

Intermediate Microeconomics

Ec303-Summer '03
Makeup Exam 1

Part I – Please put your answers on the bubble sheet. Be sure to “bubble” your name in on the back side. 2 points each for a total of 80 points on this section.

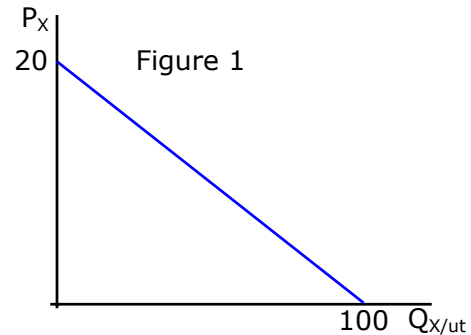
1. Economics is the study of
 - a. How business firms allocate resources to achieve optimal profits
 - b. How individuals can make money
 - c. The relationships of individuals and society to the built and natural environment in the allocation of scarce resources
 - d. The production of commercial wealth
2. When confronted with scarcity societies and individuals attempt to resolve the problems with
 - a. Technology
 - b. Social institutions
 - c. All the above
3. Epistemology is the
 - a. Use of technology to resolve issues of relative scarcity
 - b. A branch of economics that deals with the evolution and change of market structures
 - c. A study of the nature and limits of knowing
 - d. Use of science to improve the technology of production
4. The person credited with the notion of “falsification” as a means to increasing knowledge is
 - a. Thomas Kuhn
 - b. Karl Popper
 - c. Milton Friedman
 - d. Adam Smith
5. A general rule for optimization is, If
 - a. $MC > MB$, do it!
 - b. $MB < MC$, do it!
 - c. $MB > MC$, do it!
 - d. $MB < MC$, don't do it!
6. Normative issues in economics involve
 - a. A judgment about what should be
 - b. A subjective valuation or process of valuation
 - c. Decisions about what one should do
 - d. All the above
7. A change in the quantity purchased of a good (X) that is caused by a change in the price of the good (X) ceteris paribus is referred to as
 - a. A change in quantity demanded
 - b. A change in demand
 - c. A shift of the demand function
 - d. All the above
8. The primary objective of an economic system is to
 - a. Maximize wealth in business activities
 - b. To optimize the welfare or well-being of the members of society
 - c. Maximize the output of all goods
 - d. Insure that businesses can be profitable enough to remain in operation

9. The basic or fundamental allocation questions in economics include
 - a. What is the price to maximize sales? What is the output level to maximize profits?
 - b. Is advertising desirable in a market? What is the optimal level of advertising?
 - c. What to produce? How much should be produced? Who should get the output?
 - d. What is the appropriate money supply to keep interest rates at a minimum?
10. "Microeconomics" has several other names. Sometimes microeconomics is called
 - a. neoclassical economics
 - b. price theory
 - c. both of the above
11. The Instructor argues that theory can be used to transmit values and beliefs. Objectives most often held for theory (not just economic theory) are
 - a. Explain
 - b. Predict
 - c. Both the above
12. Theory can be thought of as
 - a. A ready made explanation that is universally applicable
 - b. A technical process that predicts events with great accuracy
 - c. A set of rules or a map that guides our analysis in organizing data to help us ask and answer questions
 - d. A waste of time and unnecessary
13. One of the key concepts that are used in economic analysis is "opportunity cost." Opportunity cost exists because
 - a. Every thing has a market price measured in monetary units
 - b. The balance sheet must balance
 - c. The existence of relative scarcity requires choice
 - d. All the above
14. Opportunity cost must include
 - a. Only dollar costs
 - b. Both implicit and explicit costs
 - c. Only those costs for which an actual cash outlay is made
 - d. Accounting costs
15. Demand can be defined as "a schedule of quantities that buyers are willing and able to purchase at a schedule of prices during a specified interval of time *ceteris paribus* (other factors constant). In this form the demand can be stated
 - a. $Q_x = f(\text{Income}), ceteris paribus$
 - b. $Q_x = f(P_x), ceteris paribus$
 - c. $P_x = f(Q_x), ceteris paribus$
 - d. Demand = supply, *ceteris paribus*
16. If a demand schedule were $Q_x = 80 - 4P_x$, the quantity intercept is
 - a. -20
 - b. 20
 - c. 80
 - d. -4
17. Given $Q_x = 80 - 4P_x$, the change in the quantity purchased caused by a one dollar increase in price would be
 - a. -20
 - b. 20
 - c. 80
 - d. -4

18. The slope of the demand function $Q_x = 80 - 4P_x$, is
- $-\Delta Q/\Delta P$
 - 4
 - dQ/dP
 - The change in quantity (Q) that is caused by a change in price (P)
 - All the above

19. This demand schedule ($Q_x = 80 - 4P_x$) can also be expressed as
- $P_x = 20 - .25Q_x$
 - $P_x = -4 + 80Q_x$
 - $P_x = 80 - .25Q_x$
 - None of the above

20. In Figure 1, the demand equation can be expressed as
- $Q_x = 100 - 5P_x$
 - $Q_x = 20 - .2P_x$
 - $P_x = 100 - 5Q_x$
 - $P_x = 20 - 5Q_x$



21. The determinants of demand include
- Supply of the good
 - Prices, incomes, preferences
 - The number of sellers in the market
 - All the above
22. A change in demand could be the result of
- A change in supply
 - A change in the price of the good
 - A change in incomes or preferences
 - All the above
23. A consumer's utility function is "transitive" if
- A is preferred to B and B is preferred to A
 - A is preferred to B and B is preferred to C and C is preferred to A
 - A is preferred to B and C and C is preferred to B
 - A is preferred to B and B is preferred to C and A is preferred to C
 - None of the above
24. In addition to the condition of transitivity, consumer's utility function must
- Rank various market baskets or be indifferent between market baskets
 - Have enough money to buy all desired market baskets
 - Consider only goods with increasing marginal utility
 - All the above
25. When considering a consumer's indifference curves for two goods with positive utility (and not perfect compliments or substitutes), the curves will
- Have a negative slope
 - Tend to be convex sets
 - Cannot intersect
 - All the above

26. When two goods (Q_X and Q_Y) are considered, the budget constraint
- Is determined by the consumer's preferences, the income (M) or budget and the prices of the goods (P_X and P_Y) considered
 - Can be written $M = (P_X + Q_X) \times (P_Y + Q_Y)$
 - is $Q_Y = \frac{M}{P_Y} - \frac{P_X}{P_Y} Q_X$
 - is $Q_Y = \frac{M}{P_X} - \frac{P_Y}{P_X} Q_X$
 - all the above

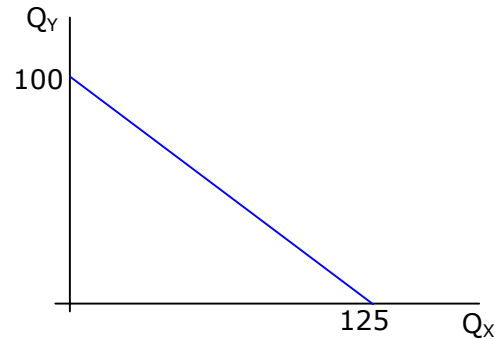


Figure 2

27. In Figure 2 a budget constraint is shown. If P_Y (the price of good Y) is \$5, What is the income or budget?
- \$100
 - \$125
 - \$400
 - \$500

28. In Figure 2 a budget constraint is shown. If P_Y (the price of good Y) is \$5, what is the price of good X?
- \$2
 - \$3
 - \$4
 - \$5
 - none of the above

29. In Figure 3 the original income is associated with the budget (or income) constraint RR' . A rotation of the budget constraint from RR' to RT' would be caused by
- an increase in income
 - a decrease in income
 - an increase in the price of good Y
 - an increase in the price of good X
 - a decrease in the price of good X

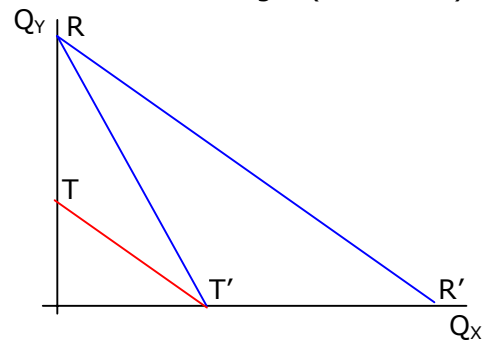


Figure 3

30. In Figure 3 the original income is associated with the budget (or income) constraint RR' . A shift of the budget constraint from RR' to TT' would be caused by
- an increase in income
 - a decrease in income
 - an increase in the price of good Y
 - an increase in the price of good X
 - a decrease in the price of good X

31. The "Marginal rate of Substitution" (MRS) can be perceived as the
- Slope of the budget curve
 - The rate at which an individual is willing to trade one good for the other (utility is neither increased or decreased)
 - Slope of the demand curve
 - All the above

32. The consumer will maximize their utility when
- The sum of the prices is equal to the slope of the budget constraint
 - The $MRS = -1$
 - $MRS = \left| -\frac{P_Y}{P_X} \right|$
 - $MRS = \left| -\frac{P_X}{P_Y} \right|$
 - none of the above

33. In Figure 4, given income (M), a price for good Y (P_Y) and the lowest price of good X shown in the graph (remember that the points along the X-axis are units that are calculated by M/P_X), the consumer will maximize utility by consuming market basket

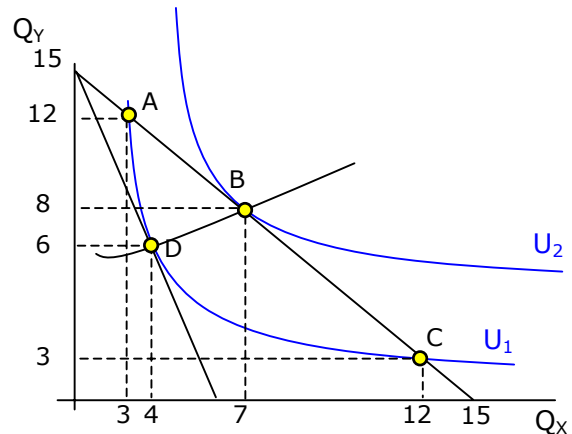


Figure 4

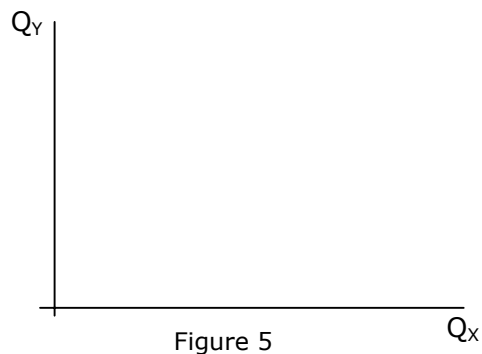
34. In Figure 4, the price of X increases the consumer will adjust their purchases to market basket
- $Q_Y = 12, Q_X = 3$
 - $Q_Y = 8, Q_X = 7$
 - $Q_Y = 6, Q_X = 4$
 - $Q_Y = 3, Q_X = 12$
35. Indifference curves are "convex" which illustrates that as more of good X is attained relative to the amount of good Y, the consumer has
- A decreasing MRS
 - A willingness to trade smaller and smaller amounts of the good on the vertical axis for given increments of the good on the horizontal axis
 - Both of the above
 - None of the above
36. The model of a demand function may be stated as $Q_X = f(P_X, P_Y, M, \text{preferences, \#buyers, ...})$
- True
 - False
37. The budget constraint is reflected in
- P_X, P_Y and M
 - The demand schedule
 - All the above
38. Indifference curves
- Tend to intersect when the consumer is in equilibrium
 - Tend to intersect when the consumer is maximizing utility
 - Both a and b above
 - Will not intersect if consumer's preferences are transitive

39. "Marginal" is a term used in economics to refer to
- The rate of change in a dependent variable caused by a change in some other independent variable
 - The slope of a line that represents a functional relationship between two variables
 - The first derivative of a function
 - All the above
40. Indifference curves are ignored or irrelevant beyond where their slopes are 0 or infinity because
- The price of the goods has increased to exceed the buyer's budget
 - At that point the good has 0 marginal utility and MU becomes negative as more units are added
 - At that point the good has 0 total utility
 - All the above

Part II - Please answer the questions in the spaces provided. Be sure your answers are legible. Points are attached to each question. You get two points if you follow the instructions on each section of the exam.

1) (5 points) Briefly explain what is meant by "rational" in the context of this course.

2) (3 points) In Figure 5, draw a set of indifference curves when the two goods are perfect complements. Label these curves C_1 , C_2 . Draw a set of indifference curves for two goods that are perfect substitutes; label these curves S_1 , S_2 .



3) (5 points) Identify the characteristics (at least 4) of a "normally shaped" set of indifference curves.

4) (5 points) From the time of Plato and Aristotle writers have speculated on the human condition. Economics has been an important part of this tradition. What has been the one major or "big" question that the observers of the social condition have tried to

answer.

5) (5 points) Briefly define what is meant by the "reservation price of the buyer" and the

"reservation price" of the seller.