

**University of Ruhuna- Faculty of Technology**  
**Bachelor of Information and Communication Technology Honors Degree**  
**Level 1 (Semester I) Examination, June/July 2023**  
**Academic year 2021/2022**

**Course Unit: ICT1161, Fundamentals of Information Systems (Written)**

**Duration: 1.5 hours**

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This question paper contains 03 pages including this instruction page.

**IMPORTANT INSTRUCTIONS:**

1. The medium of this examination is English.
2. This is a Closed Book examination.
3. This Examination consists of **three (03)** questions that are given equal marks.
4. You must answer **all three (03)** questions in this examination.

- 1)
  - a) Differentiate **data** and **information** using an example.
  - b) List **five (05)** characteristics of valuable information.
  - c)
    - i) Define what is a Computer Based Information System (CBIS).
    - ii) Briefly describe **four (04)** components of a Computer Based Information System.
    - iii) Explain a suitable example related to a Computer Based Information System.
  - d) State, regional and national laws around the world had become a global challenge to maintain information systems. Justify this statement.
  - e) Explain the main characters related to the Globalization era 1.0?
- 2)
  - a) Define the term '**E-Commerce**'
  - b) List **four (04)** types of E-commerce and briefly describe **two (02)** of them providing suitable examples.
  - c) Describe the importance of supply chain management in E-Commerce?
  - d) Mobility is a common benefit that can be obtained from M-Commerce. Do you agree with this statement? Justify your answer.
  - e) Describe **five (05)** theft of M-Commerce.
- 3) Assume that, you are working as a project manager of a reputed software development company in Sri Lanka. Your company has received a new project to develop a banking system for a reputed private bank in Sri Lanka. They need to completely develop a new system to replace the existing banking system.
  - a) Identify all participants and their roles in the above system development.
  - b) Establishing objectives is an integral part in the system development process. Identify **three (03)** performance objectives and **three (03)** cost objectives in system development.
  - c) Briefly describe **five (05)** stages in System Development Life Cycle (SDLC).

- d) It is better to use an iterative approach to develop the banking system instead of using the traditional approach. Prove this statement by considering the development process of the banking system.
- e) Suggest **three (03)** suitable Database Management Systems (DBMS) to implement databases in the new banking system.
- f) Briefly describe **four (04)** advantages of using above mentioned DBMS in proposed system development.

.....**End of the paper**.....