

**UNIVERSITY OF LONDON**

**GOLDSMITHS COLLEGE**

**B. Sc. Examination 2012**

**COMPUTING AND INFORMATION SYSTEMS**

**IS530013A(CIS323) E-Commerce**

**Duration: 2 hours 15 minutes**

**Date and time:**

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*There are five questions on the paper. Please answer three questions. Full marks will be awarded for complete answers to three questions. Candidates must not attempt more than the required number of questions. Calculators are not allowed.*

**THIS EXAMINATION PAPER MUST NOT BE REMOVED  
FROM THE EXAMINATION ROOM**

## QUESTION 1

### Scenario: InVest

*InVest is a fund for financing businesses across the world. The funds management team is made up of professional business people who are each specialists in a particular field of business. The InVest fund has normally funded traditional businesses in the manufacturing and raw materials sectors. After a recent management meeting it has been decided that the fund will look to invest in internet start-up businesses as although these are high risk investments they have the possibility of yielding high returns if successful.*

*One real concern InVest has is that many internet businesses in the late 1990s and early 2000s did not last. Often they appeared to have an interesting business model, but failed to generate significant revenue.*

*Many of the businesses that were started during this first wave of electronic commerce seem to be only in the western world, and concentrated their opportunities in quite small markets. Traditionally, InVest has dealt with businesses that wish to become global. They have a strong reputation for exploiting opportunities and discovering new areas of business. With recent developments in computing technology, InVest feels that the internet is finally a global channel. It recognises that the second largest internet market is China, and that internet technologies are longer constrained to English-speaking countries. Furthermore, the opportunity for businesses that they invest in to become global is increasing as fast internet access and mobile access becomes ever more prevalent.*

You have been hired by the InVest fund as a specialist in the area of electronic commerce. The management team wish you to write a management report addressing the following questions:

- (a) Compare and contrast the strategies that start-up businesses have taken during this second wave of electronic commerce, with those of the first. Specifically, you should address how start-up capital is raised, internet technologies are used, how revenue is sourced, what digital product strategies have taken, and online business strategies. For each strategy, provide a real-world example of how the strategy is realised.

[ 10 Marks ]

- (b) A significant difference between businesses proposed in the first wave of electronic commerce and those of the second is the reliance on revenue models rather than business models. This is particularly the case where proposals for dot-com businesses involve new business activities which were not previously conducted offline. Compare and contrast the difference between a business model and a revenue model in relation to an internet business which provides quotes for car insurance. In your answer, illustrate how merely having a business model may not necessarily lead to a successful business.

[ 5 Marks ]

- (c) The first start-up business proposed for investment with the InVest fund is Mums Cooking, a delivery service which provides home cooking to busy executives. The concept is very simple: there are many people who make excellent home-made cooking which they could deliver to people in their local area who do not have the time to cook for themselves. In order for InVest to understand how a business would work, create a value chain for the Mums Cooking start-up idea, including primary and supporting activities. Also create a swot analysis diagram for Mums Cooking so that all the issues related to it can be systematically considered.

[ 10 Marks ]

## QUESTION 2

### Scenario: Dcor Design

*Dcor Design is an internationally renowned quarterly magazine which provides detailed information to interior designers around the world. During the magazine's 50-year history, it has become the standard reference for many an interior designer. It has sections on renovations in progress and successfully completed projects. It contains essays by leading academics and its comments pages are seen as a major area for debate by those in the design industry.*

*Dcor Design has recently seen a drop in sales which, after examination, it has attributed to its lack of an internet presence. Furthermore, its leading competitor, Living Today, not only has an online version of its publication, but also a mobile application which allows people to record interior design ideas on their mobile devices and share them with a virtual community.*

*If Dcor Design is to make the transition online, it feels that this must be achieved by not cannibalising its print business. It is important that the online version not only offers its readers something different in terms of content, but also has its own unique revenue streams.*

You have been hired as an internet consultant to write a report proposing the following for Dcor Designs:

- (a) Compare and contrast the benefits and drawbacks of Dcor Design taking a digital content subscription revenue model, an advertising-supported revenue model, or a fee-for-transaction revenue model. For each model, explain the benefits and the drawbacks and provide an example of a real-world online business that uses each of that model.

[ 15 Marks ]

- (b) virtual communities have now been recognised as an excellent way for businesses to engage with potential and existing customers. The ability to interact with people in online forums, video walls and messaging centres gives businesses a unique way to form a meaningful dialogue online. It has been suggested that Dcor Design base its online presence on the concepts underpinning virtual communities. They wish to attract visitors to the site, use the virtual community to keep visitors on the site and to explore it, and by interacting with users, build a trusting relationship.

Summarise the important considerations Dcor Design should address in creating an effective web presence. Then propose 3 features for the Dcor Design website, which will not only attract customers to the site, but will also encourage them to return. Propose a further feature which will allow Dcor Design to gain knowledge from visitors on its site.

[ 10 Marks ]

### QUESTION 3

#### Scenario: Steven Thomas Antiques

*Steven Thomas Antiques is an international auctioneers and antiques company based in London. For over 100 years they have auctioned antiques to the public via an auction held once a month at their premises in Kensington. Although they have been very successful, Steven Thomas Antiques now wishes to harness the power of the internet in order to create a virtual antiques auction once a month. A particular attraction of the internet is the ability to segment the market for antiques and to offer tailored online experiences for buyers. Furthermore, there are possibilities for advertising on other websites related to the items which are up for auction. Such advertising can be used to drive potential buyers to the main auction site.*

*As well as creating a virtual auction once a month, Steven Thomas Antiques wishes to create an online shop. This will sell items at a fixed price to the public. In creating this website, Steven Thomas Antiques realises it is important to recognise that customer behaviour varies greatly, and that these variations will need to be reflected in the design of the site.*

For this question, you must use the information provided above in the scenario.

- (a) Compare and contrast product-based marketing strategies and customer-based marketing strategies in relation to the design of the new Steven Thomas Antiques auction site. In your answer, you should describe 3 characteristics of each marketing strategy, and how they could be realised on the site. Also make a recommendation as to which is most appropriate and why. Finally, identify 3 ways in which Steven Thomas Antiques auction site may increase the amount of trust people will have with the site. These can either be features, or design approaches.

[ 10 Marks ]

- (b) In order to promote the new virtual auction, you are asked to describe 5 ways in which Steven Thomas Antiques could advertise online to promote its forthcoming auctions. In your answer, you should include a discussion on the advantages and disadvantages of banners, virtual communities, search engines, site sponsorship and email marketing.

[ 15 Marks ]

## QUESTION 4

### Scenario: Digital Products and Services for London 2012

*In 2012, London will be hosting the Olympic Games. Millions of visitors will flock to the capital before, during and after the Games to enjoy the atmosphere and marvel at the once in a lifetime spectacle. For many visitors, it will be their first time in London and they will have little or no knowledge how to access its many sites.*

*The Olympic Games offers London a unique opportunity to promote itself online and via mobile devices. Whether it is through location-based services, specialist websites or iPhone applications, the possibilities are many.*

For this question, you must use the information provided above in the scenario.

- (a) You have been hired as an e-commerce specialist, to invent 5 digital products or services which London could offer visitors. Each proposal will need the following:
- (i) A description of the digital product or service, and why it is needed;
  - (ii) A set of business processes explaining how it would work;
  - (iii) A description of its potential users and how they would use it;
  - (iv) A revenue model for the digital product or service;
  - (v) A proposal for how to publicise the product or service.

[ 25 Marks ]

## QUESTION 5

### Scenario: Jeeves Solicitors

*Jeeves Solicitors is a family firm who practice contract law for businesses throughout the UK. For many years, correspondence has been the responsibility of its secretarial team and administrators. Two years ago, Jeeves Solicitors employed an Information Systems manager to create a computer network throughout the company, and to ensure that every partner and solicitor had a computer on their desk. Although the installation of the new network went smoothly, soon after problems began to arise. It was clear that several computers were behaving erratically, and possibly had viruses. Furthermore, at least one solicitor believed that information on his computer had been accessed by a third party.*

*Of particular concern are possible breaches of channel security when sending documents to their clients. Many important documents are sent by the firm on behalf of clients, and the firm's reputation could be severely damaged by such a security breach. Jeeves Solicitors would like to understand how encryption can be used to ensure channel secrecy when communicating with their clients.*

*Jeeves Solicitors have taken these breaches of security very seriously, and are now worried about what else could have occurred. In response to this, they have now hired you as a security specialist to write a report providing them with detailed advice on security, of both their desktop computers and intellectual property.*

For this question, you must use the information provided above in the scenario.

- (a) Using the scenario above, compare and contrast the various approaches to protecting client computers which are advised if a customer wishes to conduct business securely. Include in your answer a discussion on the use of cookies, approaches to monitoring active content and the use of digital certificates.

[ 15 Marks ]

- (b) Describe in detail the use of encryption in ensuring channel secrecy when providing customers with secure channels for communication. Include in your answer a comparison of public and private key encryption.

[ 10 Marks ]