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UNIVERSITY OF LONDON

**279 0060 ZA
996 D060 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

Introduction to Information Systems

Monday, 22 May 2006 : 2.30pm to 5.30pm

Candidates should answer **THIRTEEN** of the following **SEVENTEEN** questions: **TEN** from Section A (40 marks in total) and **THREE** 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. Explain **two** ways in which a decision support system can help a manager, or a group of managers, make better decisions.
2. Explain **three** main functions of systems software (operating system) for managing the hardware resources found on a personal computer.
3. What is the function of a network protocol? Illustrate your answer with a relevant example.
4. A digital X-Ray taken in a hospital contains 500 Megabytes of data. How long would it take to transmit this X-ray across a national network operating at 2000 Mega bits per second? Answer in seconds and state any assumptions or limitations.
5. Explain why it is usually advised that companies purchasing packaged software (for example ERP packages) should do the minimum customization and if necessary adapt their own business activities to the way the package works.
6. What chart or graph would you choose in a spreadsheet package to compare month-by-month sales data in two separate years? Justify your answer.
7. Should a data model ever contain an n:m (many to many) relation? Show with an example how it could be turned into two 1:n relations.
8. Describe the purpose of transaction processing systems (TPS). What **two** key criteria would you use to judge the success of such a system?
9. Suggest **two** means we can use when producing software to ensure that it is reliable and meets users' needs.
10. Describe **two** different possible approaches for training a large number of users as part of the implementation of a new information system. Suggest when each approach would be appropriate.

PLEASE TURN OVER

SECTION B

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

11. “If we are not careful the introduction of computers into organizations can create over structured, boring and repetitive jobs. The socio-technical approach, with its emphasis on meeting the needs and desires of people for interesting and responsible jobs, is essential to get the most out of the potential of new information and communication technologies”. Discuss.
12. (a) Explain why, within the life cycle model of systems development, we need a phase of maintenance? **(10 marks)**
(b) Why is maintenance activity not usually considered to be very satisfying or high status work? What can systems developers and managers do to make the maintenance task easier, productive and more attractive? **(10 marks)**
13. (a) What is meant by the ‘data base approach’ to developing information systems? What other approaches are possible if the data base approach is not adopted? **(8 marks)**
(b) Describe the main advantages of this approach and the necessary steps and organisational arrangements that need to be made if it is to work. **(12 marks)**
14. (a) How would you distinguish a knowledge worker? Give illustrative examples of people who would fall into this category, and people who would not. **(10 marks)**
(b) What main characteristics and functionality would you expect to find in information systems developed to help knowledge workers to do their jobs? **(10 marks)**
15. (a) Explain **all** the specific kinds of information that a set of data flow diagrams can capture as part of systems analysis activity. **(10 marks)**
(b) Show, using an example, how a context diagram can provide an open-systems view of an information system within its environment. **(10 marks)**

16. To what extent does the implementation of new information systems have consequences for the structure of organizations and the ways in which people do their jobs? In your answer indicate some specific examples of how information systems and information and communication technologies create such effects.
17. The United Kingdom is about to issue for the first time individual identity cards for citizens, linked to a national data base. What arguments would you make in favour and against this new policy?

END OF PAPER

