

External Programme

UNIVERSITY OF LONDON

External Programme

B.Sc. Examination 2004 (WESTERN)

COMPUTING AND INFORMATION SYSTEMS

(CIS323) E-Commerce

Duration 2 hours and 15 minutes

Do not attempt more than THREE questions on this paper. Full marks will be awarded for complete answers to THREE 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) Explain how online business can reduce transaction costs through using the Internet as a common communication infrastructure between customers and suppliers.
[7 Marks]
- b) Discuss how the concept of *value chains* can be used in electronic commerce as a technique for analysing a business or industry and for identifying opportunities for utilising electronic commerce methods and techniques.
[7 Marks]
- c) Describe electronic commerce in terms of creation and transmission of business information. Include in your answer a comparison of the two advantages and two disadvantages of using electronic commerce for selling goods and services to customers with its disadvantages.
[7 Marks]
- d) Describe the role of 'packet switching networks' in the development of the Internet and electronic commerce.
[4 Marks]

Question 2

- a) Describe in detail the notion of an "Effective Web Presence". Include in your answer the broad objectives that an organisation should aim to meet and the goals a business should achieve when creating an effective web presence.
[7 Marks]
- b) The critical elements of branding strategy are *product differentiation*, *relevance to the user* and *perceived value*. Describe each of these critical elements and suggest how the techniques of *rational branding* and *affiliate marketing* may be used to promote a business brand on the Web.
[8 Marks]
- c) Compare and contrast product-based and customer based marketing strategies when used to promote a company's electronic commerce Web Presence. In your answer explain how these strategies utilise marketing mix theory.
[6 Marks]
- d) Brands can lose their value if the environment in which they have been successful changes. Show how this is possible by giving an example.
[4 Marks]

Question 3

- a) Define what *virtual communities* are and describe how these communities are used by companies to help promote products and services and provide support to customers. Include in your answer a discussion on the notion of the intangible asset called stickiness.
[7 Marks]
- b) Discuss three broad categories of web auction sites that have emerged in this rapidly growing online business. Include in your answer an explanation of how each type of auction operates and any other auction-related services that are provided.
[7 Marks]
- c) Briefly explain the difference between public key encryption and private key encryption. List advantages and disadvantages of each encryption method.
[4 Marks]
- d) Compare two different types of connections for EDI that may be employed by businesses. Also describe the implications of open EDI as an electronic commerce channel for connecting businesses to customers and suppliers.
[3 Marks]
- e) Compare and Contrast Paper-based and EDI purchasing processes when used to interact with suppliers.
[4 Marks]

Question 4

- a) Compare web client/server communication using Two-tier, Three-tier and N-tier client server architectures.
[7 Marks]
- b) Compare and contrast three different Web server software programs in terms of the functionality they provide and cost.
[7 Marks]
- c) Compare and contrast the roles of “Middleware” and Application Servers when used to integrate web servers with a company’s back-end system.
[7 Marks]
- d) Describe the differences between basic electronic commerce software and midrange electronic commerce software in terms of the feature set they provide
[4 Marks]

Question 5

- a) Discuss in detail threats to the security of web server computers. Include in your answer database threats, programming threats and threats to the physical security of Web servers.
[7 Marks]
- b) Discuss in detail threats to the security of client computers. Include in your answer Active content, Cookies, Java applets, JavaScript and threats from ActiveX controls.
[7 Marks]
- c) Graphics, plug-ins, and e-mail attachments are the most common method for spreading viruses and malicious programs. Explain how these technologies are used to spread security problems.
[4 Marks]
- d) Explain how Steganography is used as a form of hiding information to increase security of data file transmissions.
[4 Marks]
- e) Explain the implications of integrity threats to data file transmissions.
[3 Marks]

END OF EXAMINATION