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

Econ 280

**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 or other device.
* 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. Which of the following is an example of 2nd degree price discrimination?
   1. Coupons
   2. Buying one lets you get the second one at half price
   3. Buying in bulk
   4. B & C
   5. None of the above
2. What is 1st degree price discrimination also called (as in, another name for it, not an example)?
   1. Perfect price discrimination
   2. Bundling
   3. Tying
   4. A & B
   5. None of the above
3. Amos lives life on the edge: refusing to wear a helmet while driving his motorcycle, starting fights in bars, and poking bears with sticks. With this information in mind, which of the following would Amos likely enjoy?
   1. Juggling burning torches
   2. Buying insurance
   3. Gambling
   4. A & C
   5. None of the above
4. Suppose you flip a coin and get $100 if the coin ends up heads and you lose $50 if it comes up tails. What is the expected value of a coin flip?
   1. -$50
   2. -$25
   3. $25
   4. $50
   5. None of the above
5. I recently purchased a new laptop at Best Buy where I had the option to buy Microsoft Office for $100. However, I knew there was a chance I already had the Microsoft Office disks at home. If I didn’t, I would buy it online for, according to the salesperson, “a little bit more.” Suppose Office cost $125 online. If I was risk neutral and indifferent between these choices (buying it at Best Buy or buying online), what is the probability I have the disks at home?
   1. 0.20
   2. 0.25
   3. 0.75
   4. 0.80
   5. None of the above / There is not enough information
6. Which incentive structure doesn’t work well when one person is much better than others?
   1. Corporate culture
   2. Piece rate
   3. Pay for relative performance
   4. B & C
   5. None of the above
7. If a new hire discovers he can lessen his workload without penalty by exaggerating how long it takes to complete a project and starts doing so, this is an example of:
   1. Moral hazard
   2. Adverse selection
   3. Why firms monitor workers
   4. A & C
   5. None of the above
8. Which of the following contracts would the court consider enforceable?
9. One involving the sale of land neither party understood the true value of
10. One involving the hiring of an IT worker with a falsified résumé
11. One involving the delivery of a shipment of marijuana
12. A & B
13. None of the above
14. Which of the following scenarios would someone be considered contributory negligent?
    1. Jenny opens a can of soda and drinks it without inspecting the contents, resulting her swallowing a nail that was in the can. She sues the company.
    2. Steve thinks it would be fun trying to drive blind-folded. As a result of his blindness, he fails to see a construction warnings and he rams into a concrete barrier. He sues the city.
    3. Duala in a rush and misses the bus so she hops on her skateboard and grabs onto a car’s bumper. The car stops suddenly and she slams into it, hurting herself. She sues the driver.
    4. B & C
    5. All of the above / None of the above
15. In which of the following ways is Type I errors different from Type II errors?
16. Type I errors waste more resources
17. Type I errors generate more risk aversion
18. Type I errors have a higher short-term expected value
19. B & C
20. None of the above

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

10 points each.

1. The main reason why prediction markets work is because they make being right fun.

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1. It makes sense to not read books where the author adds a PhD after their name because he believes most PhDs have nothing interesting to say.

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1. The Learned Hand Rule encourages efficiency.

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

15 points each.

1. ***Briefly*** describe one of the cases that we used as an example of a contract rendered unenforceable. Which method of unenforceability does it demonstrate? Using efficiency grounds, why would we not want to enforce contracts like the one used in the case?

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1. The sci-fi show *Battlestar Galactica* (2003) opens with cylons—robots who became self aware—attacking the civilization of their creators. In the miniseries that begins the show, we discover cylons learned how to make human models. These models are virtually identical to human—physically, biologically, even emotionally—and use them as spies. The show revolves around the 40,000 survivors of the attack as they seek out a new home.

One of the characters, Gaius Baltar, invents a “cylon detector” to determine who is a cylon and who is not. We learn that there are four cylons amid the 40,000 survivors. Suppose Baltar’s detector has a sensitivity of 99.5% and a specificity of 99.9%. If you test positive as a cylon, what is the probability you actually are a cylon? (HINT: Use Bayes Rule.) Don’t forget to show your work.