Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Econ 301

**Exam 02**

* There are 110 possible points on this exam. The test is out of 100.
* You have one hour to complete this exam, but you should be able to complete it in less than that
* Please turn off all cell phones and other electronic equipment.
* You are allowed a calculator for the exam. This calculator cannot be capable of storing equations. This calculator cannot double as a cell phone.
* Be sure to read all instructions and questions carefully.
* Remember to show all your work.
* Recall basic logic. “Water is wet” is a true statement. “Water is wet and leopards have stripes” is a false statement.
* *Please print clearly and neatly.*

**Part I: Multiple Choice.** *Choose the best answer to the following.*

5 points each.

1. All points along an indifference curve have the same:
   1. Cost
   2. Utility
   3. Budget constraint
   4. A & C
   5. None of the above
2. When considering two goods, the slope of a budget constraint is:
3. The maximum amount of good Y you can buy with a given income
4. The ratio of two prices
5. Always negative
6. B & C
7. None of the above
8. A Giffen good:
   1. Has an upward sloping demand curve
   2. Is very elastic
   3. Has an income effect whose absolute value is smaller than its substitution effect
   4. A & C
   5. None of the above
9. We know the optimal point of consumption in consumer choice theory is when the indifference curve is tangent to the budget constraint. What is another way of saying this?
   1. When the marginal rate of substitution equals the opportunity cost.
   2. When the ratio of utility equals the marginal benefit.
   3. When the Lagrangian multiplier equals the ratio of prices.
   4. A & C
   5. None of the above
10. If Longshot Larry hits a bull’s-eye with is bow and arrow, he wins $40. Suppose Longshot Larry will hit a bull’s-eye with a 95% probability. Assuming Larry is risk neutral, what is the maximum amount Larry is willing to pay to try to hit the bull’s-eye?
11. $4
12. $10
13. $35
14. $40
15. None of the above
16. In which of the following ways is Type I errors different from Type II errors?
17. Type I errors waste more resources
18. Type I errors generate more risk aversion
19. Type I errors have a higher short-term expected value
20. B & C
21. None of the above
22. Something price consumption curve illustrates:
    1. When a good is normal
    2. When two good are complements
    3. When a good is a Giffen good
    4. A & C
    5. None of the above
23. Which of the following indifference curves are well behaved?
24. Y = U – X2
25. Y = U + X0.5
26. Y = U – 4X
27. B & C
28. None of the above
29. Which of the following have an MRS equal to 3?
    1. If ΔX = 1 and ΔY = -3
    2. If ΔX = 3 and ΔY = -1
    3. If ΔX = 1.5 and ΔY = -4.5
    4. A & C
    5. None of the above
30. Which of the following is an example of a Type II error?
    1. Approving a loan to someone who won’t repay the loan
    2. Hiring a slacker
    3. Not going to see a great movie
    4. A & B
    5. None of the above

**Part II: True/False.** *Answer true or false and justify your answer.*

10 points each.

1. When an income-consumption curve slopes up, the goods are substitutes.

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1. If two goods are instead bads, the indifference curve will slope down.

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1. Adding earmarked money (such as a college trust fund) always results in a corner solution.

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**Part III: Short Answer.** *Answer the following.*

15 points each.

1. Consider the following utility function: U = (XY)2; the following prices: Px = 3 and Py = 1; and the following income: I = 6. Using a Lagrangian, calculate how much of X and Y the consumer with this utility function determines. Remember to show all your work.
2. Use the following indifference curves to construct a budget constraint with an income of 36, price of silver is 2, the price of gold is 6. Indicate the quantities the person will buy. Then change the price of gold to 3, construct a new budget constraint and indicate this individual’s new consumption bundle. Given this price change, what is silver’s income effect compared to its substitution effect?

Silver (oz/

months)

2

4

6

8

10

12

14

16

20

2

4

6

8

12

10

18

16

14

20

Gold (oz/months)

18

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