UNIVERSITY OF LONDON

GOLDSMITHS COLLEGE

B.Sc. Examination 2002

COMPUTING AND INFROMATION SYSTEMS

IS 530013A (CIS323) E-Commerce

Duration 2 hours and 15 minutes

Do not attempt more than FOUR questions on this paper. Full marks will be awarded for complete answers to FOUR questions.

Electronic calculators may be used. The make and model should be specified on the script. The Calculator must not be programmed prior to the examination. Calculators which display graphics, text or algebraic equations are not allowed.

THIS EXAMINATION PAPER MUST NOT BE REMOVED FROM THE EXAMINATION ROOM

Question 1

(a) Describe the ways by which businesses use value chains to identify electronic commerce opportunities. Use at least one real world example.

[8 Marks]

(b) Describe four advantages and four disadvantages of using electronic commerce to conduct business activities.

[8 Marks]

(c) Define the following types of extranets: VPN, public network, and private network.

[5 Marks]

(d) What is the role of TCP/IP in a packet switching network such as the Internet? Include in your answer a diagram showing the TCP/IP architecture including the five protocol layers.

[5 Marks]

Question 2

(a) Describe the role of at least four protocols that are used to conduct commerce and communications across the Internet and that send and receive electronic mail.

[8 Marks]

(b) Describe two Internet utility programs that can be used to trace, locate, and verify the status of Internet host sites.

[5 Marks]

(c) Describe the differences between basic electronic commerce software and midrange electronic commerce software.

[5 Marks]

(d) Describe the Fundamental features and duties of a Web server.

[5 Marks]

(e) Discuss the features of Apache HTTP Server.

[2 Marks]

Question 3

    (a) Describe the key threats discussed in the course, to client machines, Web servers, and commerce servers.

        [5 Marks]

    (b) Describe the forms of active content that web pages may contain and their potential threats to electronic commerce businesses.

        [4 Marks]

    (c) How can an ActiveX control cause threats to electronic commerce web sites?

        [4 Marks]

    (d) How could the buffer in a Web server cause security threats?

        [4 Marks]

    (e) What is public-key encryption and private key encryption and how do they work?

        [4 Marks]

    (f) Describe the use of hash algorithms in electronic commerce security. Include in your answer how hash algorithms differ from public key or private key encryption?

        [4 Marks]

Question 4

    (a) Provide a detailed description of electronic data interchange. Explain why and how is it now being used by businesses on the Internet.

        [10 Marks]

    (b) What is Supply chain management? How are businesses using the Internet and Web technologies to improve their supply chain management?

        [10 Marks]

    (c) Describe how businesses can use virtual communities to increase brand awareness and sales.

        [5 Marks]

Question 5

    (a) Describe the steps in the use of electronic cash also state three disadvantages of electronic cash.

                [8 Marks]

    (b) Describe how Electronic wallets operate and are used. Include in your answer the differences between server-side electronic wallets and client-side electronic wallets?

                [8 Marks]

    (c) Describe the role of smart cards in electronic commerce.

                [5 Marks]

    (d) Describe the SET protocol and how it protects credit card transactions.

                [4 Marks]

END OF EXAMINATION