Final: Compsci 82

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Name: ____________________________

NetID/Login: ____________

Community Standard/Honor code acknowledgment (signature) ______________________________

Do NOT begin the exam until you are instructed to do so

You’ll be given prompts for four questions. For each question write a few sentences to a paragraph addressing the question. Answer the questions below the prompt.

Each answer will be graded on a 0-3 scale: poor, fair, good, excellent. Your final grade will be based on a combined score you receive on these questions and on the online final.

<table>
<thead>
<tr>
<th>Problem</th>
<th>value</th>
<th>grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem 1</td>
<td>3 pts.</td>
<td></td>
</tr>
<tr>
<td>Problem 2</td>
<td>3 pts.</td>
<td></td>
</tr>
<tr>
<td>Problem 3</td>
<td>3 pts.</td>
<td></td>
</tr>
<tr>
<td>Bonus</td>
<td>1 pts.</td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td>10 pts.</td>
<td></td>
</tr>
</tbody>
</table>

You are given four passages/quotes and a prompt for each. Answer the question raised in the prompt. For full credit be sure to address each point in the prompt. The prompts are on the first part of the exam, answer pages follow. The last question is worth only 1 point, the other questions are worth three points each.
PROBLEM 1: (Patent Nonsense)


While Red Hat has long worked to address the problem that software patents pose for innovation by promoting patent reform through legislative means throughout the world and submitting amicius briefs in important U.S. patent cases, we have also made clear that we have been developing a defensive patent portfolio to deter those not interested in the success of open source software from using their patents to attack Red Hat and the open source community. We believe that the possibility of a patent countersuit from Red Hat will dampen the enthusiasm of such competitors to open source software to use their patents aggressively against the open source community. With that goal in mind, we are pleased to learn that The Patent Board an independent company that regularly publishes a Patent Scorecard ranking the strength of the top 163 patent portfolios in the IT Industry, ranked Red Hat’s patent portfolio as the 50th strongest in the industry on March 11, 2011. This ranking reflects not only the growth in the number of patents Red Hat has obtained (now including 137 granted U.S. Patents), but also the quality of those patents.

Write one or two paragraphs in which you explain what a “defensive patent” is, why Red Hat opposes software patents, but still obtains them, and how both patents and copyrights are relevant to open source businesses like Red Hat.

PROBLEM 2: (Always Carry Protection)

The US Senate is currently debating a bill known as the PROTECT IP act, an acronym for Preventing Real Online Threats to Economic Creativity and Theft of IP (the House is debating a similar bill known as SOPA: Stop Online Piracy Act).

In writing against the bill, a group of engineers — including board members of ICANN and those who helped found the Internet — has written the following\(^1\) about the DNS filtering proposed in the legislation.

The U.S. Government and private industry have identified Internet security and stability as a key part of a wider cyber security strategy, and if implemented, the DNS related provisions of PROTECT IP would weaken this important commitment.

The DNS provisions [in the legislation] would undermine the universality of domain names, which has been one of the key enablers of the innovation, economic growth, and improvements in communications and information access unleashed by the global Internet.

The [technical DNS solution] envisioned …is inconsistent with security extensions to the DNS that are known as DNSSEC. The U.S. Government and private industry have identified DNSSEC as a key part of a wider cyber security strategy, and many private, military, and governmental networks have invested in DNSSEC technologies.

The DNS filtering would require ISPs to redirect DNS requests for the IP address associated with a government identified pirate-URL. For example, instead of returning 123.456.789 for http://pirate-stuff.com the ISP would return an IP address for a government announcement.

Write one or two paragraphs or two in which you demonstrate an understanding of DNS to show that the proposed legislation would likely do little to stop piracy and in which you demonstrate an understanding of the point-of-view taken by the Internet engineers.

PROBLEM 3 : *(Error, Page Not Found)*

A Bloomberg news article from December 12 says the following about electronic communication in Tunisia:

In Tunisia, Big Brother goes by an alias: Ammar 404.
Aided directly and indirectly by American and European suppliers, Ammar 404 took control of virtually all electronic communication in Tunisia and turned lives upside down – even changing the content of e-mails in transit. In this world, Tunisians of all stripes could never be sure if e-mails arrived as sent or at all, or who was reading them.

. . . Saadaoui, who has a master’s degree in computer science from Michigan State University, says he helped procure and set up the system that captured and changed e-mails. It uses a technique called deep-packet inspection, which peers into the content of communications and sends suspect e-mails to the Interior Ministry.

Write one or two paragraphs in which you demonstrate an understanding of what deep-packet inspection is, how it can be used to alter emails, and whether the un-named American and European suppliers are behaving ethically in selling computers and packet-sniffing routers to Tunisia.

PROBLEM 4 : *(From EULA to EULOGY)*

On October 6, 2011, Richard Stallman, the founder of the Free Software Foundation, wrote this on his blog:

Steve Jobs, the pioneer of the computer as a jail made cool, designed to sever fools from their freedom, has died.

As Chicago Mayor Harold Washington said of the corrupt former Mayor Daley, “I’m not glad he’s dead, but I’m glad he’s gone.” Nobody deserves to have to die – not Jobs, not Mr. Bill, not even people guilty of bigger evils than theirs. But we all deserve the end of Jobs’ malign influence on people’s computing.

Write a few sentences in which you demonstrate an understanding of why Richard Stallman uses the word “jail” and in which you provide your reaction to the quote above.
Problem 1: Patent Nonsense
Name ___________________________________________ and NetID __________

Problem 2: Always Carry Protection
Problem 3: Error, Page Not Found
Name ___________________________ and NetID ___________

Problem 4: From EULA to EULOGY