

UNIVERSITY of LONDON

291 0319W

B.Sc. EXAMINATION 2006

for External Students

West Zone

COMPUTING AND INFORMATION SYSTEMS

**CIS 319 DECISION SUPPORT and EXECUTIVE
INFORMATION SYSTEMS**

Duration: 2 hours 15 minutes

Date and Time: Wednesday 10 May 2006: 2.30 - 4.45pm

There are FIVE questions on this paper.

*Do not attempt more than **THREE** questions. All questions carry equal marks and full marks can be obtained 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 that display graphics, text or algebraic equations are not allowed.

Candidates are advised that their answers to all questions will be greatly strengthened by the citing of examples either of their personal experience or from written sources. Full referencing of sources is not necessary; an indication of the nature of the source is all that is required.

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

1. Sprague has described a framework for the development of a Decision Support System (DSS) as incorporating "three levels of technology".
 - (a) Explain the meaning of this term and illustrate your answer with a practical example. [17]
 - (b) Describe any other parts of his framework that might be relevant. [8]

2. (a) Explain the function of a model based management system (MBMS) within a decision support system. [13]
 - (b) Describe the criteria developed by A. Geoffrion for assessing the quality of a MBMS and explain how his concept of Structured Modelling measures up to these criteria. [12]

3. A large firm, that uses several decision support systems (DSS), is thinking of introducing a group decision support system (GDSS) in order to enhance company meetings.
 - (a) You are required to explain to senior management the differences between a DSS and a GDSS and the choices that management will have to make regarding the introduction of a GDSS. [20]
 - (b) Explain the counter arguments that management might use to oppose the installation of a GDSS. [5]

4. (a) Compare and contrast the different types of model that would be part of a decision support system (DSS) and an expert system (ES). [13]
 - (b) A commercial bank predicts the next year's rate of inflation and interest rates by using a simple model that merely averages out the past ten year figures and projects them in a straight line graph into the following year.
Explain how the introduction of an expert system component might improve the performance of such a simple model. [12]

5. The chief executive of a large multinational company is thinking of installing an Executive Information System (EIS). The company exports heavy lifting equipment all over the world. As a system analyst, you have been called in by the chief executive to discuss that part of the system incorporating a Multidimensional Database (MDDB).
Outline the questions you would put to the chief executive in relation to the MDDB and explain your reasons for the choice of questions. [25]

END OF EXAMINATION