

CMSC 466/666
E-Commerce Technology
Homework-3&4
Due on 14/04 in class

(All materials must be typed)

Q1. Security is of prime concern for ecommerce environment. All ecommerce services that compose an overall secure framework can be segmented into 5 main topics,

- Authorization
- Authentication
- Confidentiality
- Integrity
- Nonrepudiation of origin

Explain briefly each of these topics? Do you think this set of 5 segments covers all the issues for secure ecommerce? Are there any other issues too? If any then mention them. (25 points)

Q2. Digital signatures are of great importance for various ecommerce activities. Consider a bank customer instructs the bank to buy some stock for him by sending an email message .An hour after the order has been received and executed, the stock crashes. Now customer denies that he ever send an email. The bank can produce email but the customer can claim that bank forged it in order to get a commission. The only way for judge to know the truth is some kind of signature?

Explain the concept and algorithm behind the digital signatures?

No extreme details of algorithm are important, but the crux should be explained.

What do you think will digital signatures work in real world? Is it being used currently? If yes then where? (25 points)

Q3. Explain in brief the motivation behind Bluetooth Technology. Explain the page and inquiry procedures in Bluetooth that allow Ad-hoc connectivity. (devices in close proximity identifying and establishing connections automatically) (25 points)

Q4, Explain the concept of Semantic Web? Explain how XML, RDF and DAML fit in to realize the vision of semantic web? (25 points)

Q5, Explain Prisoner's Dilemma? Also what is dominant strategy equilibrium? Give its applications (prisoner's dilemma) to real e-commerce world? (25 points)

Q6. What are the major applications in Mobile Commerce? Give an example of each of them. (25 Points) (See "Recent Advances in Wireless Networking", IEEE Computer, June 2000)

Q7. What are the advantages of M-commerce and what are the limitations? (25 points)

Q8. What is WML? How is it different from HTML? (25 points)