ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

LEVEL II EXAMINATION - JANUARY 2022

(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.*

20-03-2022
Morning
[08.45 – 12.00]

No. of Pages   : 08
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   Select the correct statement with reference to data:

  (1)   Data is derived from information.

  (2)   Data is designed to serve the purpose of any specific need.

  (3)   Data refers to raw unrefined facts and figures.

  (4)   Data is a result of processed information.

1.2 Consider the following statements on "Google Sheets":

(a) It is an application used to work on spreadsheets.

(b) It is normally used with an internet connection.

(c) It can be used even without paying for using the service.

(d) It was developed by Microsoft Corporation.

Of the above, the correct statements are:

(1) **(b)** and **(c)** only.

(2) **(a), (b)** and **(d)** only.

(3) **(a), (b)** and **(c)** only.

(4) **(b), (c)** and **(d)** only.

1.3 Consider the following technologies available for a student to purchase an internet connection to study from home:

(a) Optical Fiber.

(b) Asymmetric Digital Subscriber Line.

(c) Integrated Services Digital Network.

(d) 5G.

Of the above, which of the technologies are available in Sri Lanka at present to study at home?

(1) **(a)** and **(b)** only.

(2) **(a), (b)** and **(c)** only.

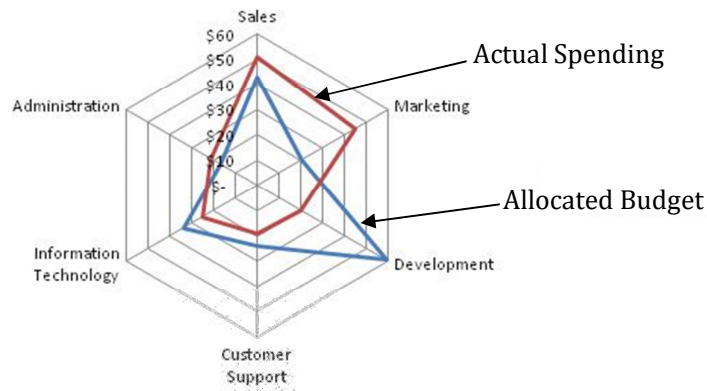(3) **(a), (b)** and **(d)** only.

(4) All of the above.

1.4 The term that can be used to describe a collection of applications such as Mobile Banking, Mobile Ticketing and Mobile Shopping is:

(1) M-Commerce.

(2) Cryptocurrencies.

(3) M-Cash.

(4) Digital Cash.

1.5 Which one of the following is **not** an example for an infographic?

(1) Flow Diagram.

(2) Map.

(3) Histogram.

(4) Smart House.

1.6 The following diagram illustrates a chart which is used as a data visualisation method:

The above chart is a:

(1) Bubble Chart.	(2) Radar Chart.
(3) Line Chart.	(4) Scatter Diagram.

1.7 Which one of the following is an example for a Cryptocurrency:

(1) Blockchain.	(2) Bitcoin.
(3) Fintech.	(4) Crowd-funding.

1.8 Which one of the following is **not** a step in the direction of improving online security?

(1)   Move away from using unsupported (out-dated) software.

(2)   Run an up-to-date anti-virus software.

(3)   Use strong passwords.

(4)   Obtain an insurance policy for loss of data.

1.9 In today's context, the power consumption of computing devices is a major concern for organisations. Which one of the following is a strategy aimed at reducing this issue when it comes to servers?

(1) Data Encryption.	(2) Use Virtualisation Techniques.
(3) Apply Blockchain Technologies.	(4) Recycle Computers.

1.10 Which one of the following is **not** an example for an online payment platform to accept funds legally?

(1)   Amazon Pay.   (2)   Linux.   (3)   Payhere.   (4)   Paypal.

(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   E-commerce allows consumers to electronically exchange goods and services with no barriers of time or distance.

1.12   Amazon S3 Service is an example for a Simple Storage Service.

1.13   The Electronic Transactions (amended) Act No. 25 of 2017 is the legal act which is related to Information Technology and Information Systems.

1.14   MOOCs is an example for crowd-funding.

1.15   An information system auditing can help an enterprise to ensure effective operations and to confirm for administration and legal regulations.   (01 mark each, 05 marks)

(Total 25marks)

———————— *End of Section A* ————————

SECTION B

(Total 50 marks)

Question 02

(a)   An Information System is a system in the organization that delivers information and communication service needed by the organization. It has several elements.

You are required to:

(i)   **Draw** a diagram to illustrate elements of an Information System.   (05 marks)

(ii)   **Explain** two(02) activities of an Information System.   (03 marks)

(b)   A business process is an activity or collection of activities which has an effort on the customers directly or indirectly.

You are required to:

Explain what is meant by Business Process Re-engineering (BPR).   (02 marks)

(Total 10 marks)

Question 03

An accounting firm established recently is planning on selecting application software for different purposes, based on their requirements as stated below:

(a)   An alternative cloud-based SaaS for Microsoft Excel.

(b)   An alternative cloud-based SaaS for Microsoft Power Point.

(c)   An alternative cloud-based SaaS for Microsoft Word.

(d)   A Database Management System Software.

(e)   A Desktop Publishing Software.

(f)   A Web browser except for Microsoft or Google.

(g)   A photo editing software for editing Facebook posted photos.

(h)   A software to setup video conferences for more than 99 users.

(i)   An Accounting Software.

You are required to:

Identify a suitable software for each of the above requirement which is currently available in the market.   (10 marks)

Question 04

The characteristics of information provided by various Information Systems may vary at different levels of management.

You are required to:

Differentiate Strategic Level of Management from Operational Level of Management under the following information characteristics:

- Time period.

- Timeliness.

- Accuracy.

- Certainty.

- Completeness.   (10 marks)

Question 05

(a) Business Intelligence and Business Analytics (Data Analytics) are considered as fastest growing markets in enterprise software landscape. The terms "Business Analytics" and "Business Intelligence" are often used interchangeably. Yet, there are key differences.

You are required to:

Explain the difference between Business Analytics and Business Intelligence. (04 marks)

(b) With the advent of IT enabled systems in organisations, Business Processes Outsourcing (BPO) activities have expanded during the recent past. There are specific organizations established solely for the purpose of provision of BPO services.

You are required to:

(i) **List** three(03) different types of services offered by the companies engaged in BPO sector. (03 marks)

(ii) **State** three(03) disadvantages of BPO. (03 marks)

(Total 10 marks)

Question 06

There are number of benefits attached with the usage of technology. Technology which allows greater and faster information sharing, contributes to improve the quality of services provided by organizations. However, there is a significant impact of technology on the environment.

You are required to:

(a) (i) **Explain** what is meant by "Green Computing". (02 marks)

(ii) **State** two(02) factors for adoption of Green Computing by an organization. (02 marks)

(b) "The advent of Cloud Computing has a negative impact on the environment".

State whether you can agree with the above statement, with justification for your answer.

(03 marks)

(c) **State** three(03) tasks that can be performed in an IT enabled office environment to ensure that E-waste makes a minimum impact on the environment. (03 marks)

(Total 10 marks)

End of Section B

SECTION C
(Total 25 marks)

Question 07

Lanka Fertilizer is a company established recently. It plans to produce and sell organic fertilizer by targeting a wide spectrum of consumers from large growers such as plantation companies up to home growers.

The company plans to setup two organic fertilizer manufacturing plants in Hambanthota and Puttalam. It also plans to locate distribution centres in each district in Sri Lanka. With the assistance of a delivery partner, the company plans to provide island-wide delivery of organic fertilizer.

The management is also keen on expanding their product portfolio not only for consumption related vegetables and fruits, but for commercial crops and re-forestation solutions.

You are required to:

(a) **State** a possible IT strategy that the company can adapt to a paper-less order processing system. (03 marks)

(b) **Explain** two(02) reasons to implement a website for the company to aid their IT Strategy. (04 marks)

(c) **Explain** four(04) components of IT infrastructure that the company might have to invest in achieving strategies mentioned in (a) and (b) above. (08 marks)

(d) **Explain** two(02) reasons to implement a mobile app for the company to aid their IT Strategy. (04 marks)

(e) **Explain** three(03) ways that the company can make use the power of social media for their benefits. (06 marks)

(Total 25 marks)

─────── *End of Section C* ───────

ACTION VERBS CHECK LIST

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

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

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

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