Name ____________________

Answer questions 1-30 on your orange scantron sheet and the last two questions on the last page of this test booklet.

There are 32 questions and 44 possible points. Unless the question states otherwise, each question is worth one point. Some are worth more than one point though.
(1) [Chapter 5: Externalities; Homework 14] Externalities occur when a transaction between a buyer and seller impacts a ______ who was not part of the negotiation.
   a. Free-rider
   b. Third-party
   c. Innocent person
   d. Child
   e. None of the above

(2) [Chapter 5: Externalities; Homework 14] A scene in the movie *Bridesmaids* illustrates ____________.
   a. Free-riders
   b. Positive externalities
   c. Libel
   d. Quasimodo
   e. None of the above

(3) [Chapter 5: Externalities; Homework 14] Which of the following are possible solutions to negative externalities?
   a. Exert social pressure on free-riders
   b. Assign property rights so that there are no more free-riders
   c. Pigouvian taxes
   d. a, b, and c
   e. only a and b

(4) [Chapter 5: Externalities; Homework 14] True or false? When government responds to negative externalities with regulation, society overall will always be made better off.
   a. True
   b. False

(5) [Chapter 5: Externalities; Homework 14] What is the negative externality in eastern Oklahoma from this chapter?
   a. The well-being of hogs raised for meat
   b. Buildup of lead in soils used to raise vegetables
   c. Chicken manure runoff into surface waters (e.g., lakes, streams)
   d. Air pollution from excess plowing on cropland
   e. None of the above

(6) [Chapter 6.a.i: Opportunity Cost; Homework 15] What is the opportunity cost of an action?
   a. The various list of alternative actions one could have taken
   b. The few number of alternative actions an individual can contemplate when confronting any choice
   c. The least costly alternative
   d. The value of the next best alternative
   e. None of the above
(7) [Chapter 6.a.i: Opportunity Cost; Homework 15] A concert to see Panic! At the Disco, costs $40, but you value the ticket at $90. This means attending the concert provides you with $90 - $40 = $50 of value. At the same night you could see Kings of Leon for free, and you value that concert at $20. Which concert will you attend and what is its opportunity cost?

- a. You will see Kings of Leon, and the opportunity cost is $50.
- b. You will see Kings of Leon, and the opportunity cost is $90.
- c. You will see Kings of Leon, and the opportunity cost is $40.
- d. You will see Panic! At the Disco, and the opportunity cost is $0.
- e. You will see Panic! At the Disco, and the opportunity cost is $20.

(8) [Chapter 6.a.i: Opportunity Cost; Homework 15] A farmer can make $150, $130, and $120 dollars in profits for each acre of soybeans, cotton, and peanuts produced, respectively. If the profits from growing peanuts falls to $115, how does the opportunity cost of growing soybeans change?

- a. It rises by $5
- b. It falls by $5
- c. It changes, but we do not know how much
- d. The opportunity cost does not change

(9) [Chapter 6.a.i: Opportunity Cost; Homework 15] A farmer can make $150, $130, and $120 dollars in profits for each acre of soybeans, cotton, and peanuts produced, respectively. If the profits from growing peanuts rises to $135, how does the opportunity cost of growing soybeans change?

- a. It rises by $15
- b. It falls by $15
- c. It falls by $10
- d. It rises by $5
- e. The opportunity cost does not change

(10 Worth 2 Points) [Chapter 6.a.ii: Opportunity Cost and harvesting trees; Homework 15] Use the table below to answer this question. The value for this question in Table 1 is … Round to zero decimal places.

- a. $3,542
- b. $3,605
- c. $3,700
- d. $3,720
- e. None of the above

(11 Worth 2 Points) [Chapter 6.a.ii: Opportunity Cost and harvesting trees; Homework 15] Use the table below to answer this question. The value for this question in Table 1 is … Round to zero decimal places.

- a. $3,798
- b. $3,888
- c. $3,943
- d. $4,120
- e. None of the above
(12) [Chapter 6.a.ii: Opportunity Cost and harvesting trees; Homework 15] The optimal age to harvest the trees is ________ years.

a. 30
b. 31
c. 32
d. 33
e. 34

Table 1—The table below illustrates the rate at which a particular species of tree will grow if allowed to age. Assume that each ton of wood harvested yields a profit of $0.20 per ton per acre. Also assume that money may be invested safely at an interest rate of 8%, and any money from harvesting trees would be invested at this rate.

<table>
<thead>
<tr>
<th>Year</th>
<th>Age of stand in years</th>
<th>Tons per acre harvested if harvested in that year</th>
<th>Accounting profits (per acre) if harvested in that year</th>
<th>Accounting profits (per acre) if harvested in the previous year and the money was invested for one year at 8% interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>30</td>
<td>13000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>31</td>
<td>15400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>32</td>
<td>17200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td>33</td>
<td>18000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2024 34 18600 = _______ = _______

(13 Worth 2 Points) [Chapter 6.a.iii: Compound interest; Homework 15] Suppose you invest $100,000 for 9 years at a 6% interest rate. How much money will you have after nine years (what is the future value of this investment)? Round to zero decimal places.

a. 168,912
b. 153,893
c. 200,000
d. 220,000
e. None of the above
(14 Worth 2 Points) [Chapter 6.a.iii: Compound interest & Chapter 6.a.iv: Net Present Value and Opportunity Cost; Homework 15] Suppose you can pay $100,000 today for an investment that will return you $200,000 in ten years. If the interest rate is 10%, what is the net present value of $200,000 in ten years? Round to zero decimal places.

a. $60,008
b. $70,100
c. $77,109
d. 210,000
e. None of the above

(15) [Chapter 6.b: Value; Homework 16] How do economists define “value”?

a. The value of the second rate opportunity cost
b. The maximum amount of money one would pay for a good
c. Since happiness is subjective, there is no such thing as a “real value” of anything
d. The total experienced happiness, measured in utility

(16) [Chapter 6.b: Value; Homework 16] When grocery stores and the turkey industry make sure there is plenty of turkey on Thanksgiving, they are providing __________ utility/value.

a. form
b. time
c. place
d. possession

(17) [Chapter 6.c: General theory of prices; Homework 16] The general theory says that prices are determined by ______________, buyers’ value for the good, buyers’ and sellers’ relative negotiating power, and psychological and social considerations.

a. Time of sale
b. Place of sale
c. Possession of sale
d. Sellers’ opportunity cost
e. None of the above

(18) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] The supply curve slopes upward because the __________ cost of production rises the more sellers produce.

a. Quanted
b. Fixed
c. Transformative
d. Klepto
e. None of the above
(19) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] The intersection of the supply and demand curve is where the ______________ price and quantity are located.

a. Equilibrium  
b. Final  
c. Necessary  
d. Fair  
e. None of the above

(20) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] The marginal value of a good __________ the more of that good you have already consumed.

a. falls  
b. rises  
c. Stays the same  
d. Changes, but one can’t say whether it rises or falls

Figure 1—Use the following figure to answer questions 21-26
(21) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] In Figure 1, above, if price was not at the equilibrium of $14, and was instead at $12, there would be an excess __________, causing price to __________.

   a. Supply; rise
   b. Supply; fall
   c. Demand; rise
   d. Demand; fall

(22) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] In Figure 1, the formula for the supply curve is $P, MC = \underline{\phantom{20}} - \underline{\phantom{20}}(QD)$.

   a. 2; $\frac{1}{2}$
   b. 2; 2
   c. 20; -1
   d. $\frac{1}{2}$; 2
   e. None of the above

(23) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] Suppose that (in Figure 1) the demand curve intercept increased from 20 to 24. This represents a(n) __________ in demand, causing the equilibrium price to __________.

   a. Decrease; rise
   b. Decrease; fall
   c. Increase; rise
   d. Increase; fall
   e. None of the above

(24) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] Suppose that (in Figure 1) the demand curve slope changed from -1 to -0.5. This represents a(n) __________ in demand, causing the equilibrium price to __________.

   a. Decrease; rise
   b. Decrease; fall
   c. Increase; rise
   d. Increase; fall
   e. None of the above

(25) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] Suppose that (in Figure 1) the supply curve slope became a larger number. This represents a(n) __________ in supply, causing the equilibrium price to __________.

   a. Decrease; rise
   b. Decrease; fall
   c. Increase; rise
   d. Increase; fall
   e. None of the above
(26) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] Suppose that (in Figure 1) the supply curve intercept became a smaller number. This represents a(n) ________ in supply, causing the equilibrium price to ________.

a. Decrease; rise
b. Decrease; fall
c. Increase; rise
d. Increase; fall
e. None of the above

(27) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] If the price of cotton increases, how does the cotton supply curve shift?

a. It increases (shifts to the right)
b. It increases (shifts to the left)
c. It decreases (shifts to the right)
d. It decreases (shifts to the left)
e. The supply curve does not change

(28) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] If the price of pork rises, how does the demand curve for beef change?

a. It increases (shifts to the right)
b. It increases (shifts to the left)
c. It decreases (shifts to the right)
d. It decreases (shifts to the left)
e. The demand curve does not change

(29) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] A decrease in supply causes the equilibrium price to ________ and the equilibrium quantity to ________?

a. Fall; fall
b. Fall; rise
c. Rise; fall
d. Rise; rise
e. Stay the same; stay the same

(30) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] If the equilibrium price falls and the equilibrium quantity rises, this is caused only by a ________ in ________.

a. Decrease; supply
b. Decrease; demand
c. Increase; supply
d. Increase; demand
e. Muscle-man; Muscle-man
Page intentionally left blank. Use this page to show your math in answering questions 31 and 32.
The supply and demand curves for retail pork are...

Supply: \( MC,P = 90 + 0.000011(Q) \)

Demand: \( MV,P = 210 - 0.000020(Q) \)

Using algebra to calculate the equilibrium, the equilibrium price is \$\text{___________________ per cwt} and the equilibrium quantity is \$\text{___________________ cwt}. Round to zero decimal places. Show your work on the previous page for partial credit.

Graph the supply curve in Figure 3 below. Try and make it as linear as you can. There is no need to graph the supply curve beyond 12,000,000 of pork. Show your work on the previous page for partial credit.

Figure 2
(31 Worth 4 Points) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] The supply and demand curves for retail pork are...

Supply: \( MC_P = 90 + 0.000019Q \)

Demand: \( MV_P = 210 - 0.000028Q \)

Using algebra to calculate the equilibrium, the equilibrium price is $______________ per cwt and the
equilibrium quantity is $______________ cwt. Round to zero decimal places. Show your work on the previous page for partial credit.

(32 Worth 4 Points) [Chapter 7: Supply and demand; Homework 17, 18, and class worksheets] Graph the supply curve in Figure 3 below. Try and make it as linear as you can. There is no need to graph the supply curve beyond 12,000,000 of pork. Show your work on the previous page for partial credit.

Figure 2