

Fundamental Concepts of Data Security

ISEC2001

Ethics

Question 1

What is the difference between laws and ethics?

Question 2

A multi-national software developer with centres in US and Asia is considering developing a policy regarding the ethical use of work resources for personal use. A policy developed for the centres in the US has been very effective and the intent is to use it for all the remaining centres. Explain why the policy developed in the US is unlikely to have the desired outcomes when applied to all centres.

Question 3

Two of the common claims made by hackers are outlined below:

- A hacker provides a very valuable service to the community because by successfully comprising the security of a system, the hacker is exposing problems with the security setup, problems which need to be addressed.
- There is no actual harm done because everything that a hacker does takes place in a virtual world.

Argue, with the help of examples, against the claims made by the hackers.

Question 4

An employee of a large company is dismissed after his Internet usage showed that he was downloading illegal software, which he was in turn using to do his work. In his defense, the employee claimed that the practice of downloading illegal software was common in his area and could prove that all his colleagues had done the same. Explain whether his defense addressed the ethical component of his behaviour and describe what you feel the company needs to do in terms of the illegal downloads issue, both from the point of view the employee's termination and the future behaviour of its employees. Justify your reasoning.

Question 5

A programmer, who was assigned as a sole person to work on an existing banking system, discovered a loopw hole that the system did not properly record small withdrawals from automatic teller machines (ATMs) around mid-night. This allowed a customer to withdraw small amount of money at a time

without affecting the account balance. The programmer did not inform the bank, but instead inserted his own scripts into the banking system to suppress the generated alerts. He then took a large sum of money by performing thousands of withdrawals over several years without being detected, until later when his code was identified and removed in a security audit.

- Identify and discuss three (3) ethical and/or legal issues in this example.
- Suggest three (3) actions that could have been done by the bank to prevent such an incident from happening.