

Ollscoil na hÉireann, Gaillimh
National University of Ireland, Galway

Summer Examinations, 2004/2005

Exam Code(s)	IBF1
Exam(s)	BF1 B.Sc (Business Information Systems)
Module Code(s)	MS105
Module(s)	Business Systems Analysis and Design 1
Paper No.	1
Repeat Paper	
External Examiner(s)	Prof. G. Philip
Internal Examiner(s)	Prof. S. Collins Mr. Eoin Whelan

Instructions: **Answer any FOUR questions**
All questions carry equal marks
Use a new page for each question

Duration	3 Hours
No. of Answer books	

Requirements:

Handout	
MCQ	
Statistical Tables	
Graph Paper	
Log Graph Paper	
Other Material	

No. of Pages	<u>4</u>
Department(s)	Accountancy and Finance – Management Information Systems

Question 1

- a. What is information systems analysis and design?
(5 marks)
- b. Describe the role of a systems analyst in the systems development life cycle (SDLC). Include in your answer the skills a successful systems analyst will require.
(10 marks)
- c. Discuss the role of Computer Aided Software Engineering (CASE) tools in systems development.
(10 marks)

Question 2

- a. Describe the time value of money. How does the discount rate affect the value of €1 today versus one year from now?
(5 marks)
- b. Define the following; tangible benefit, intangible benefit, tangible cost, intangible cost. With regards to an information systems project, give one example of each of these.
(10 marks)
- c. Identify and describe two commonly used economic cost-benefit analysis techniques. Ensure that you include any formulae in your answer.
(10 marks)

Question 3

- a. Describe two contemporary methods for determining system requirements.
(5 marks)
- b. Identify and describe the major participants of a JAD session.
(10 marks)
- c. When conducting a business process reengineering study, what should you look for when trying to identify business processes to change? Why?
(10 marks)

Question 4

- a. Identify and describe the main data flow diagramming symbols. Provide one example of each.

(5 marks)

- b. Convert the following information for a child vaccination and immunisation system from its textual format into a data flow diagram (DFD).

"There is a legal obligation upon local health authorities to provide facilities for vaccinating people against disease. Treatment normally commences when a child is one month old and registration of each child for their course of vaccination is initiated by the birth of the child.

The system operated by Mediserve Health Centre requires information from which it can produce a program of vaccination notification for the parents and the health centre staff. This information is obtained from the birth registration form. A consent form is completed by the health visitor and signed by the parent or guardian when visiting the child around the tenth day after birth. Protection is available against a variety of disease and parents may agree to all, none or some of the scheduled immunisations and vaccinations. If all are accepted, separate courses will be scheduled between one month and 16 years.

A diary appointment system must be maintained which notifies families at the appropriate time and checks that parents are not notified if treatment has already taken place or, more distressingly, if the child dies. The system must provide facilities for adding and deleting children to and from the vaccination program if they have transferred in or out of the health centre's area (or if they have died) and provide a record of completed appointments.

Doctors are paid for immunisations and the system facilitates automatic payment. "

(20 marks)

Question 5

- a. Define outsourcing. Describe three different reasons for outsourcing.
(10 marks)
- b. What methods can a systems analyst employ to verify vendor claims about a software package?
(5 marks)
- c. The management of Widgets Ltd have decided that the company needs a web presence. Describe three alternative design strategies (high, low & medium) which would allow the company to achieve this.
(10 marks)

Question 6

- a. What is a form? What is a report? Provide two examples of each.
(10 marks)
- b. When is highlighting a valuable technique?
(5 marks)
- c. Describe the process of designing interfaces and dialogues. What deliverables are produced from this process? Are these deliverables the same for all types of systems projects? Why or why not?
(10 marks)

Question 7

- a. Describe the process of coding, testing and converting an organisational information system.
(5 marks)
- b. Describe several factors that influence the cost of maintaining an information system?
(10 marks)
- c. Identify the four installation methods. Identify one positive aspect and risk associated with each.
(10 marks)