Exam I Review

I. Chapter 1

A. Economics – The Science of Scarcity
   1. Positive Economics – Deals in tangible things, they are “provable,” whether or not they’re right.
   3. Microeconomics – Deals with small units, such as an individual, firm, industry, or market.
   4. Macroeconomics – Deals with highly aggregate markets (such as goods and services), or the entire economy.

B. Miscellaneous Terms
   1. Opportunity Cost – The most highly valued alternative (the second best thing you could be doing) forfeited when a choice is made.
   2. Scarcity – We must make choices, because our infinite desires are greater than the finite resources available to fulfill those desires.
   3. Ceteris Paribus – “All other things held constant”

C. Logical Fallacies
   1. Association-Causation Issue – Incorrectly assuming that because A occurs before B that A caused B.
   2. Fallacy of Composition – Incorrectly assuming that what’s good/true for the parts is good/true for the whole.
   3. Fallacy of Division – Incorrectly assuming that what’s good/true for the whole is good/true for the parts.

D. Resources
   1. Land – All natural resources. (Land, minerals, water, forests, etc)
   2. Labor – The physical and mental abilities people contribute toward production.
   3. Goods that are used as inputs for producing something else.
   4. Entrepreneurship – The intangible quality of risk taking, of developing new ways of doing things, and creating business opportunities.

II. Chapter 2

A. Productions Possibility Frontier – Represents the maximum possible combinations of two goods that can be produced in a given time.
   1. Assumptions
      a) Technology is fixed.
      b) Resources are fixed.
      c) Full employment of available resources.
      d) Efficient production.
2. Points
   a) On the curve – Represent maximum efficiency and full employment.
   b) Inside the curve – Represent inefficiency or unemployment.
   c) Outside the curve – Represents combinations that are unattainable at the present time.

3. Economic Growth – Causes an outward shift of the PPF to previously unattainable points. Caused by a(n):
   a) Increase in quantity, or quality, of resources.
   b) Technological Advance.

   a) Causes a bowed outward PPF.

B. Fundamental Economic Questions – Capitalism vs. Socialism
   1. What to produce?
   2. How to produce it?
   3. For whom?

C. Comparative Advantage – The ability to produce something at a lower opportunity cost than someone else can.

D. Absolute Advantage – The ability to produce more of something in a given time period, or at a lower cost of production, than someone else can.

Opportunity Cost:
Jack has to give up \( \frac{6}{3} \) 2 hats to get 1 shirt or \( \frac{3}{6} \) ½ a shirt to get 1 hat.
Jill has to give up \( \frac{4}{8} \) ½ a hat to get 1 shirt or \( \frac{8}{4} \) 2 shirts to get 1 hat.

Comparative Advantage:
Jack has a comparative advantage in the production of hats (½ shirt per hat vs. 2 shirts per hat).
Jill has a comparative advantage in the production of shirts (½ hat per shirt vs. 2 hats per shirt).

Absolute Advantage:
Jack has an absolute advantage in the production of hats (6 vs 4), while Jill has an absolute advantage in the production of shirts (8 vs 3).
With specialization, Jack and Jill can produce 6 hats and 8 shirts. Jack will trade Jill 3 hats for 4 shirts, and by trading, they can each go outside their PPF.

III. Chapter 3

A. Demand

1. Law of Demand – Ceteris paribus, an inverse relationship exists between Price and Quantity Demanded.

2. Determinants of Demand
   a) Tastes & Preferences
   b) Price of Related Goods
      a. Compliments
      b. Substitutes
   c) Income
      a. Normal – Demand increases as income increases.
      b. Inferior – Demand for the inferior good decreases, as demand for something else increases, when income increases.
   d) Demographics
   e) Expectations

B. Supply

1. Law of Supply – Ceteris paribus, a direct relationship exists between Price and Quantity Supplied.

2. Determinants of Supply
   a) Price of Inputs (Resources)
   b) Price of other producible goods (Businesses are out to maximize profit, and will change what they produce to do so)
   c) Technology
   d) Number of Producers
   e) Expectations – What they think the price is going to do.
   f) Acts of Nature – Tornado destroys the factory, hurricane floods the fields, etc.
   g) Taxes & Subsidies

3. $Q_D / Q_S$ vs. Demand/Supply
a) Changes in price or Quantity move along the curve, and don’t shift the curve.
b) Changes in Determinants shift the curve.

4. Law of Diminishing Marginal Utility – In a given time period, the marginal utility for consuming additional units of a good will decrease as the amount consumed increases.

C. Equilibrium – \( Q_D = Q_S \) at \( P_e \)
   1. Changes in Equilibrium – Caused by changes in Supply or Demand.

D. Disequilibrium
   1. Surplus – Occurs when Quantity Supplied is greater than Quantity Demanded.
   2. Shortage – Occurs when Quantity Demanded is greater than Quantity Supplied.

E. Price Ceilings – Legal Maximum Price
   1. Must be below Equilibrium Price.
   2. Creates a shortage.

F. Price Floors – Legal Minimum Price
   1. Must be above Equilibrium Price.
   2. Creates a surplus.

IV. Chapter 13

A. Marginal Benefit – The benefit from consuming just one more of a good. Is effected by the law of diminishing marginal utility.
   1. Is equal to the demand curve.

B. Consumer Surplus – The difference between the maximum price a consumer is willing to pay, and what they actually pay.

C. Marginal Cost of Production – The cost of producing just one more unit of a good.
   1. Is equal to the supply curve.
D. Producer Surplus – The difference between the price sellers receive for a good and the minimum price they would accept for the good.
E. Cost of production – The total cost of all the resources that go into the creation of a good.
F. Efficient Level of Output occurs at Equilibrium, where Marginal Benefit = Marginal Cost.
G. Total Surplus = Consumer Surplus + Producer Surplus
H. Deadweight Loss – Loss of efficiency and Total Surplus that occurs from disequilibrium.

\[
\text{Consumer Surplus} = \frac{1}{2}(20-10)*200 = 1000 \\
\text{Producer Surplus} = \frac{1}{2}(10-0)*200 = 1000
\]

I. Elasticity of Demand – Measures consumer responsiveness to a change in price.
   1. \( \frac{\% \text{Change } Q_D}{\% \text{Change } P} \)
      a) If \( \% \text{Change } Q_D > \% \text{Change } P \), then Elasticity > 1; Relatively Elastic.
      b) If \( \% \text{Change } Q_D = \% \text{Change } P \), then Elasticity = 1; Unitary Elastic.
c) If \( \% \text{Change } Q_D < \% \text{Change } P \) then Elasticity < 1; Relatively Inelastic

2. \[
\frac{|Q_2 - Q_1|}{Q_2 + Q_1} \times \frac{P_2 - P_1}{P_2 + P_1}
\]

3. From \( Q_D = 7 \) to \( Q_D = 8 \)

| \( |7-8| \) | \( 1 \) | \( 1 \) | \( \frac{10}{30} \) |
|-----------------|-------|-------|------------------|
| \( 7+8 \)       | 15    | 30    | \( \frac{10}{30} \) |
| \( 2 \)         | 2     |       | 10               |
| \( 3-2 \)       | 1     | 1     | \( \frac{30}{30} \) |
| \( 3+2 \)       | 5     |       | 10               |
| \( 2 \)         |       |       |                  |

Elasticity = 1/3, Relatively Inelastic

4. Along the curve:

5. Determinants of Elasticity
   a) Number of Substitutes
   b) Degree of Necessity
   c) Price of the good as a percentage of income. (larger purchase items tend to be more elastic than smaller items)
   d) Time

6. Perfectly Elastic/Inelastic
   a) Perfectly Elastic – A small percentage change in price causes an extremely (near infinitely) large percentage change in Quantity demanded.
   b) Perfectly Inelastic – Percentage changes in Price have nearly no impact on quantity demanded. (Insulin or other Medication)
7. Elasticity and Total Revenue

a) $ED > 1$
   $\uparrow$ Price, $\downarrow$ Total Revenue
   $\downarrow$ Price, $\uparrow$ Total Revenue

b) $ED = 1$
   $\uparrow \downarrow$ Price, Total Revenue doesn’t change.

c) $ED < 1$
   $\downarrow$ Price, $\downarrow$ Total Revenue
   $\uparrow$ Price, $\uparrow$ Total Revenue

J. Income Elasticity – Measures the responsiveness of quantity demanded to changes in income.

1. $Ey = \frac{\text{Percentage Change in Quantity Demanded}}{\text{Percentage Change in Income}}$

2. $Ey > 0$ -> Normal Good

3. $Ey < 0$ -> Inferior Good

4. $Ey = \frac{\Delta QD}{QD \text{ Average}} \cdot \frac{\Delta Y}{Y \text{ Average}}$

K. Tax Incidence

1. Who bears the burden of a tax
2. Perfectly Inelastic – Consumers pay the entire tax.
3. Perfectly Elastic – Producers pay the entire tax.
4. Causes a Deadweight Loss

Pre-Tax – Price (8) Consumer Surplus (50) Producer Surplus (50)
Taxed – Price (12) Consumer Surplus (32) Producer Surplus (32)
Tax Revenue (32) Deadweight Loss (4)
Practice Problems

1. Choice is fundamentally a consequence of
   a) Living in a world where there are both goods and bads.
   b) how wealthy one is.
   c) scarcity.
   d) opportunity cost.

2. Minerals, animals, water and forests are all considered to be the resource known as
   a) capital
   b) entrepreneurship
   c) labor
   d) land
   e) none of the above

3. Which of the following statements is false?
   a) Positive economists always agree with each other.
   b) Normative economists do not always agree with each other.
   c) Normative economics involves value judgments and opinions.
   d) Positive economics attempts to determine “what is.”

4. Microeconomics is the branch of economics that deals with
   a) highly aggregated markets or the entire economy.
   b) the production side of the economy, exclusively.
   c) the buying side of the economy, exclusively.
   d) human behavior and choices as they relate to relatively small units-an individual, firm, or industry.

5. The latest Blink 182 CD is available for $16.99. Is this price a rationing device?
   a) No, stores will sell the CD to anyone having the required number of dollars.
   b) Yes, many will not buy the CD because they are unwilling to sacrifice other things $16.99 could buy.
   c) No, for price to be a rationing device, it must be so high that only one unit of the item is sold.
   d) Yes, since that is a reasonable price.

6. Suppose the federal government steps up its program of highway repair and renovation. Millions of people see tangible benefits from this. Economists remind us that those same people eventually must pay higher taxes to fund the highway project, which points out the ______ the project.
   a) resources used in
   b) opportunity cost of
   c) marginal benefits of
   d) rationing device used in

7. Through war, many of the factories in country 1 are destroyed and many of its people are killed. As a result, the country’s
   a) production possibilities frontier (PPF) after the war is probably farther away from the origin than its PPF before the war.
   b) PPF after the war is probably closer to the origin than its PPF before the war.
   c) PPF after the war is probably the same PPF as before the war.
   d) ability to produce goods and services has increased.
8. If the tradeoff between goods X and Y increases as more of good X is produced, the PPF between the two goods is
   a) a downward-sloping straight line
   b) circular
   c) an upward-sloping curve
   d) a downward-sloping curve that is bowed outward.

9. Consider two points on the PPF: Point A, at which there are 10 apples and 20 pears, and point B, at which there are 7 apples and 21 pears. If the economy is currently at point A, the opportunity cost of moving to point B is
   a) 1 pear
   b) 7 apples
   c) 3 apples
   d) 21 pears

10. The increased production of lamps comes at constant opportunity cost in terms of bookshelves. This means
    a) that it takes more resources to produce a lamp than a bookshelf.
    b) that it takes fewer resources to produce a lamp than a bookshelf
    c) that for every lamp produced, the same number of bookshelves is forfeited.
    d) that for every lamp produced, a different number of bookshelves if forfeited.

11. An economy exhibits productive efficiency if it produces
    a) more than enough food to feed everyone.
    b) more goods and services in each successive year.
    c) maximum output with given resources and technology.
    d) enough output so that no one lives in poverty.

12. In this exhibit, a movement from point B to point A is
    a) currently impossible, because the economy could not have been at point B in the first place, since it lies to the right of the PPF.
    b) movement from a productive efficient point to a productive inefficient point.
    c) a movement from a productive efficient point to another productive point.
    d) a movement from a productive inefficient point to another productive inefficient point.

13. In the exhibit to the right, if PPF 1 is the relevant production possibilities frontier, society can choose points that lie only
    a) below PPF 1
    b) Below or on PPF1
    c) on PPF 2
    d) None of the above

14. One major reason for the law of demand is that
    a) one price changing requires at least one other price to change in the opposite direction.
    b) people substitute relatively lower priced goods for relatively higher priced goods.
    c) a higher price never reduces quantity demanded by enough to lower total revenue.
    d) people are willing to produce more units at a higher price.
15. If the workers of a firm successfully negotiate an increase in wages, which of the following is most likely to happen?
   a) The demand curve for the product the firm produces shifts rightward.
   b) The demand curve for the product the firm produces shifts leftward.
   c) the supply curve of the product the firm produces shifts rightward.
   d) the supply curve of the product the firm produces shifts leftward.

16. At a price above equilibrium price, there is
   a) a shortage.
   b) a surplus.
   c) excess demand.
   d) super-equilibrium.
   e) none of the above.

17. In the exhibit to the right, equilibrium price and quantity are
   a) $2 and 250 units
   b) $4 and 250 units
   c) $2 and 150 units
   d) $6 and 250 units
   e) none of the above

18. In the exhibit to the right, at a price of $2 there is a
   a) shortage of 350 units
   b) shortage of 200 units
   c) shortage of 150 units
   d) surplus of 200 units
   e) surplus of 150 units

19. In the exhibit to the right, which of the following would result in a movement from point A on D₁ to point B on D₂?
   a) a decrease in the price of a substitute
   b) an increase in the price of a compliment
   c) an improvement in production technology
   d) an increase in the number of buyers

20. In the example to the right, a movement from point W to point Z would most likely have been the result of?
   a) a price reduction
   b) an increase in population
   c) a decrease in business taxes
   d) an increase in the number of buyers
   e) a price increase
21. In the exhibit to the right, if an increase in the price of Good Y causes the demand for good X to shift from D1 to D2, goods X and Y are
a) normal goods
b) inferior goods
c) substitutes
d) compliments
e) neutral goods

22. Which of the following items is a final good?
a) mayonnaise in a restaurant
b) rubber purchased by a tire company
c) a watch purchased by someone in a retail store
d) a and b
e) a, b, and c

23. When supply increases and demand decreases at the same time then equilibrium price _______ and equilibrium quantity _______.
a) increases, decreases
b) decreases, increases
c) not enough information to determine, increases
d) decreases, not enough information to determine.
### Answers

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>1. c) scarcity</td>
<td>Definition of scarcity.</td>
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<tr>
<td>2. d) land</td>
<td>Definition of Land resources.</td>
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<td>3. a) positive economists always agree with each other.</td>
<td>Positive means dealing with facts, not agreeing.</td>
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<td>4. d) human behavior and choices as they relate to relatively small units.</td>
<td>Definition of Microeconomics.</td>
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<td>5. b) Yes, many will not buy the cd because they are unwilling to sacrifice other things they could buy.</td>
<td>This is an example of rationing.</td>
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<td>6. b) opportunity cost of</td>
<td>Opportunity cost is the cost of what they could be doing with that money instead, i.e. spending it.</td>
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<td>7. b) PPF after the war is probably closer to the origin than its PPF before the war.</td>
<td>Capital that is destroyed lowers the resources of the country.</td>
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<td>8. d) a downward-sloping curve that is bowed outward.</td>
<td>This is an example of increasing opportunity costs.</td>
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<td>9. c) 3 apples</td>
<td>The amount of apples given up in order to gain the pear.</td>
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<tr>
<td>10. c) that for every lamp produced, the same number of bookshelves is forfeited.</td>
<td>Definition of Constant Opportunity Cost</td>
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<td>11. c) maximum output with given resources and technology.</td>
<td>Definition of productive efficiency</td>
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<td>12. a) currently impossible, because the economy could not have been at point D in the first place.</td>
<td>PPFs show possible combinations. On the curve is most efficient, inside is inefficient, outside is unattainable.</td>
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<td>13. b) below or on the PPF</td>
<td>Definition of PPF. See above.</td>
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<td>14. b) people substitute relatively lower-priced goods for relatively higher-priced goods.</td>
<td>Substitute inferior goods.</td>
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<td>15. d) the supply curve of the product the firm produces shifts leftwards.</td>
<td>Increase in the cost of the labor means decrease in the amount of resources, lowered supply.</td>
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<td>16. b) a surplus</td>
<td>At a price above equilibrium, people buy less than suppliers wish to produce, causing a surplus.</td>
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<td>17. b) $4 and 250 units.</td>
<td>Find the point where Supply and Demand intersect.</td>
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<td>18. b) shortage of 200 units.</td>
<td>At a price of $2, suppliers wish to produce 150, Consumers wish to purchase 350. 150-350 = -200</td>
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<td>Question</td>
<td>Answer</td>
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<td>19.d) an increase in the number of buyers.</td>
<td>This is the only thing listed that shifts the demand curve to the right (increases demand).</td>
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<td>20. e) a price increase.</td>
<td>Movement along the curve is caused by a change in price.</td>
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<td>21. c) substitutes</td>
<td>Definition of a substitute (An increase in the price of a related good increases and causes an increase in the demand of good X)</td>
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<td>22. c) a watch purchased by someone in a retail store.</td>
<td>A and B are both capital goods (used to produce something else).</td>
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<td>23. d) decreases, not enough information to determine.</td>
<td>Draw 2 graphs in order to determine what the 2 shifts cause. Price Decreases, Quantity Increases, Decrease Decreases, Decreases Cannot be determined.</td>
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