



ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

LEVEL II EXAMINATION - JANUARY 2025

(202) INFORMATION SYSTEMS IN DIGITAL ENVIRONMENT

• Instructions to candidates (Please Read Carefully):

- (1) **Time Allowed:** Reading : 15 minutes.  
Writing : 03 hours.

02-02-2025  
Morning  
[08.45 – 12.00]

No. of Pages : 08  
No. of Questions : 07

- (2) **All questions should be answered.**  
(3) **Answers should be in the medium applied for, in the booklets provided.**  
(4) **State clearly assumptions made by you, if any.**  
(5) **Action Verb Check List with definitions is attached. Each question will begin with an action verb excluding OTQ's. Candidates should answer the questions based on the definition of the verb given in the Action Verb Check List.**  
(6) **100 Marks.**

**SECTION A**

**Objective Test Questions (OTQs)**

(Total 25 marks)

**Question 01**

Select the most correct answer for question No. 1.1 to 1.10. Write the number of the selected answer in your answer booklet with the number assigned to the question.

**1.1** Which one of the following can be considered as a series of phase needed in handling big data?

- (1) Marketing. (2) Integration.  
(3) Clustering. (4) Classification.

**1.2** Consider the following statements with reference to the Operating Systems:

- (a) The operating system controls and manages hardware components like CPU, memory, and storage devices.  
(b) The operating system offers a user interface (GUI or command-line) that allows users to interact with the computer.  
(c) The operating system manages file operations including creating, deleting, reading, writing, and organizing files on storage devices.

Of the above, the correct statement/s is/are:

- (1) (a) only. (2) (a) and (c) only.  
(3) (b) and (c) only. (4) All of the above.



**1.7** Which of the following best describes the primary distinction between Business Analytics (BA) and Business Intelligence (BI)?

- (1) Business Analytics focuses on historical data analysis, while Business Intelligence emphasizes predictive modelling.
- (2) Business Intelligence is primarily used for reporting and dashboards, while Business Analytics involves deeper statistical and predictive modelling.
- (3) Business Intelligence is more concerned with future trends, whereas Business Analytics deals with past performance.
- (4) Business Analytics and Business Intelligence are identical and have no significant differences in their functions.

**1.8** Assume that you have accessed your bank account using a computer located in a communication centre. A few days later, you observed that some amount of money from your account had been transferred to someone else's account without your knowledge.

This form of threat can be happened due to:

- |               |                               |
|---------------|-------------------------------|
| (1) Malware.  | (2) Keystroke Loggers.        |
| (3) Phishing. | (4) Denial of Service Attack. |

**1.9** Which one of the following statements is correct with reference to integrity of an Information System?

- (1) It ensures that data within the information systems are accurate.
- (2) It requires that only authorized users have the ability to change, move or delete certain type of data files.
- (3) It is one of concepts (principles) with reference to information security.
- (4) All of the above.

**1.10** Which of the following is a common benefit associated when using cryptocurrencies for transactions?

- (1) All cryptocurrency transactions are completely anonymous and cannot be traced.
- (2) Transactions can only be made during bank business hours, ensuring they are secure.
- (3) Cryptocurrencies are backed by physical assets like gold, which guarantees their value.
- (4) Users can make quick, low-cost international transactions without the need for traditional banks.

(02 marks each, 20 marks)

State whether each of the following statements from 1.11 to 1.15 is True or False. Write the answer (True/False) in your answer booklet with the number assigned to the question.

- 1.11 A smart phone can be used as a digital copier to keep documents stored as PDF files or pictures.
- 1.12 A cloud storage provides enhanced security and privacy compared to traditional storage solutions because users have full control over the storage infrastructure.
- 1.13 Operational risks can arise from inadequate or failed internal processes.
- 1.14 Existence of different social media platforms makes it difficult for organizations to perform a comprehensive competitors' analysis.
- 1.15 All crowdfunding websites guarantee that projects will be successfully funded and completed.

(01 mark each, 05 marks)  
(Total 25marks)

---

*End of Section A*

---

## **SECTION B**

(Total 50 marks)

### **Question 02**

In a competitive business environment, organizations increasingly rely on information systems to enhance their operations, improve decision-making, and manage personal and organizational data efficiently. A leading company has recently implemented a new information system to streamline its business processes, to improve data analysis, and to ensure that personal and organizational information is managed securely. The company's management believes that this system will significantly enhance operational efficiency and support strategic decision-making.

**You are required to:**

- (a) (i) **Identify** two(02) elements of an information system. (02 marks)
- (ii) **Explain** how the above elements of an information system stated in (a) (i) contribute to the overall functionality of the system. (02 marks)
- (b) **Explain** two(02) reasons why information systems have become widespread in organisations. (04 marks)
- (c) **List** two(02) common features of Personal Information Management (PIM) software. (02 marks)

(02 marks)  
(Total 10 marks)

### Question 03

“**Trans Globe (Pvt) Ltd**” is a startup company in the manufacturing industry. At the moment they are evaluating different hardware and software specifications to streamline their business processes by developing their Information Technology infrastructure. Further, **Trans Globe (Pvt) Ltd.** is planning to establish an internal network in the organization. Sales assistants of **Trans Globe (Pvt) Ltd.** need to visit their clients’ sites and collect relevant information to update their information systems.

**You are required to:**

- (a) (i) **Identify** a type of network suitable for this organization in terms of geographical spread. (01 mark)
- (ii) **State** two(02) benefits of using such a network. (02 marks)
- (b) **Identify** two(02) devices, along with their functionalities, that can be used by the sales assistants to collect relevant information. (04 marks)
- (c) **Identify** a suitable application software that can be used by **Trans Globe (Pvt) Ltd.** to fulfill each of the following requirements.
- (i) Perform Accounting related operations.
- (ii) Remotely communicate with stakeholders.
- (iii) Sketch the designs of products. (03 marks)

(Total 10 marks)

### Question 04

A large-scale business organization is planning to enhance its operations by implementing advanced information systems to manage its’ vast data resources and improve decision-making across the organization.

**You are required to:**

- (a) (i) **List** two(02) types of information systems that are typically used in organizations (02 marks)
- (ii) **State** two(02) roles each of information system in stated (a) (i) above. (04 marks)
- (b) **Explain** how organizations can use Business Intelligence (BI) and Business Analytics (BA) to capitalize on the vast amount of data they collect from their business transactions.

(04 marks)

(Total 10 marks)

## Question 05

**Maleesha** has recently started a dress-making business. She thought of using social networking to promote her business. She understands that cyber security is a major concern in today's digital world. There are many ways to protect information, users, and organizations' data.

**You are required to:**

- (a) **Explain** two(02) ways how **Maleesha** can use social networking to commercialize her business. (04 marks)
  - (b) **Identify** two(02) practices that can be used to improve online security. (02 marks)
  - (c) **Explain** two(02) legal regulations in Sri Lanka related to the entry, storage and transmission of data through the information systems. (04 marks)
- (Total 10 marks)

## Question 06

A leading Sri Lankan retail chain, **Retail Max**, is looking to stay competitive in a rapidly changing market by adopting cutting-edge technologies. They are keen on understanding the driving forces behind the 4<sup>th</sup> Industrial Revolution by exploring disruptive technologies introduced in Sri Lanka and evaluating the potential of Financial Technologies (FinTech) to streamline their operations and enhance customers' experience.

**You are required to:**

- (a) **Explain** two(02) driving forces of the 4<sup>th</sup> Industrial Revolution that can be used by **Retail Max**. (04 marks)
  - (b) **Identify** two(02) Digital Learning Technologies that can be used by **Retail Max** to build the capacity of its employees. (02 marks)
  - (c) **Explain** two(02) potential impacts of Financial Technologies (Fintech) on **Retail Max's** operations. (04 marks)
- (Total 10 marks)

---

*End of Section B*

---

## **SECTION C**

(Total 25 marks)

### **Question 07**

**TechnoGro**, a leading agricultural supply company, operates across multiple regions in Sri Lanka, providing equipment, seeds, and fertilizers to farmers. However, the company faces challenges in managing its inventory, order processing, and customer service due to fragmented databases and inefficient manual processes. To overcome these issues, **TechnoGro** plans to implement a robust database system that can handle complex data needs.

**TechnoGro** also intends to launch an e-commerce platform, allowing customers to place orders online. This move is expected to streamline sales, improve customer reach, and offer significant advantages and reduce overheads. Concurrently, the company plans to integrate an Enterprise Resource Planning (ERP) system to manage its operations more effectively, ensuring smooth coordination of its branches and functional areas.

To optimize costs further, **TechnoGro** is exploring Business Process Outsourcing (BPO) for customer service and IT support activities. The company is also committed to reduce its environmental impact by introducing best practices.

**You are required to:**

- (a) **Explain** two(02) key factors to be considered when selecting a database for **TechnoGro**.  
(04 marks)
- (b) **List** two(02) database users who may involve in **TechnoGro** and **Explain** their roles.  
(04 marks)
- (c) **Identify** three(03) main business functions of **TechnoGro** to which information systems can be implemented to strengthen its activities with an example of an information system that can be used in each function.  
(06 marks)
- (d) **Explain** two(02) benefits that **TechnoGro** can gain by implementing an Enterprise Resource Planning (ERP) system for its operations.  
(04 marks)
- (e) **Identify** three(03) types of Business Process Outsourcing (BPO) that **TechnoGro** can use for managing customers' support and IT services.  
(03 marks)
- (f) **Explain** two(02) ways that **TechnoGro** can address to reduce the environmental effects of computing.  
(04 marks)

(Total 25 marks)

---

*End of Section C*

## **ACTION VERBS CHECK LIST**

Level of Competency	Description	Action Verbs	Verb Definitions
<b>Knowledge (1)</b>	Recall Facts and Basic Concepts.	<b>Draw</b>	Produce a picture or diagram.
		<b>Relate</b>	Establish logical or causal connections.
		<b>State</b>	Express details definitely or clearly.
		<b>Identify</b>	Recognize, establish or select after consideration.
		<b>List</b>	Write the connected items.

Level of Competency	Description	Action Verbs	Verb Definitions
<b>Comprehension (2)</b>	Explain & Elucidates Ideas and Information.	<b>Recognize</b>	Show validity or otherwise, using knowledge or contextual experience.
		<b>Interpret</b>	Translate into understandable or familiar terms.
		<b>Describe</b>	Write and communicate the key features.
		<b>Explain</b>	Make a clear description in detail using relevant facts.
		<b>Define</b>	Give the exact nature, scope or meaning.

Level of Competency	Description	Action Verbs	Verb Definitions
<b>Application (3)</b>	Use and Adapt Knowledge in New Situations.	<b>Reconcile</b>	Make consistent / compatible with another.
		<b>Graph</b>	Represent by graphs.
		<b>Assess</b>	Determine the value, nature, ability or quality.
		<b>Solve</b>	Find solutions through calculations and/or explanation.
		<b>Prepare</b>	Make or get ready for a particular purpose.
		<b>Demonstrate</b>	Prove or exhibit with examples.
		<b>Calculate</b>	Ascertain or reckon with mathematical computation.
		<b>Apply</b>	Put to practical use.

Level of Competency	Description	Action Verbs	Verb Definitions
<b>Analysis (4)</b>	Draw Connections Among Ideas and Solve Problems.	<b>Communicate</b>	Share or exchange information.
		<b>Outline</b>	Make a summary of significant features.
		<b>Contrast</b>	Examine to show differences.
		<b>Compare</b>	Examine to discover similarities.
		<b>Discuss</b>	Examine in detail by arguments.
		<b>Differentiate</b>	Constitute a difference that distinguishes something.
		<b>Analyze</b>	Examine in details to find the solution or outcome.