



University of Kelaniya - Sri Lanka

Centre for Distance and Continuing Education

Faculty of Commerce & Management Studies

Bachelor of Business Management (General) Degree First Examination (External) – 2024

April/ May - 2026

BMGT E 18055 – Information Technology

Time: 03 Hours

Instructions

- **This is a three (03) hour examination.**
- **The paper consists of seven (07) questions. You are required to answer Five (05) questions only.**
- **Each question carries 20 marks. Total marks allocated for the paper is 100.**
- **The use of any digital communication device during the examination is strictly prohibited.**

Question No. 01

A medium-sized garment factory has implemented a computerized information system to manage their business operations. The management expects this system to improve the overall performance of the organization.

- a) Explain what an Information System is. List four (04) key operations that can be performed by the Information system in the above organization, explaining how each operation supports day-to-day operations.

(08 Marks)

b) Explain the difference between **data** and **information** with the help of two (02) examples in accordance with the above scenario.

(06 Marks)

c) Using the above scenario, explain how the computerized information system can help achieve any three (03) strategic business objectives.

(06 Marks)

(Total 20 Marks)

Question No. 02

a) Explain how the role and importance of information systems vary at the lower level, middle and top-level management levels of an organization. Provide suitable examples to justify your answer.

(10 Marks)

b) Although business information systems are associated with strategic benefits, their implementation within organizations presents several challenges. Briefly explain three (03) possible challenges in adopting information systems within organizations and propose effective solutions to overcome them.

(10 Marks)

(Total 20 Marks)

Question No. 03

A private educational institute recently faced several issues in its computer laboratory. Students complain that systems are slow, files sometimes disappear, unauthorized users access important data, and some students struggle to use certain computer because they are unfamiliar with the interface. The management plans to upgrade both hardware and software to improve performance and user experience.

a) Analyze the situation and identify two (02) possible hardware-related issues that may be causing these problems.

Explain your reasoning using the scenario.

(06 Marks)

b) Briefly explain the role of system software and application software. Explain using the scenario.

(06 Marks)

c) The institute is also considering improvements related to the operating system.

i. Compare GUI and CLI interfaces in terms of usability and their special features, for students in this lab, and justify which is more suitable.

(04 Marks)

ii. Describe how any two (02) operating system functions can help resolve the problems identified in the scenario.

(04 Marks)

(Total 20 Marks)

Question No. 04

A university plans to develop a database system to manage student records, course registrations, lecturer details, and examination results. Currently, data is stored in separate files, leading to duplication, inconsistency, and difficulty in retrieving information.

a) Explain the concept of a relational database and discuss how it would improve the current situation of this university.

(06 Marks)

b) As part of designing the new system, you are required to create a structured database.

i. Identify four (04) main entities relevant to the scenario.

ii. Describe the relationships between these entities.

(08 Marks)

c) What is the role of a Database Management System (DBMS) in this scenario. Explain how web-based databases could further enhance the system for students and staff.

(06 Marks)

(Total 20 Marks)

Question No. 05

An organization is planning to improve its workplace efficiency by introducing digital tools for documentation, data handling, and presentations.

- a) Explain how different office applications can be used to support specific business tasks such as reporting, data analysis, and communication. Provide relevant three (03) examples to justify your answer.

(06 Marks)

- b) Differentiate between temporary storage, permanent storage, and cloud storage in computers, and give two (02) examples for each storage category.

(08 Marks)

- c) List and explain three (03) benefits of storing files and documents when switching from a manual information system to a digital information system in the workplace.

(06 Marks)

(Total 20 Marks)

Question No. 06

An organization is strengthening its information security practices to protect its systems, data, and users. Consider the following statements related to security threats, authentication methods, and ethical use of information systems.

For each of the following statements, state whether you Agree or Disagree, justify your answer, and propose one (01) practical solution or strategy.

- a) Multi-Factor Authentication (MFA) provides better security than Two-Factor Authentication (TFA).
- b) Focusing mainly on technical controls is sufficient to ensure cybersecurity in organizations.
- c) Installing antivirus software alone is sufficient to protect an organization from cyber threats.

- d) Employee misuse of organizational data is a security issue rather than an ethical issue.
- e) Protecting any two (02) elements of the CIA triangle is sufficient.

(04 Marks each)

(Total 20 Marks)

Question No. 07

Write short notes on **any four (04)** of the following topics related to recent developments and future trends in computer technology:

- a) Open-sources software and its importance
- b) Local Area Network vs Wide Area Network
- c) Role of Artificial Intelligence in Business Operations
- d) Advantages and challenges of digital storage systems
- e) Impact of Mobile Devices on Workplace Productivity
- f) Green Computing and Sustainable Technology Practices

(05 Marks each)

(Total 20 Marks)