Lecture 13:   Application Security and
Trust Management

QUESTION 1

a. What is the role of compression in the operation of a virus?
b. What is the role of encryption in the operation of a virus?
c. What are typical phases of operation of a virus or worm?
d. How does behavior-blocking software work?
e. In general terms, how does a worm propagate?
f. Describe some worm countermeasures.

QUESTION 2

a. What is a botnet?
b. What is a DDoS, and how can a botnet be used to mount a DDoS attack?
c. Describer two other attacks that can be executed with botnet.

QUESTION 3

a. What is a buffer overflow attack, and how can it be prevented?
b. What is an SQL injection attack and how can it be prevented?
c. What is a Cross-Site Scripting attack, and how can it be prevented?

QUESTION 4

a. Mention a type of Internet security problems that is not covered by the traditional
    definition of information security.
b. What is a reputation system, and in what way can a reputation system be
    considered a security mechanism?
c. What is the difference between PageRank and SERP rank? Which of these
    depend the most on the random-surfer model?