THE OPEN UNIVERSITY OF SRI LANKA

DEPARTMENT OF COMPUTER SCIENCE

B.Sc. DEGREE PROGRAMME 2024/2025

FINAL EXAMINATION

CSU5303: MANAGEMENT INFORMATION SYSTEM

DURATION: TWO HOURS ONLY (2 HOURS)

2nd May 2025	Time: 2.00 p.m. to 4.00 p.m.

This question paper consists of **six (06)** questions on **two (02) pages.**

Answer **FOUR** Questions **ONLY**. All questions carry **equal marks (each part carry 5 marks).**

Q1) The use of information systems with appropriate technologies helps organizations adapt to rapid changes in industries and markets.

   a) Define information systems and explain their key components within a business context.

   b) What are the three (3) core dimensions of information systems? Provide brief descriptions for two of these dimensions.

   c) Discuss the statement "Information systems and organizations influence one another".

   d) Briefly explain what a Decision Support System (DSS) is.

   e) Why do some DSSs need external information in addition to internal information?

Q2). The ERP (Enterprise resource planning) systems are crucial in managing both day-to-day operations and achieving long-term strategic objectives.

   a) Define how ERP systems work.

   b) What are the primary advantages of implementing an ERP system in an organization?

   c) Discuss the future of ERP systems with emerging technologies like AI, IoT, blockchain, etc.

   d) Describe wireless technologies that support communication in a digital enterprise.

   e) What is M-commerce? Briefly explain how it functions in the context of a modern business.

Q3) The formal unit that manages information technology services in an organization is generally referred to as the IT services department.

   a) What are the four (4) essential components of IT infrastructure necessary for operating information systems effectively?

   b) Name five (05) categories of information systems specialists in the IT services department who play a key role in managing IT services provided by a business organization.

   c) Evaluate and discuss the roles of five key categories of information systems specialists mentioned in part b) above, highlighting their impact on the organization's performance.

d) Briefly explain:
  i. Expert systems
  ii. Case-Based Reasoning (CBR)
  iii. Artificial Neural Networks (ANNs)

e) Briefly describe four (4) decision making activities: intelligence, design, choice and implementation.

Q4) Access control refers to the comprehensive set of policies, procedures, and technologies that a company implements to regulate who can access its systems, networks, and data.

a) Briefly explain with examples what is meant by authorized and authenticated.

b) What key guidelines and best practices would you establish for creating strong passwords to secure information systems?

c) What is the use of "Cookies" in electronic commerce websites?

d) What are the "Application controls" used in the software industry to deter misuse and minimize errors?

e) Briefly describe,
  i. Antivirus software
  ii. Encryption
  iii. Firewall

Q5). When introducing information systems, organizations typically make an effort to streamline workflows, optimize resource management, and enhance decision-making, ultimately driving overall growth and success.

a) What are the key steps involved in the systems development process?

b) Compare and contrast (distinguish) with examples the structured development methods and object-oriented development methods.

c) Briefly describe what Computer-aided software engineering is.

d) Provide five (5) challenges that organizations commonly encounter when implementing a global information system.

e) How do you overcome the challenges mentioned in part d) above while ensuring efficiency, security, and user satisfaction?

Q6). Modern business models capitalize on the Internet's advanced communication capabilities to enhance connectivity, collaboration, and customer engagement.

a) What are the major categories of Electronic Commerce and briefly describe two (2) of them?

b) Briefly explain the role played by electronic payment systems to enhance the success of e-commerce.

c) Name three electronic payment systems and describe two (2) of them.

d) Intellectual property is subject to a variety of protections under three legal traditions. Name these three (3) traditions. Briefly describe one (1) of them.

e) What are the five (5) key moral dimensions of the Information Age? Briefly discuss how they impact society, businesses, and individuals.