



## ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

### LEVEL II EXAMINATION - JULY 2025

### (202) INFORMATION SYSTEMS IN DIGITAL ENVIRONMENT

• **Instructions to candidates** (Please Read Carefully):

(1) **Time Allowed:** Reading : 15 minutes.

Writing : 03 hours.

(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.

27-07-2025

Morning

[08.45 – 12.00]

No. of Pages : 07

No. of Questions : 07

### **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** Of the following, select how technologies like FinTech and Big Data help organizations to enhance their competitiveness:

- (1) By ignoring new technologies.
- (2) By sticking to old ways of doing things.
- (3) By only focusing on financial transactions.
- (4) By making faster decisions and offering better financial services.

**1.2** Select from the following, how mobile computing devices support and strengthen the overall IT infrastructure of an organization:

- (1) By limiting the ability to access organization's resources remotely.
- (2) By restricting access to certain organization's applications.
- (3) By allowing employees to access organization's systems and data from anywhere, improving flexibility and productivity.
- (4) By only being used for personal communication.

**1.3** Which one of the following is an example for M-Commerce applications?

- (1) Mobile Banking.
- (2) Mobile Marketing.
- (3) Mobile Ticketing.
- (4) All of the above.

**1.4** Consider the following factors:

- (a) Accessibility of data.
- (b) Safety and security of data.
- (c) Complexity of data.
- (d) The size of data to be stored.

Of the above, the factors to be considered when selecting a database are:

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

**1.5** Which one of the following statements is **incorrect** with reference to “data mining”?

- (1) It is extracting information from large data sets.
- (2) It can be used for fraud detection.
- (3) It cannot be used for large data sets.
- (4) It helps to identify trends and patterns of a data set.

**1.6** Which one of the following is **not** a factor to be considered for selecting IT infrastructure and information systems?

- (1) Security.
- (2) Support and Development.
- (3) Non functionality.
- (4) Cost and Suitability.

**1.7** An e-commerce company wants to track Key Performance Indicators (KPIs) to understand the current status of the business. Which one of the following business analytics techniques will be the most useful for this purpose?

- (1) Prescriptive Analytics.
- (2) Predictive Analytics.
- (3) Operational Analytics.
- (4) Descriptive Analytics.

**1.8** **Amith, Kasuni's** former intimate friend, created a fake Facebook profile of **Kasuni** to impersonate and harass her, spreading rumors and lies that caused her significant distress. Which one of the following best describes the behaviour of **Amith**?

- (1) Malware.
- (2) Cyber Bullying.
- (3) Phishing.
- (4) Hacking.

**1.9** Which one of the following correctly defines the Information Privacy for individuals?

- (1) The ability of companies to store as much users' data as needed for marketing purposes.
- (2) The right of the government to monitor data for national security purposes.
- (3) The right of an individual to control his or her own data and to specify how those data are collected, used and shared.
- (4) The permission given to software developers to access devices' information for updates.

**1.10** Which one of the following is an example of an innovation attributed to disruptive technologies introduced into the Sri Lankan market?

- (1) Face-to-face banking.
- (2) Hardware devices like printers and scanners.
- (3) A productivity application like Microsoft Office 365.
- (4) Ride-hailing apps like PickMe and mobility solutions. (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** Voice Over Internet Protocol (VOIP) can be used to handle communication among employees within the organization.

**1.12** Internet over Satellite (IoS) is one of the commonly used speedy methods for internet connectivity by individuals in Sri Lanka.

**1.13** Transaction Processing Systems (TPS) can process data as batches only.

**1.14** Using a computer for purposes outside the scope of one's granted authority is considered as a punishable offence under the Computer Crimes Act No. 24 of 2007.

**1.15** Financial Technologies reduce an organization's ability to make informed financial decisions by limiting access to real-time data and analytics.

(01 mark each, 05 marks)

(Total 25marks)

---

*End of Section A*

---

## **SECTION B**

(Total 50 marks)

### **Question 02**

In today's digitalized world, organizations heavily rely on information systems to manage data effectively, to make strategic decisions and to maintain a competitive edge. For this, data and information play a critical role.

**You are required to:**

- (a) **Explain** two(02) differences between data and information. (03 marks)
  - (b) **Explain** two(02) ways how ICT tools assist in analyzing data to support informed decision-making in modern organizations. (04 marks)
  - (c) **Explain** what is meant by Business Process Re-engineering (BPR). (03 marks)
- (Total 10 marks)

### **Question 03**

A growing logistics company, "**SwiftMove**", is considering to upgrade its mobile devices and software for improvement of operational efficiency. **SwiftMove** is evaluating cloud storage options to fulfill the needs of its increasing data and to select a suitable database for tracking shipments.

**You are required to:**

- (a) **List** two(02) general purpose software and two(02) application specific software that can be used by **SwiftMove**. (04 marks)
  - (b) **Explain** two(02) reasons why **SwiftMove** wants to upgrade its mobile devices. (04 marks)
  - (c) **State** two(02) disadvantages of cloud computing. (02 marks)
- (Total 10 marks)

### **Question 04**

"**DataDriven Solutions**" which is a consulting firm, helps organizations to implement various information systems, including Business Intelligence (BI) and analytics platforms. This firm is currently assisting a large manufacturing company to integrate new information systems and to leverage data for strategic decision-making.

**You are required to:**

- (a) **Explain** the difference between data analysis and business intelligence. (03 marks)
  - (b) **Identify** three(03) advantages of using an Office Automation System (OAS). (03 marks)
  - (c) **State** four(04) benefits of a business intelligence program. (04 marks)
- (Total 10 marks)

## Question 05

Social media continues to reshape communication and business landscapes. Organizations and individuals need to understand the opportunities, threats, and legal implications associated with information systems. Simultaneously, the need for environmentally responsible computing has become more critical than ever.

**You are required to:**

- (a) **Identify** three(03) negative impacts of social media and social networks. (03 marks)
  - (b) **Explain** the following information security concepts (principles).
    - (i) Integrity.
    - (ii) Availability. (03 marks)
  - (c) **Explain** two(02) factors influencing data centers as well as desktop computers to adopt green computing. (04 marks)
- (Total 10 marks)

## Question 06

“**Innovate Lanka**” is a tech startup company focused on bringing 4<sup>th</sup> Industrial Revolution Technologies and FinTech Solutions to the Sri Lankan market. They are developing AI-driven applications and blockchain-based platforms to empower local businesses and individuals with emerging technologies.

**You are required to:**

- (a) **Explain** two(02) ways how Sri Lankan businesses can gain competitive advantages by adopting to emerging technologies such as AI-driven applications developed by “**Innovate Lanka**”. (04 marks)
  - (b) **Identify** four(04) advantages of using crowd funding. (04 marks)
  - (c) **State** two(02) possible risks associated with crowd funding. (02 marks)
- (Total 10 marks)

---

*End of Section B*

---

## **SECTION C**

(Total 25 marks)

### **Question 07**

**Greenway**, a growing organic food delivery organization in Sri Lanka, faces several challenges after its' rapid expansion. The delivery agents of the organization use mobile devices for real-time order management, navigation, and customers' feedbacks. The increasing volume of orders require **Greenway** to consider cloud storage for better scalability and a robust database to manage inventory and customers' information efficiently. **Greenway** plans to enhance their marketing strategies by utilizing social media platforms to reach a wide range of health-conscious customers.

Data security and customers' privacy are critical concerns of this business. Thus, **Greenway** must implement strong security measures to protect sensitive data and comply with Sri Lankan legal regulations. Recent issues with inventory inconsistencies, leading to stock shortages and delivery delays, necessitate the use of business intelligence and analytics tools. **Greenway** intends to use real-time dashboards and predictive analytics to optimize inventory, to improve operational efficiency and to make data-driven decisions.

They also recognize the importance of adhering to legal requirements. **Greenway** aims to enhance customers' satisfaction through a loyalty program, manage employees' data effectively and maintain a competitive edge in the evolving market by adopting emerging technologies and ensuring regulatory compliance.

#### **You are required to:**

- (a) **List** four(04) mobile devices that can be used by **Greenway**. (04 marks)
- (b) **Identify** four(04) benefits that **Greenway** can gain by introducing communication software for all the employees of the business. (04 marks)
- (c) **Explain** three(03) types of information systems other than Office Automation Systems that can be used by **Greenway**. (06 marks)
- (d) **State** five(05) advantages of using E-Commerce to **Greenway**. (05 marks)
- (e) **Identify** two(02) possible intentional or malicious information security threats that can attack the information systems of **Greenway** and **explain** two(02) steps that can be taken to improve the security. (06 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.