

**EC337 – Economic Analysis of Legal Issues  
Spring 2013, Boston University**

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**Third Mid-term Practice Test**

Thursday, April 11, 2013

This is a 38-minute test. There is a total of 38 points allocated across two questions. Use the number of points allocated to each part as a suggestion for how long to spend on that part. I recommend that you attempt all parts before using more time than is suggested for any one part. If you complete some parts in less than the suggested time, use your extra time to revisit parts you may have had trouble with the first time through and to check your work.

Please read the questions carefully and write your answers in the blue booklets provided. Please follow my instructions at all times.

You only need to identify yourself with your BU ID on the blue booklets. You may keep this question sheet when the exam is over.

1. [24 points total, 5 parts] Suppose that drinks manufacturers use glass bottles to package their products. Occasionally, glass bottles become damaged during shipping, in which case tiny glass shards can become mixed with the drink. If a purchaser consumes a drink from such a damaged container, she will sustain an injury from the glass shards. Assume that 10% of drink bottles contain glass shards, so that, if neither party takes care, there is a 10% probability that a purchaser will be injured. The true damage suffered from such an injury would be \$8000. Purchasers/Plaintiffs (P) can reduce the probability of an injury occurring to zero if they always pour their drinks through a filter before consuming them, at a cost of \$200 (in time and effort). Drinks manufacturers/Defendants (D) can reduce the probability of an injury occurring to zero if they use stronger bottles, at a cost of \$600 (in increased production costs). All parties know this information with certainty.

a) [3 points] What is the efficient level of prevention, and what is the associated outcome? Explain briefly.

b) [5 points] Will efficiency be achieved if everyone knows that courts always apply the original Hand Rule when determining which party is at fault? Explain.

c) [5 points] Will efficiency be achieved if everyone knows that courts always apply the contributory negligence standard when determining which party is at fault? Explain.

d) [5 points] Will efficiency be achieved if everyone knows that courts always apply the pure comparative negligence standard when determining which party is at fault? Explain.

e) [6 points] Suppose that all drinks manufacturers believe that courts always apply the contributory negligence standard when determining fault, while all purchasers believe that courts always apply the original Hand Rule for this purpose. Will efficiency be achieved in the short run? In the long run? Explain.

2. [14 points total, 3 parts] Consider a hypothetical accident involving a driver and a pedestrian. If neither party takes care, the probability of an accident occurring at any given location at any given time is 10%. In the event that an accident occurs, the pedestrian/plaintiff (P) will suffer true damages in the amount of \$1000, while the driver/defendant (D) will suffer no damages. Suppose that, to independently reduce the probability of an accident to zero, drivers would have to install a sensor on their cars at a cost of \$80 each. Also suppose that, to independently reduce the probability of an accident to zero, pedestrians would have to buy special running shoes at a cost of \$120 each. Assume for now that all parties know this information with certainty.

a) [3 points] What is the efficient level of prevention, and what is the associated outcome? Explain briefly.

b) [5 points] Will efficiency be achieved if everyone knows that courts always apply the contributory negligence standard when determining which party is at fault? Explain.

c) [6 points] Now suppose that pedestrians have imperfect information about the probability of an accident occurring. Specifically, pedestrians believe that the probability of accidents is 15%. Drivers and courts know with certainty that the true probability is 10%, and are not aware that pedestrians believe otherwise. Now will efficiency be achieved if everyone knows that courts always apply the contributory negligence standard? Explain.