



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 1065 – 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 growing private hospital has introduced an integrated computerized information system to manage patient registration, doctor appointments, billing, laboratory reports, and communication with medicine suppliers. Previously, these activities were handled manually, causing delays, errors, and difficulties in decision-making.

- a) Explain what an Information System is. Using the given hospital scenario, list four (04) main components of an information system and explain each one briefly.

(08 Marks)

b) Explain the difference between data and information using the above scenario, and provide two (02) relevant examples.

(06 Marks)

c) Using the same scenario, explain how the hospital's computerized information system can help the organization achieve any three (03) strategic business objectives.

(06 Marks)

(Total 20 Marks)

Question No. 02

An educational institute is planning to upgrade its computer laboratory. Assume that you are appointed as the IT consultant of this institute. As an IT consultant, you are required to provide recommendations to improve system performance, usability, and security.

a) Recommend any three (03) hardware improvements that would enhance system performance in the lab. Justify your recommendations.

(06 Marks)

b) The institute is selecting software for the lab. Distinguish between system software and application software. List four (04) essential software required to run a computer lab.

(06 Marks)

c) The institute is also deciding on the operating system configuration.

i. Distinguish between GUI and CLI, and identify which interface is most suitable for students using the computer lab. Justify your answer.

(04 Marks)

ii. Name any two (02) functions of an operating system. Explain each function with an example.

(04 Marks)

(Total 20 Marks)

Question No. 03

An institute is planning to expand its operations by opening multiple branches in different cities while also improving communication within its head office.

a) Classify the most suitable types of computer networks for the following situations and justify your choice:

- i. Connecting computers within a single office building
- ii. Connecting several branches within the same city
- iii. Connecting branches located in different countries

(06 Marks)

b) Organizations invest in computer networks for various reasons. State five (05) main reasons why computer networks are essential for modern organizations?

(05 Marks)

c) The organization plans to expand its use of the Internet in its operations. Explain its importance in business operations and state two (02) potential risks associated with its use, suggesting an appropriate method to manage each risk.

(09 Marks)

(Total 20 Marks)

Question No. 04

a) *"It is acceptable for employees to use organizational information systems for personal purposes as long as it does not affect their work performance."*

Do you agree or disagree with this statement? Justify your answer with examples.

(08 Marks)

b) Describe the CIA triangle of information system security and how it ensures the security of shared information.

(12 Marks)

(Total 20 Marks)

Question No. 05

- a) Explain what is meant by a logic gate?
(04 Marks)
- b) Draw the symbols and write the truth tables for the following logic gates:
i. AND gate
ii. OR gate
iii. NOT gate
(06 Marks)
- c) State any (02) two practical applications of logic gates.
(04 Marks)
- d) Discuss the role of logic gates in real-world digital devices.
(06 Marks)
- (Total 20 Marks)**

Question No. 06

- a) Define a Database Management System (DBMS) and explain its main functions.
(06 Marks)
- b) Explain the following database concepts with examples:
i. Entity
ii. Attribute
iii. Primary Key
iv. Foreign Key
(08 Marks)
- c) What is meant by a *relational database*?
(02 Marks)

- d) State two (02) advantages and two (2) disadvantages of using a DBMS. Explain each one.
(04 Marks)
(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) Advantages and disadvantages of Cloud computing
 - b) Mobile computing and its advantages and disadvantages
 - c) Open-source software is always a better option than proprietary software for businesses.
 - d) Virtualization
 - e) Internet of Things (IoT)
 - f) Green computing and its use in modern day computing
 - g) Applications of Virtual Reality (VR) for improved value proposition in a business
- (05 Marks for each)
(Total 20 Marks)