30 cars and 40 trucks and label it “Y.” Plot the combination with 40 cars and 50 trucks and label it “X.” Explain what is happening at these points? (___/5)
   C. Explain, with examples, how your graph shows 5 concepts:
      i. Opportunity cost (___/2)
      ii. Both times of efficiency (___/3)
      iii. Unemployment (___/2)
      iv. Law of increasing opportunity cost (___/2)
      v. Economic growth (___/2)

3. Use the PPF-A and PPF-B on the back of this paper to answer the following:
   A. On PPF-A, what is the opportunity cost from point a to b in terms of ukuleles? What is the opportunity cost from moving from b to c? Explain why this occurs? (___/5)
   B. On PPF-B, calculate the total opportunity cost from a to b, b to c, e to f. Fully explain why the opportunity cost is increasing? (___/5)
   C. Calculate the PER UNIT OPPORTUNITY COST from moving from c to e and from e to c (___/5)

4. Practice FRQs (___/15)

5. The following figures represent the amount that can be produced with a fixed amount of factor inputs.

<table>
<thead>
<tr>
<th></th>
<th>Bananas</th>
<th>Sugarcane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panama</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Honduras</td>
<td>160</td>
<td>40</td>
</tr>
</tbody>
</table>

   A. Which country has the absolute advantage in bananas? Which country has the absolute advantage in sugarcane? Explain how you arrive at that answer? (___/5)
   B. What is Panama’s opportunity cost for producing one unit of bananas? What is Honduras’s opportunity cost for producing one unit of sugarcane? (___/5)
   C. Which country has the comparative advantage in bananas? Which country has the comparative advantage in sugarcane? Should these countries trade? If so, how? (___/5)
   D. Identify a terms of trade that benefits both countries? Explain why this will benefit Panama (___/5)
Basic Economic Concepts

The study of microeconomics requires students to understand that, in any economy, the existence of limited resources along with unlimited wants results in the need to make choices. An effective AP course, therefore, begins by introducing the concepts of opportunity costs and trade-offs, and illustrates these concepts by using the production possibilities curve or other analytical examples. The course can then proceed to a consideration of how different types of economies determine which goods and services to produce, how to produce them, and to whom to distribute them. It is important that students understand why and how specialization and exchange increase the total output of goods and services. Students need to be able to differentiate between absolute and comparative advantage, to identify comparative advantage from differences in output levels and opportunity costs, and to determine the basis under which mutually advantageous trade can take place between countries. Specific examples from actual economic situations can be used to illustrate and reinforce the principles involved. The importance of property rights, the role of incentives in the functioning of free markets, and the principle of marginal analysis should be highlighted.