



Index Number :

University of Kelaniya – Sri Lanka

Centre for Distance and Continuing Education

Faculty of Commerce and Management Studies

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

June – 2026

BMGTE 2055 – Business Information System

Time : 03 hours

Instructions

- The paper consists of Two Parts.
- Part I is compulsory and provide the answers in the given questions paper.
- From Part II, select two (02) questions and provide the answers in the answer booklet.
- Mention the Exam Index Number in every pages of Part I and attached it to the answer booklet.
- Total marks allocated for the paper is 100.
- The use of any digital communication device during the examination is strictly prohibited.

Part I

Question No. 01

[a] Read the statements given below and indicate whether each statement is True or False.

No	Statement	True / False
01	A Human Resource Information System (HRIS) is a subset of information systems used to administer people effectively and efficiently.	
02	The value of a digital good depends primarily on the physical materials used to produce it.	

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03	A Transaction Processing System (TPS) is a type of business management software that organisations use to integrate and automate core business processes, thereby improving efficiency and decision-making.	
04	A computer virus can replicate and spread automatically without any human involvement, whereas a worm must attach itself to a legitimate file, program, or document and requires user action to spread.	
05	Business Intelligence (BI) systems help organisations identify trends and patterns from large volumes of data.	
06	Business Information Systems are designed to support organisational goals; however, their success depends solely on the quality of the technology used.	
07	Replacing all human decision-making with artificial intelligence guarantees better organisational decisions in every situation.	
08	An online retailer can continue accepting customer orders even if its website is temporarily unavailable, provided that its physical store remains open.	
09	Government institutions experiencing a ransomware attack can seek technical guidance and incident response assistance from their national Computer Emergency Response Team (CERT) to minimize impact.	
10	The Right to Information (RTI) is a fundamental human right that guarantees citizens the ability to access records and documents held by public authorities.	

(each 01 marks * 10 = Total 10 Marks)

[b] Underline the correct answer from the multiple-choice options provided for each question.

[1] Which system is primarily used to process daily employees' attendance?

- a) Management Information System (MIS)
- b) Transaction Processing System (TPS)
- c) Enterprise Resource Planning (ERP)
- d) Decision Support System (DSS)

- [2] Which of the following scenarios best represents traditional commerce?
- a) A customer purchases a mobile phone through an online marketplace and pays using a digital wallet.
 - b) A supermarket uses an online platform to receive orders and deliver products directly to customers' homes.
 - c) A customer visits a local bookstore, selects a book, pays at the cashier counter, and receives the product immediately.
 - d) A customer explores products in a virtual reality store and places an order using a digital avatar.
- [3] Which of the following outcomes best demonstrates the primary strategic advantage of implementing an Enterprise Resource Planning (ERP) system?
- a). Allowing each department to maintain independent databases to increase departmental autonomy.
 - b). Integrating business processes through a centralized database, enabling real-time information sharing and improved cross-functional decision-making.
 - c). Replacing all employees involved in administrative functions with automated software applications.
 - d). Restricting access to information so that departments can focus only on their individual objectives without interference from other units.
- [4] Intellectual property protection includes:
- a) A condition where an individual, business, or economy can manage their income, expenses, debts, and financial risks effectively without major disruptions.
 - b) A practice that allows institutions or individuals to store knowledge resources in a structured and easily accessible format over the internet.
 - c) The practice of protecting computers, networks, software, and data from digital attacks, unauthorised access, theft, or damage.
 - d) A patent right that protects a new invention or innovation, preventing others from using it without permission from the inventor.

- [5] A branch manager does not need details of every individual sales transaction but requires summarised reports showing monthly sales performance, customer trends, and inventory status to support managerial decisions. Which system is most suitable for this purpose?
- a) Transaction Processing System (TPS)
 - b) Management Information System (MIS)
 - c) Customer Relationship Management System (CRM)
 - d) Enterprise Resource Planning System (ERP)
- [6] Which of the following best represents a social inequality issue caused by information systems?
- a) Collecting and using personal data without proper consent or protection from the user.
 - b) People who have access to technology and internet services and those who do not, leading to inequality in education, employment, and opportunities.
 - c) Unauthorised copying, sharing, or use of software, data, or digital content.
 - d) Hacking, data breaches, or misuse of information systems to access confidential data.
- [7] Which answer is correct with the given statements below?
- Statement A:** A company can gain competitive advantages by improving both primary and support activities within its value chain.
- Statement B:** Support activities such as technology development and human resource management have no direct influence on organisational performance.
- a) Only Statement A is correct.
 - b) Only Statement B is correct.
 - c) Both Statements A and B are correct.
 - d) Neither Statement A nor Statement B is correct.

- [8] The Operations Manager receives weekly reports highlighting production levels, inventory shortages, and sales performance. These reports help identify issues and plan corrective actions. Which of the following best describes the purpose of the system generating these reports?
- a) To maintain customer relationship records
 - b) To automate routine transaction processing
 - c) To support managers by providing useful information for decision-making
 - d) To store organisational knowledge and expertise
- [9] What does the term Two-Factor Authentication (TFA) mean?
- a) A user logs into a system using only a password.
 - b) A user logs into a system using a password and a one-time code sent to their mobile phone.
 - c) A user logs into a system using a password, a one-time code sent to their mobile phone, and a fingerprint scan.
 - d) A user is allowed to access only the files relevant to their job role.
- [10] A manufacturing company uses separate software applications for finance, inventory management, human resources, and procurement. As a result, departments frequently experience data inconsistencies and delays in sharing information. To address these issues, the company has decided to implement an Enterprise Resource Planning (ERP) system. What is the primary benefit the company expects to achieve from this implementation?
- a) Allowing each department to maintain independent databases
 - b) Increasing the amount of manual data entry across departments
 - c) Integrating organisational functions through a centralised system and database
 - d) Restricting information sharing among departments to improve security

- [11] A retail company is experiencing frequent delivery delays and high inventory holding costs due to poor coordination among suppliers, warehouses, and retailers. To improve efficiency, the company has decided to implement a Supply Chain Management (SCM) system. Which of the following best describes the primary purpose of the SCM system?
- a) To support planning, controlling, and monitoring business operations.
 - b) To reduce costs in production, storage, and transportation.
 - c) Handle financial auditing and ensure compliance.
 - d) To reduce manual paperwork and administrative workload.
- [12] A consulting firm has completed numerous projects over the years, producing valuable reports, case studies, and best-practice documents. However, employees often struggle to find relevant past project knowledge when working on new assignments. To address this issue, the firm implements a Knowledge Management System (KMS). What is the primary objective of this system?
- a) To help the organisation capture, store, share, and reuse knowledge to improve decision-making and organisational learning.
 - b) To process routine business transactions such as payroll, billing, and inventory updates.
 - c) To provide senior executives with summarized strategic information for long-term planning.
 - d) To automate and integrate core business processes across departments through a centralized database.
- [13] Which of the following is **NOT** a component of the PAPA Framework?
- a) Privacy
 - b) Accuracy
 - c) Property
 - d) Authentication

- [14] Which of the following scenarios does **NOT** represent an Executive Support System (ESS)?
- a) A Chief Executive Officer accesses a dashboard displaying key performance indicators, market trends, and strategic reports to support long-term planning.
 - b) A Managing Director reviews summarized information on sales, profits, and competitor activities before making strategic decisions.
 - c) A supermarket cashier scans products, processes payments, and prints receipts for customers.
 - d) A university Vice Chancellor examines enrollment trends and financial summaries through a graphical dashboard to support policy decisions.
- [15] A company stores manuals, policy documents, training guides, and standard operating procedures in a digital repository so that employees can easily access and reuse them. This type of knowledge is well-documented, formal, and can be easily shared across the organisation. Which of the following best describes this type of knowledge?
- a). Tacit knowledge that is personal and difficult to express
 - b). Explicit knowledge that is codified and easily documented
 - c). Experiential knowledge gained through personal practice only
 - d). Intuitive knowledge that cannot be recorded or stored
- [16] Which answer is correct with the given statements below?
- Statement A:** Knowledge Work Systems support professionals such as engineers, scientists, and designers in creating new knowledge and innovations.
- Statement B:** Knowledge Work Systems are primarily used to process routine and repetitive business transactions such as billing and payroll.
- a) Only Statement A is correct.
 - b) Only Statement B is correct.
 - c) Both Statements A and B are correct.
 - d) Neither Statement A nor Statement B is correct.

- [17] A local clothing retailer decides to expand its operations through an e-commerce platform. Which benefit is most likely to contribute directly to business growth?
- a) Reduces rent, utilities, and labour costs.
 - b) Allows businesses to reach customers worldwide without geographical limitations.
 - c) Customers can access a large range of products and compare options easily.
 - d) Businesses can track customer behaviour and preferences to improve marketing and sales strategies.
- [18] A company has recently experienced several cyberattacks where hackers attempted to gain unauthorised access to its internal network. To prevent future attacks, the organisation installs a firewall and implements multi-factor authentication (MFA) for all employees. Which of the following best defines cybersecurity?
- a) A gap in a system that can be exploited by attackers to gain unauthorised access, steal, or damage data.
 - b) A malicious software that spreads through computer networks by infecting connected devices, often without user awareness.
 - c) A software program designed to detect, prevent, and remove malicious software (malware).
 - d) The practice of protecting computers, networks, systems, and data from cyber-attacks, unauthorised access, theft, or damage.
- [19] An online retailer collects customer purchase histories and uses the information to send personalised product recommendations and promotional offers. Which type of system primarily supports these activities?
- a) Knowledge Management System (KMS)
 - b) Supply Chain Management System (SCM)
 - c) Customer Relationship Management System (CRM)
 - d) Transaction Processing System (TPS)

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[20] Which of the following scenarios best demonstrates the purpose of a Business Information System?

- A company uses software only to process employee payroll.
- A business integrates information from sales, inventory, and customers to support operations and managerial decision-making.
- A retailer uses a database only to store customer contact information.
- An organisation uses software only to record financial transactions.

(each 01 marks * 20 = Total 20 Marks)

[c] Provide a short answer for the following questions in your answer booklet.

1. State four (04) characteristics of an effective information system.

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2. A retail company maintains poor communication with its suppliers, leading to frequent stock shortages and excess inventory. Explain one problem caused by this situation and how a Supply Chain Management (SCM) system could help improve operations.

[illegible]

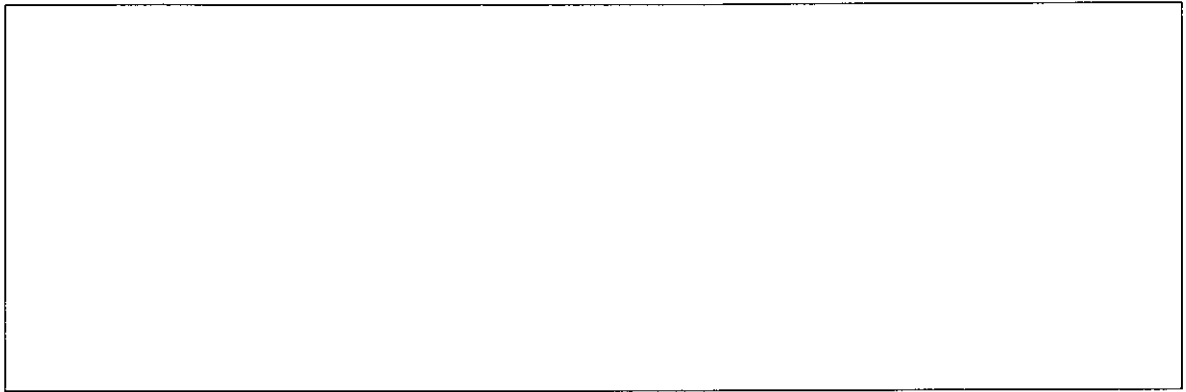
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3. Compare tacit and explicit knowledge in a knowledge management system.

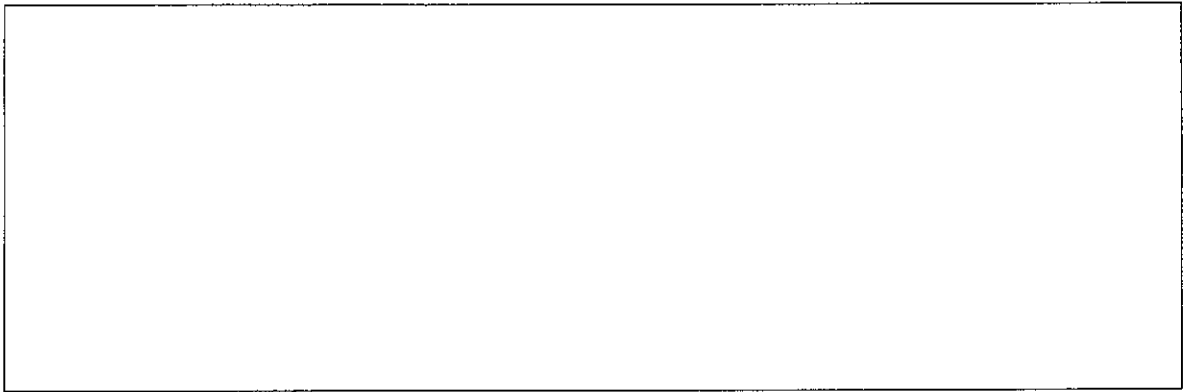
4. List four (04) differences between Management Information Systems (MIS) and Executive Support Systems (ESS).

5. Why do some organisations hesitate to implement an information system even though it has a lot of benefits for the company?

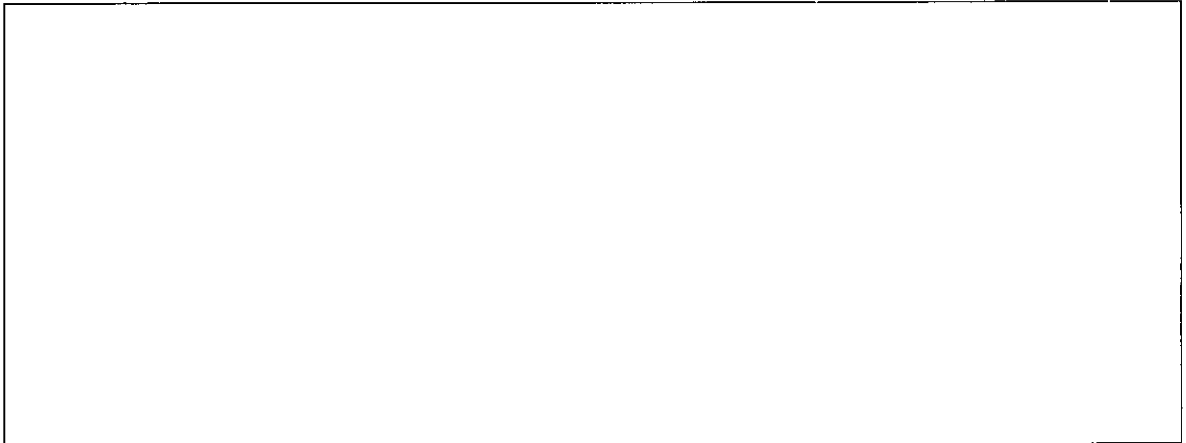
6. Identify and briefly explain two [02] common payment methods used in E-commerce transactions.



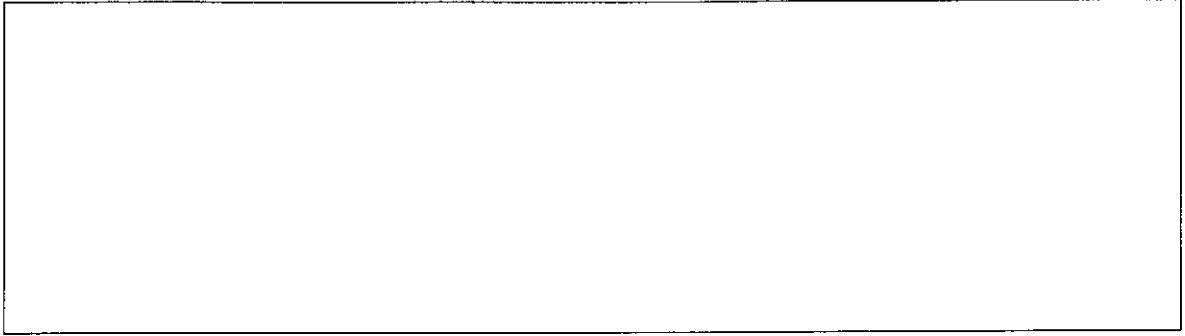
7. Briefly describe the four (04) competitive advantages of enterprise systems in the workplace.



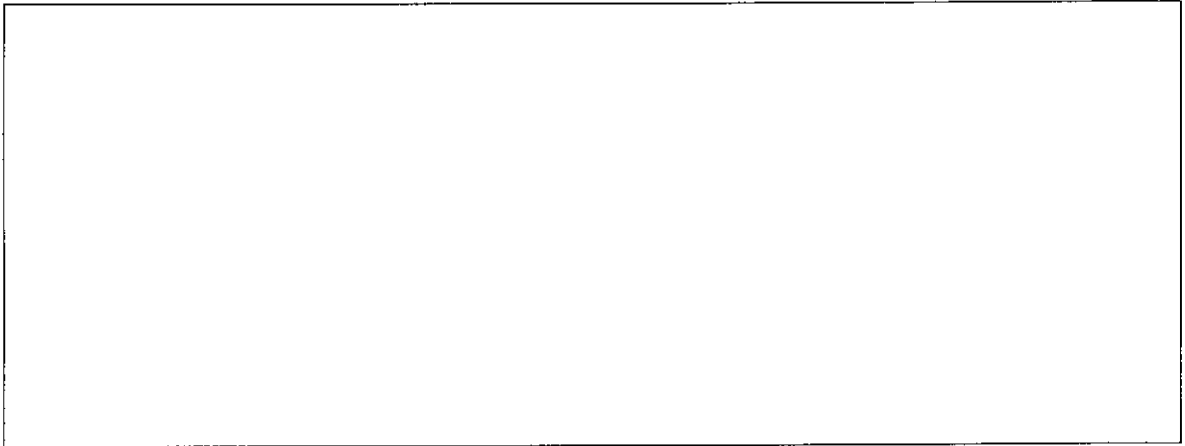
8. Why is business process integration important for modern organisations? State two (02) benefits.



9. Briefly explain the ways to protect intellectual property rights.



10. Why is regular data backup important for information security?



(each 02 marks * 10 = Total 20 Marks)

(Part I: Total Marks: 50)

Part II

Question No: 01

- a) Identify and compare the Supply Chain Management (SCM) system and the Customer Relationship Management (CRM) system, highlighting their key functions.

(06 Marks)

- b) Evaluate the statement, "An information system is only as effective as the people and processes that support it." Support your answer with relevant examples.

(09 Marks)

- c) Discuss how information systems support the objectives of different management levels within an organisation. In your answer, provide relevant examples of information systems used at each management level.

(10 Marks)

(Total 25 Marks)

Question No: 02

- a) Identify and explain three (3) ways in which information systems support e-commerce activities.

(06 Marks)

- b) Read the following scenario and answer the questions that follow.

A student studying e-commerce observed how different online businesses generate revenue through their websites and mobile applications. The student carefully observed and identified the revenue models used by the businesses.

Observation:01

A company called *LearnFast* provides professional online courses, certification programs, and recorded lectures. However, the company allows users to access all learning materials free of charge and generates most of its income through advertising displayed on its platform.

Observation:02

A company called *FreshKart* sells groceries and household items directly to customers through its website. Instead of earning revenue from product sales, the company charges customers a fixed monthly fee to access the online store, regardless of whether they make purchases.

Observation:03

A company called *TravelLink* operates a website that compares hotel rooms, airline tickets, and tour packages offered by different service providers. The company receives a commission whenever a customer makes a booking through links provided on its platform.

- i) Identify the current revenue model used by each business.
(03 Marks)
- ii) Evaluate the suitability of the current revenue model for each business and recommend a more appropriate revenue model where necessary, with justifications.
(06 Marks)
- iii) A newly established online retail company aims to provide a seamless and personalised shopping experience for its customers. Recommend four [04] technologies that can be implemented to enhance the user experience and explain how each technology adds value to customers.
(10 Marks)

(Total 25 Marks)

Question No: 03

- a) State three (03) security risks associated with cloud computing and briefly explain how organisations can mitigate them.
(06 Marks)
- b) Having access to information does not give a person the right to use it in any way they wish. Discuss this statement with reference to computer ethics.
(07 Marks)

- b) Read the following scenario and answer the question that follows.

A university recently introduced an online student portal hosted on a cloud-based platform to manage student records, academic information, and administrative services. Within a few months of implementation, the university experienced several cybersecurity incidents. Some students gained unauthorised access to other students' records due to inadequate access controls. In addition, several staff members used weak passwords that could be easily guessed by attackers. The university also faced phishing attacks in which fraudulent emails tricked users into revealing their login credentials. Furthermore, an internal review revealed that the university had not maintained backup copies of some important files, increasing the risk of data loss and service disruption in the event of a cyber incident.

Using the CIA framework, discuss the possible security weaknesses and their impact on the system. Recommend appropriate security controls to address these weaknesses and enhance the student portal's security.

(12 Marks)

(Total 25 Marks)

(Part II: Total Marks: 50)