

**OLLSCOIL NA hÉIREANN
NATIONAL UNIVERSITY OF IRELAND, GALWAY**

AUTUMN EXAMINATIONS 2001/2002

**FIRST YEAR COMMERCE EXAMINATION
FIRST CORPORATE LAW EXAMINATION
(MS102) MANAGEMENT INFORMATION SYSTEMS**

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Time Allowed: **THREE** hours

Answer **QUESTION 1** from SECTION A
AND
any **THREE** questions from SECTION B.

All questions carry equal marks.

SECTION A

Question 1.

(This question consists of 20 multiple-choice questions, all of which should ideally be attempted. However, as incorrect answers score a negative mark you may choose not to attempt any question. Unanswered questions score a mark of zero). **Answers are to be written only on the 'MCQ Answer Sheet' provided, along with your examination details - do not write the answers to this section on the main examination paper.**

1. Good information systems design should result in systems with the following characteristics:

- a. they are flexible
- b. they are powerful
- c. they are capable of supporting individual and organisational processes of decision-making
- d. all of the above

2. Popular spreadsheet packages would qualify as DSS (Decision Support System) generators because:

- a. they have sophisticated data handling and graphic capabilities
- b. they can be used for "what-if" analysis
- c. DSS often display information in tabular format
- d. both a and b

3. Changes in organisational strategy, rules, and procedures often require:

- a. changes in the firm's information systems including software, hardware, data, and telecommunications
- b. changes in the tactics employed by the company's senior management
- c. an increase in the number of transaction processing systems developed by the firm
- d. involving the company's managers and employees in more participative decision making

4. Which type of network topology is controlled by a host computer?

- a. bus
- b. ring
- c. star
- d. token ring

5. A network technology that parcels data into fixed-length cells with very little error-detection or error-correction data bits, allowing data to be transmitted between computers from different vendors at any speed is called:

- a. multiplexing
- b. circuit switching
- c. asynchronous transfer mode
- d. packet switching

6. A common cause of system quality problems is:

- a. the inaccuracy of disk drives
- b. catastrophic failure of computer central processing units
- c. the inability to eliminate all bugs from complex software
- d. the lack of standard test routines

7. The following are all computer operating systems except:

- a. Unix
- b. Windows NT
- c. Javascript
- d. Mac OS X

8. System quality can be significantly enhanced by the use of:

- a. project management tools
- b. CASE tools
- c. system development tools
- d. all of the above

9. Success of an information system can be measured by:

- a. high levels of system use
- b. user satisfaction with the system
- c. financial payoff
- d. all of the above

10. The presence of duplicate data in multiple files is termed:

- a. data complexity
- b. data redundancy
- c. data file approach
- d. data confusion

11. A megabyte represents approximately:

- a. 1,000 bytes
- b. 1,000,000 bytes
- c. 1,000,000,000 bytes
- d. 1,000,000,000,000 bytes

12. A modern computer system consists of:
- a. central processing unit
 - b. input and output devices
 - c. communication devices
 - d. all of the above
13. The following are all part of major office activities, except:
- a. managing projects
 - b. doing personnel reviews
 - c. managing documents
 - d. communicating with individuals and groups
14. The function of software is to:
- a. manage the computer resources of the organisation
 - b. provide tools for human beings to utilise the computer resource
 - c. act as an intermediary between stored information and the organisation
 - d. all of the above
15. The purpose of strategic systems is to:
- a. increase the power of the C.E.O.
 - b. increase the power of middle managers
 - c. help local businesses overcome foreign competition
 - d. assure the survival and prosperity of the organisation
16. Processing:
- a. converts raw material into a more meaningful form
 - b. is the first of the information systems activities
 - c. transfers information to the people or activities where it will be used
 - d. none of the above
17. Unstructured decisions are those in which the decision maker must:
- a. provide judgment, evaluation and insight into the problem
 - b. execute repetitive analyses
 - c. discover a routine solution to the problem
 - d. establish a definite procedure for handling the problem

18. A computer's CPU is linked to primary storage by:

- a. data bus
- b. address bus
- c. control bus
- d. all of the above

19. Which of the following statements about prototyping is false?

- a. prototyping is valuable for the design of the end-user interface
- b. prototyping is appropriate for all applications
- c. prototyping encourages intense end-user involvement throughout the systems development life cycle
- d. prototyping is most useful when there is some uncertainty about defining requirements

20. From its early days until the present, computer technology changed according to the following progression:

- a. vacuum tubes to integrated circuits to transistors
- b. vacuum tubes to transistors to integrated circuits
- c. transistors to vacuum tubes to integrated circuits
- d. integrated circuits to vacuum tubes to transistors

SECTION B

Question 2.

"If organisations are to maximise the potential benefits of electronic commerce, those organisations must utilise the Internet and adopt an appropriate Internet business model".

Discuss this statement. In your answer, you should explain the term 'electronic commerce', discuss the relationship between the Internet and electronic commerce, and outline the various Internet business models currently in use by businesses.

(25 marks)

Question 3.

Outline and explain the differences between

- Applications software,
- Systems software, and
- Programming languages.

In your answer you should provide examples of each of the different types of software and/or programming languages.

(25 marks)

Question 4.

Give a descriptive account of **TWO** of the following:

- (i) The components, purposes, and goals of Executive Support Systems (ESS).
- (ii) Database models used in business for data storage and retrieval.
- (iii) The evolution and capabilities of computer hardware available to businesses, from the late 1970s through to 2002.

(25 marks)

Question 5.

"On a daily basis, organisations depend upon various networks and communication links to both enable and manage tasks necessary for successful business operation".

Discuss the above statement in light of the various network topologies that currently exist, and the various types of network that are available for organisational use. Your answer should include information on the following: the advantages and disadvantages of different network types, network complexities, transmission impairments in networks, and services offered by certain network architectures.

(25 marks)

Question 6.

When building a new information system, it is important that a number of activities are carried out in order to ensure a quality system.

Describe, in detail, the six stages involved in the traditional systems development lifecycle.

(25 marks)

Question 7.

Firms are rightly concerned with the security and quality of their information systems and data.

Describe, in detail, the main types of abuse and quality problems to which a system and data can be vulnerable.

(25 marks)