

This paper is not to be removed from the Examination Halls

UNIVERSITY OF LONDON

279 0037 ZA

BSc degrees and Diplomas for Graduates in Economics, Management, Finance and the Social Sciences, the Diploma in Economics and Access Route for Students in the External Programme

Computer-based Information Systems

Monday, 22 May 2006 : 2.30pm to 5.30pm

Candidates should answer **FOUR** of the following **EIGHT** questions: **QUESTION 1** of Section A (40 marks) and **THREE** questions from Section B (20 marks each).
Candidates are strongly advised to divide their time accordingly.

PLEASE TURN OVER

SECTION A

Answer all **ten** questions from this section (40 marks in total)

1. WhiteCom is a supplier of fridges, cookers and other electrical goods for domestic use. It has about 250 employees and takes about 20,000 orders per year. Since 2001 the company has swiftly moved from being a high street seller with many shops to being a wholly on-line sales organisation operating the B2C sector. Their last shop closed in 2004. Specific investments have been made and new systems implemented to allow orders to be taken online and customers deliveries scheduled.

The company now generates orders in two ways. Some of its business (about 40% and rising) comes through its own web site where customers can browse information, obtain prices and availability, and place orders. The company also participates in a number of other online sales sites, typically sites which offer to find the cheapest price for a given product and then refer a customer on to the chosen supplier. Currently about 60% of WhiteCom's business comes through this route.

Once an order is taken the company's systems make arrangements for the items to be picked up from the manufacturers warehouse, and delivered directly to the customer. WhiteCom does not hold any stock of goods itself. This pick-up and delivery service is provided by one of several partner organisations who provide logistics. The WhiteCom system will prepare a detailed delivery schedule, including maps of both the pick-up and delivery location, telephone contacts etc. The careful attention that they pay to this order fulfilment process is one reason why they have maintained their reputation as a reliable and trustworthy source of goods.

As a result of their strategy the company now has two streams of business; the first from its own web site, and the second from the various other sites it is linked to. The business from its own site is by far the most profitable. Here people will search and compare goods, and make informed decisions on what they want but not based simply on price. Maintaining the quality of this web site, with good interactive features, costs a lot, but it has resulted in WhiteCom being increasingly recognised for its profession and reliable service. To support this customer centred approach the company has recently opened a live internet relay chat facility, to allow customers to make direct enquires to the company in order to gain more information about products and to solve everyday and administrative problems with their orders.

So far the company has developed its new information systems based on standard software packages and industry standards for data interchange. Both technically and organisationally this has been a complex project needing extensive support from consultants. The company is very pleased with its success at managing a major change programme and the benefits it has delivered and are now considering setting up a spin off company to provide consultancy and software services to other companies making the transition to e-commerce.

(question continues on next page)

- (a) Briefly explain what is B2C e-commerce and give two examples of industries **other than electrical goods** where it has been successful.
- (b) WhiteCom now has two parallel systems in place that generate orders. What problems do you envisage this poses for the company?
- (c) Suggest two main considerations that need to be taken into consideration while establishing the operational relationships between WhiteCom and the various other sales web sites.
- (d) The live web chat support system has required a reorganisation of the company's sales office. Explain what benefits it could expect from such a system and why this might have required a reorganization?
- (e) Suggest **two** ways in which the new business model has allowed the company to ensure that it is able to attract customers and maintain the volume of orders it receives.
- (f) Some of the company's managers want to stop using the links to other sales sites, citing the low profitability of the sales generated from this source. Would this be feasible or desirable?
- (g) WhiteCom claims to have been able to survive in a very competitive market by the strategic use of information technology. Using Porter's model suggest what particular areas of the business they have addressed through the technology.
- (h) A typical order with all the associated information including time for pick-up and delivery, amounts to about 50K bytes of data. If the connection speed between the company and the delivery firm operates at 100kbs how long will it take to send the information to delivery company? State any assumptions or limitations in your answer.
- (i) The company has made use of consultants during its reorganisation of its business and to support the installation of new systems. Suggest **two** areas which it may have been sensible to seek such external support and explain why?
- (j) The WhiteCom managers now see the potential to generate extra income by selling their services to other companies. Explain the strengths and weaknesses of this strategy.

PLEASE TURN OVER

SECTION B

Answer **three** questions from this section (20 marks each)

2. (a) What is a management information system? Identify the basic concepts underling the development of such systems. **(10 marks)**
(b) What differences would you identify between a management information systems and a decision support system? **(10 marks)**
3. (a) What is an information systems strategy? What essential elements would you expect such a strategy to contain? **(10 marks)**
(b) Give **two** ways in which an information systems strategy could be linked to an overall business strategy. Use examples in your answer. **(10 marks)**
4. (a) Information systems projects are notorious for taking too long and going over budget. What can IS managers do to prevent this? **(10 marks)**
(b) Explain the assumptions that lie behind the life cycle approach to IS development. Why might it not be the best approach to chose for some systems development efforts. **(10 marks)**
5. (a) What is knowledge work and what are the main characteristics of knowledge workers? **(10 marks)**
(b) What information systems might be developed to support knowledge workers and knowledge work? **(10 marks)**
6. 'Most of the talk on e-commerce is about B2C systems, but the real innovation, and the real pay back for most companies is found in B2B. It is in this area that the potential for efficiency savings and organisational restructuring is most profound. It is also the area of the greatest risk.' Critically discuss this view.
7. (a) Do information systems and new information technologies have substantial consequences for the size and structure of business organizations? **(10 marks)**
(b) Provide **two** examples of theoretical perspectives that try to explain how ICT has such consequences. **(10 marks)**
8. Write a brief report for the Prime Minister of your country arguing in favour of an e-government project to support the issuing of drivers licenses and other documentation that vehicle owners need.

END OF PAPER