

Fundamental Concepts of Data Security

ISEC2001/ISEC5006

Security Systems I

Question 1

Two of the key areas in security are data classification and security education. With the help of examples, explain why these particular areas are critical for security and describe at least two problems, for each area, that may arise if the security set-up does not take them into account.

Question 2

Explain why the current distributed nature of today's systems poses new security challenges.

Question 3

Most organizations are putting a lot of effort into having an Internet presence as it offers the potential to reach a very large number of potential customers with minimal cost. Describe in detail at least two major drawbacks of having an Internet presence from a security perspective.

Question 4

The introduction of mobile devices such as iPhones and Android tablets has changed the way in which organizations deal with security. Explain two ways in which such mobile devices compound the problem of keeping a system secure.

Question 5

Explain with the help of an example why old equipment can pose a major security problem for an organization.

Question 6

Consider the statement "*The availability of information has made system security a much more difficult task than in the past.*" Argue for and against the statement.

Question 7

What is the problem with an approach in which an organization is focused only on the business end and considers that information technology is solely the domain of the computer operators and system administrators?

Question 8

List six (6) components of an information system. For each component, give an example of a data security issue associated with it. Your answer must cover two (2) availability issues, two (2) integrity issues, and two (2) confidentiality issues and you must clearly indicate the type of issue.