Examination Instructions:
1) Answer the examination only after you have read the honesty pledge below.
2) The multiple choice section will be taken in WebCT and a tutorial for using WebCT is to be found at: [http://ruby.fgcu.edu/courses/nedwards/webct/](http://ruby.fgcu.edu/courses/nedwards/webct/).
3) The multiple choice section of the examination will be available for you to take from midnight, June 7 through midnight, June 16.
4) Answer the essay questions on the exam itself. Do not use an electronic format –there are too many graphs required.
5) Sign the Honesty Pledge below. Mail the essay section of the examination and the signed Honesty Pledge back to me at:

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Florida Gulf Coast University
College of Business
10501 FGCU Boulevard South
Fort Myers, FL 33965-6565

6) The mailing must be postmarked by June 15.
7) If you have any questions please email me at bhobbs@fgcu.edu
Honesty Pledge:
Distance Learning Examination for ECO 5005
Summer 2002 – CRN 50020

I have neither given nor received aid from any person on this examination. The work here is entirely my own. I understand that I can use the Thinkwell materials in an open book format.

________________________________________
print name

________________________________________
sign name
A____ 1. The main criticism of the kinked-demand curve model is that it does not explain how firms reach the original price/output at the kink
   A) True
   B) False

C____ 2. Demand is price inelastic if:
   A) The price of the good responds slightly to a quantity change.
   B) The demand curve shifts very little when a demand shifter changes.
   C) The percentage change in quantity demanded is relatively small in response to a relatively large percentage change in price.
   D) All of the above are true.

C____ 3. Consumer preferences, prices of other goods, income, and demographic characteristics are often termed:
   A) Market technologies.
   B) Demand prices.
   C) Demand shifters.
   D) Supply determinants.

A____ 4. A demand curve that is perfectly inelastic:
   A) Will be vertical.
   B) Will be horizontal.
   C) Will be upward sloping.
   D) Has an elasticity equal to 1 everywhere on the curve.

B____ 5. The market for breakfast cereal contains hundreds of similar products, such as Fruit Loops, Corn Flakes, and Rice Krispies, that are considered to be different products by different buyers. This situation violates the perfect competition assumption of:
   A) Many buyers and sellers.
   B) Identical goods.
   C) Complete information.
   D) Ease of entry and exit.

B____ 6. If steak and potatoes are complements, when the price of steak goes up, the demand curve for potatoes:
   A) Shifts to the right.
   B) Shifts to the left.
   C) Stays the same.
   D) Shifts to the right and then moves back.

C____ 7. A perfectly competitive firm's total revenue:
   A) Curve is a straight, downward sloping line
   B) Curve has a slope equal to marginal cost.
   C) Is found by multiplying price by quantity sold by the firm.
   D) Is always above its total cost.
C____ 8. A perfectly competitive firm is a _______; a monopoly is a _______.
   A) Price setter; price setter
   B) Price taker; price taker
   C) Price taker; price setter
   D) Price setter; price taker

A____ 9. Perfect competition is a model of the market that assumes a large number of buyers and sellers engaged in the purchase and sale of identical goods.
   A) True
   B) False

B____ 10. The statement that the minimum wage needs to be increased is a:
   A) Positive statement.
   B) Normative statement.
   C) Condition contained in the fallacy of false cause.
   D) Scientific conclusion based on marginal analysis.

B____ 11. An increase in supply, with no change in demand, will lead to _______ in equilibrium quantity and ________ in equilibrium price.
   A) An increase; an increase
   B) An increase; a decrease
   C) A decrease; an increase
   D) A decrease; a decrease

B____ 12. If a perfectly competitive firm sells 300 units of output at a market price of $1 per unit, its marginal revenue is:
   A) Less than $1.
   B) $1.
   C) More than $1 but less than $300.
   D) $300.

C____ 13. Which of the following is true?
   A) Since there are few firms that match the conditions assumed in perfect competition, the model is not very useful.
   B) The model of perfect competition is a good example of the old adage, "That's O.K. in theory, but not in practice."
   C) Although few world markets meet the assumptions of perfect competition, the model is useful in analyzing real world forces that affect prices and outputs.
   D) The model of perfect competition comes very close to describing the real world.

A____ 14. The shutdown point is where MC = minimum AVC.
   A) True
   B) False

D____ 15. In a competitive market, a change in price of a product
   A) Will shift long run average cost
   B) Will shift short run marginal cost
   C) Will shift short run average total cost
   D) Will cause movement along short run marginal cost curve
B ___ 16. The supply curve for the firm in perfect competition:
   A) Is the MC curve above the minimum of ATC?
   B) Tells the quantity produced at each price.
   C) Must result in a price greater than MR.
   D) Shows the outputs at which the firm makes an economic profit.

A ____ 17. Given that pizza is a normal good, if students' income at your college increases substantially, there would be:
   A) An increase in the demand for pizza.
   B) An increase in the quantity of pizza demanded.
   C) A decrease in the demand for pizza.
   D) No change in the demand for pizza.

C ____ 18. In the long run, all costs are:
   A) Fixed.
   B) Constant.
   C) Variable.
   D) Marginal.

C ____ 19. Which of the following is true regarding monopoly?
   A) Monopolies produce too much and charge too much from the standpoint of efficiency.
   B) Monopolies usually are economically efficient because they have economic profits with which to work.
   C) Monopolies produce too little and charge too much from the standpoint of efficiency.
   D) Monopolies create an efficiency problem but are not associated with an equity problem.

B ____ 20. Positive statements:
   A) Imply value judgments must be made.
   B) Are factual and can be tested.
   C) Deal with what ought to be.
   D) Are dealt with primarily in microeconomics.

B ____ 21. When the percentage change in quantity demanded is less than the percentage change in price:
   A) Demand is price elastic.
   B) Demand is price inelastic.
   C) An increase in price will result in lower total revenue.
   D) Total revenue will be zero at the midpoint of a linear demand curve.

A ____ 22. If marginal product is greater than average product, then average product must be rising.
   A) True
   B) False

B ____ 23. The property tax is a regressive tax.
   A) True
   B) False
C___ 24. Perfect competition is characterized by:
   A) Rivalry in advertising.
   B) Fierce quality competition.
   C) The inability of any one firm to influence price.
   D) Widely recognized brands.

C___ 25. Perfect competition assumes that information about a product and its price is:
   A) Widely shared among buyers.
   B) Widely shared among sellers.
   C) Widely shared among both buyers and sellers.
   D) Costless.

A___ 26. Product differentiation is a type of
   A) Non-price competition
   B) Price competition
   C) Collusion
   D) Price taking

C___ 27. The concept of elasticity is most closely related to:
   A) The equilibrium price.
   B) The equilibrium quantity.
   C) A movement along the demand curve.
   D) A shift in the demand curve.

B___ 28. A monopolist is not as good for society as a perfectly competitive firm because
   A) The monopolist does not sell the profit maximizing quantity
   B) Output is lower and price is higher than under competition
   C) Monopolist is inefficient
   D) The monopolist’s costs are higher than in perfect competition

A___ 29. If a firm in perfect competition sells 500 units of a product at $10 per unit, its marginal
   revenue per unit is $10.
   A) True
   B) False

C___ 30. In making decisions about factor mix, a firm is seeking to:
   A) Maximize output.
   B) Maximize profits.
   C) Maximize profits within its budget constraint, much like a consumer maximizes utility within a budget constraint.
   D) Do all of the above.
**Production Possibilities Schedule 1**

<table>
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<tr>
<th>Alternatives</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<td>24</td>
<td>18</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
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B____ 31. (Exhibit: Production Possibilities Schedule 1) If the economy produces 10 units of capital goods per period, it also can produce at most _______ unit(s) of consumer goods per period.
A) 5
B) 4
C) 3
D) 2

A____ 32. In perfect competition P = MC and in monopoly P > MC.
A) True
B) False

B____ 33. "Diminishing marginal returns," means that:
A) Each additional unit of an input used will decrease output.
B) Each additional unit of an input used will increase output, but by smaller and smaller amounts.
C) Each additional unit of an input used will increase output by larger and larger amounts.
D) The firm is maximizing profit.

C____ 34. Economists know that a particular good can be classified as an inferior good if a (n) _______ in buyers' income causes a (n) _______.
A) Increase; increase in demand
B) Increase; increase in quantity demanded
C) Increase; decrease in demand
D) Decrease; decrease in demand

B____ 35. The total product curve indicates the quantity of inputs needed to produce a given level of output.
A) True
B) False

A____ 36. Firms seek to use factors in the most efficient way in order to maximize profits.
A) True
B) False

A____ 37. Game theory is an analysis that provides insight into the behavior of firms in oligopoly.
A) True
B) False
A____ 38. The sum of fixed and variable costs is:
   A) Total cost.
   B) Marginal cost.
   C) Variable cost.
   D) Average cost.

B____ 39. Profit maximization for a monopoly firm is where P = MC.
   A) True
   B) False

B____ 40. The primary difference between a change in demand and a change in the quantity demanded is:
   A) A change in demand is a movement along the demand curve and a change in quantity demanded is a shift in the demand curve.
   B) A change in quantity demanded is a movement along the demand curve and a change in demand is a shift in the demand curve.
   C) Both a change in quantity demanded and a change in demand are shifts in the demand curve, only in different directions.
   D) Both a change in quantity demanded and a change in demand are movements along the demand curve, only in different directions.

B____ 41. In a kinked demand curve model, the demand curve at prices greater than the kink is ______________; but the curve below the kink is ______________
   A) Inelastic; elastic
   B) Elastic; inelastic
   C) Elastic; elastic
   D) Elastic; perfectly inelastic

D____ 42. A firm becomes more capital-intensive when it:
   A) Reduces the ratio of output to capital.
   B) Increases the ratio of output to labor.
   C) Reduces the ratio of capital to labor.
   D) Increases the ratio of capital to labor.

B____ 43. An increase in demand and a decrease in supply, will lead to a (n) _______ in equilibrium quantity and a (n) _______ in equilibrium price.
   A) Decrease; decrease
   B) Indeterminate change; increase
   C) Indeterminate change; decrease
   D) Increase; indeterminate change

B____ 44. A monopoly firm enjoys a _______ because it is protected by _______ from _______.
   A) Weak position; barriers to entry; competition
   B) Privileged position; barriers to entry; competition
   C) Position that always achieves economic profit; competition; new entrants into the industry.
   D) All of the above are true.
D____ 45. When an action by one agent harms another outside of any market exchange, there is a (n):
   A) Public choice.
   B) Tax incidence.
   C) Transfer payment.
   D) External cost.

A____ 46. The demand curve facing a monopolist is always:
   A) The same as the industry’s demand curve.
   B) Perfectly elastic.
   C) Unit elastic.
   D) Perfectly inelastic.

C____ 47. If: \( P_0 = 5 \), \( Q_0 = 120 \), \( P_1 = 6 \) and \( Q_1 = 84 \) the arc elasticity of demand will be approximately:
   A) 3.10
   B) 1.33
   C) 1.94
   D) 2.25

B____ 48. If a university decreases the price of tickets to football games in order to collect more revenue, it is assuming that the demand for tickets is:
   A) Unstable.
   B) Price inelastic.
   C) Price elastic.
   D) Unit price elastic.

A____ 49. The fundamental economic questions that every economic system must answer are:
   A) What, how, and for whom.
   B) What, why, and for whom.
   C) When, why, and for whom.
   D) How, when, and how much.

D____ 50. Market power exists when a firm is
   A) A price setter
   B) Able to determine output level for the entire market
   C) Able to influence market price of its good
   D) All of the above

A____ 51. Short Run cost curves are U-shaped due to:
   A) the law of diminishing marginal returns.
   B) the pricing of labor inputs.
   C) the initial over-utilization of fixed capital.
   D) the initial over-utilization of fixed labor.
B____ 52.  If a monopolist sells 100 units for $10 each unit and has an average cost of $8 per unit, what is the firm’s total cost.
   A) 1000  
   B) 800  
   C) 200  
   D) None of the above

D____ 53.  Because of monopoly, consumers typically have:
   A) Fewer choices.  
   B) Higher costs.  
   C) Lower quality.  
   D) All of the above.

A____ 54.  A price taker is a market participant who is able to accept or reject the market price but cannot alter it.
   A) True  
   B) False

A____ 55.  The principle stating that, for virtually all goods and services, there is a negative relationship between price and quantity demanded, all other things unchanged, is the law of:
   A) Demand.  
   B) Supply.  
   C) Scarcity.  
   D) Increasing costs.

A____ 56.  The assumptions of perfect competition imply that:
   A) Individuals in the market accept the market price as given.  
   B) Individuals can influence the market price.  
   C) The price will be a fair price.  
   D) The price will be low.

B____ 57.  A monopolist is a:
   A) Price taker.  
   B) Price setter.  
   C) Cost maximizer.  
   D) Quantity taker.

A____ 58.  An oligopoly is an industry dominated by a few firms.
   A) True  
   B) False

D____ 59.  The marginal product of labor is:
   A) The change in output resulting from a 1 unit change in labor.  
   B) The slope of the total product curve.  
   C) Positive at some levels of input and negative at others.  
   D) Described by all of the above.

B____ 60.  A monopolist will always be able to operate at a profit
   A) True  
   B) False
A____ 61. A monopoly is a market characterized by:
   A) A product with no close substitutes.
   B) A single buyer and several sellers.
   C) A large number of small firms.
   D) A small number of large firms.

D____ 62. The problem of scarcity is confronted by:
   A) Industrialized societies.
   B) Pre-industrialized societies.
   C) Societies governed by communist philosophies.
   D) All societies.

B____ 63. A progressive tax takes a lower percentage of income as income rises.
   A) True
   B) False

C____ 64. The production possibilities curve represents the fact that:
   A) The economy will automatically end up at full employment.
   B) An economy's productive capacity increases proportionally with its population.
   C) If all resources of an economy are being used efficiently, more of one good can be produced only if less of another good is produced.
   D) Economic production possibilities have no limit.

A____ 65. An example of a positive statement is:
   A) The rate of unemployment is 4 percent.
   B) A high rate of economic growth is good for the country.
   C) Everyone in the country needs to be covered by national health insurance.
   D) Baseball players should not be paid higher salaries than the president of the United States.

D____ 66. (Exhibit: Guns and Butter) The maximum amounts of guns and butter this economy can produce is:
   A) 18 units of guns and 0 units of butter per period.
   B) 0 units of guns and 20 units of butter per period.
   C) 16 units of guns and 12 units of butter per period.
   D) All of the above combinations are maximum possible combinations.
B____ 67. The Short Run market supply curve is constructed by the horizontal summation of ______________ of the individual firms, ______________ the shut down point
   A) Marginal cost curves, below
   B) Marginal cost curves, above
   C) Average variable cost curves, below
   D) Average variable cost curves, above

A____ 68. Long run cost curves are always lower than short run cost curves because the firm has flexibility to change both capital and labor in the long run
   A) True
   B) False

C____ 69. The demand curve in monopolistic competition is:
   A) downward sloping and relatively inelastic
   B) horizontal
   C) downward sloping and relatively elastic
   D) the same as the demand curve facing the firm under pure competition

C____ 70. Suppose the MP of the last unit of capital hired equals 12 and the MP of the last unit of labor hired is equal to 16. If the price of capital is $8 per unit and the price of labor is $8 per unit, then the firm
   A) Is maximizing costs with this combination of factors
   B) Is maximizing profits with this combination of factors
   C) Should hire more labor and less capital to minimize its costs
   D) Should hire more capital and less labor to minimize its costs

A____ 71. If a firm in monopolistic competition is producing at a level of output where MC > MR and they are profit maximizing they should:
   A) increase production levels
   B) decrease production levels
   C) increase prices
   D) decrease prices

D____ 72. A key aspect of monopolistic competition is:
   A) horizontal demand curves facing each individual firm
   B) low barriers to entry
   C) product differentiation
   D) both B and C.

C____ 73. Over the long run the level of economic profits in a monopolistically competitive industry
   A) is low, but sustainable
   B) zero, due to regulatory pressures
   C) zero, due to entry
   D) is above “normal” economic profits
C___ 74. A Moral hazard may exist in a transaction when one party
   A) Has market power
   B) Is a monopolist
   C) Can take an unobservable post-transaction action that is potentially injurious to the
      other party
   D) Creates pollution with no cost to itself.

B___ 75. When a public project is considered by a simple majority vote
   A) the project will never be undertaken
   B) the project will be undertaken even if total costs exceed total benefit
   C) the project will be undertaken only if total benefits exceed total cost
   D) The intensity of voter turn out is always taken into account

A___ 76. For a market system to smoothly function property rights must be well defined and
   transferable.
   A) True
   B) False

A___ 77. A risk adverse person would probably purchase life insurance
   A) True
   B) False

C___ 78. The expected value of a gamble is
   A) The maximum potential payoff
   B) Equal to the amount wagered
   C) The average expected payoff if you repeatedly made the same gamble.
   D) Always less than the amount wagered

D___ 79. The true social cost of an action is
   A) Private costs plus public costs
   B) Private benefits minus private costs
   C) External benefits minus external costs
   D) Private costs plus external costs.

A___ 80. Sunk Costs
   A) Are expenditures made in the past that cannot be regained no matter what is done
      now or in the future.
   B) Are a component of variable costs, but not fixed costs.
   C) Represent best available foregone opportunities and therefore the firm's managers
      should consider these costs when they are making current decisions.
   D) Can be avoided only if the firm goes out of business

Essay Section on the Next Page
Essay Section: To be returned by mail.

Name: ___________________________ Date: __________

Answer the following questions:

86. Public Goods are subject to two problems. Name and define each of them.
   
   ① Public goods are **non-excludable**, once provided and are hence subject to **free-rider problems**.
   
   ② Public goods tend to be overused due to "the tragedy of the commons."

87. "The government should provide goods such as health care, education, and highways because it can provide them free." Answer true or false and explain your answer.

   **FALSE, on two counts:**
   
   ① "The govt should" is a normative statement
   
   ② None of these economic goods or services are "free": They all require the use of scarce resources.
88. Walter is planning an Executive MBA program and in the discussions of pricing he states, "If the price were lowered from $40,000 to $35,000 the project would bring in more revenues." He is making an implicit statement about the value of the elasticity of demand – what is it?

The reduction in price on curve TR of the demand curve is elastic (figure A). Walter believes that the demand curve is elastic.

89. Walter is planning an Executive MBA program and in the discussions of pricing he states, "If the price were lowered from $40,000 to $35,000 the project would be more profitable." Taking your answer to question 88 to be true and correct, what is Walter's implicit assumption about the cost of adding students here? Do you think that his assumption is viable? Explain.

Lowering the price would increase the quantity demanded quite substantially (per figure A). This additional quantity will cause Walter to incur additional costs. Walter states that the project will be more profitable thus he is assuming that the additional costs will be less than the additional revenues.

I can buy into this assumption. Once you decide to run the program, the marginal cost to admitting one more student (MC) is very low. The course is already being taught and the "cost" of another student to the professor is the additional grading and tuition. (Note that the cost to the administrator (Walter) is even lower – this is one reason that FGCU will move to larger - and - larger classes over time. Also note that the revenues accrue to the administration.)

Once class capacity is reached however, the costs rise again. (This is why I predict that classroom size in the new academic building will increase dramatically - we will move towards large, lecture halls.)
90. Use supply and demand analysis. A complete answer will include both written and graphical analysis.

The home video market, including both rentals and purchases, increased 4.3 percent in revenue terms in 1999 for a total of $19.4 billion. Disney obtained 30 percent of the market with hits such as *Mulan* and *A Bug's Life*. Warner Bros. was second with 19 percent of revenues.

The DVD market grew much faster, from $416 million in 1998 to $1.5 billion in 1999. Time Warner outpaced Disney in DVD revenues. Sales of DVD movies are expected to reach $6.3 billion in 2002, while video sales (excluding rentals) are expected to bring in only $4.8 billion.

The growth in DVD sales will be promoted by an increase in DVD players from 4.6 million in 1999 to 25 million in 2002. Another influence is the fact that the sharp video and dynamic sound, among other things, lead owners of DVD players to buy an average of 22 DVD movies a year, while video consumers buy only six movies a year. Also, the price of DVDs is expected to fall steadily from $23.90 in 1998 to $19.91 in 2002, bringing it closer to the lower price of VHS movies. These trends are inducing film producers to issue more old and new films on DVD.


1. (a) Draw a diagram of the market for DVDs, showing the demand and supply curves and the equilibrium price and quantity.

![Diagram of market for DVDs with demand and supply curves](image)

1. (b) The number of DVD players possessed by consumers is increasing. Will this cause a shift in the demand and/or supply for DVDs? Illustrate these effects in part (a) show the effects, if any, on supply, demand, equilibrium price and/or equilibrium quantity. Clearly label all of your work.

Yes, the demand for DVDs will increase - they are a complement to DVD players. Given this alone, the price of DVDs should rise and the quantity sold should increase.
(c.) Consumers like the sound and picture quality of DVDs. How will this affect the equilibrium price and quantity of DVDs? Replicate the diagram in part (a) and then illustrate these effects on your diagram. Show the effects, if any, on supply, demand, equilibrium price and/or equilibrium quantity. Clearly label all work.

This would also cause the demand to increase as consumers substitute DVDs for other media formats due to sound and picture quality:

\[ P \uparrow \quad Q \uparrow \]

(d.) Movie producers are increasingly willing to issue films in DVD format. Replicate the diagram in part (a) and then illustrate these effects on your diagram. Show the effects, if any, on supply, demand, equilibrium price and/or equilibrium quantity. Clearly label all work.

An increased number of suppliers will shift the supply curve to the right:

\[ P \downarrow \quad Q \uparrow \]
2.) The price of DVDs is expected to fall over the next few years. Given what you have drawn in response to Question 1, how do you explain this phenomenon?

Though demand is increasing, the supply of DVDs is expected to increase at a more rapid rate. Part (c1d) alludes to one reason. Other reasons might include:

1) Increased competition pushing down prices
2) Distributors achieving economies of scale through increased production and distribution
3) Thinking about 8-track tapes, records, and cassettes - innovation leading to new competition!

3.) DVD consumers buy many more DVDs than video consumers buy videos. How would you explain this? Refer to the determinants of demand.

1) Rising real income over time
2) Tastes and preferences
3) Product differentiation (better sound & quality)
4) DVDs are complement to home stereo/video/entertainment equipment.
91. Firms operating in a purely competitive market and firms operating in monopolistically competitive markets are both driven to zero economic profits in the long run. Why?

Low barriers to entry

Compare and contrast the long-run equilibrium positions for firms operating in a purely competitive market and firms operating in a monopolistically competitive market. Use the graph below to illustrate the long-run equilibrium positions for each market.

Under pure competition, the price is driven to the minimum AC over the long run. Under monopolistic competition, the long-run price will be higher than it would be under pure competition. This is the "cost" of product differentiation. The quantity produced will also be slightly lower.

Many markets are monopolistically competitive. Why do you think this is?

Consumers are willing to pay for product differentiation.