ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

LEVEL II EXAMINATION - JULY 2020

(202) INFORMATION SYSTEMS IN DIGITAL ENVIRONMENT

04-10-2020
Morning
[08.45 – 12.00]

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

- **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.*

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 You are given the following characteristics of Quality Information:

   (a) Relevant.   **(b)** Understandability.

   (c) Availability.   **(d)** Confidentiality.

   Of the above, the correct characteristics of Quality Information are:

   (1) **(a)** and **(d)** only.   (2) **(a)** and **(c)** only.

   (3) **(a), (b)** and **(c)** only.   (4) All of the above.

1.2 The free web based service produced by Google is known as:

   (1) Yahoo.   (2) Gmail.   (3) Outlook.   (4) Facebook.

1.3 Consider the following application software categories:

(a) Video Conferencing Software.   **(b)** Desktop Publishing Software.

(c) Accounting Software.   **(d)** Presentation Software.

Which of the following contains examples for the above Application Software categories in the correct order from **(a)** to **(d)** ?

(1) Quick Book, Apache Open Office Impress, Zoom, Adobe InDesign.

(2) Zoom, Adobe InDesign, Quick Book, Apache Open Office Impress.

(3) Apache Open Office Impress, Quick Book, Zoom, Adobe InDesign.

(4) Adobe InDesign, Quick Book, Apache Open Office Impress, Zoom.

1.4 A student is searching for an office productivity software platform which he can use on his home desktop computer and laptop for basic word processing and spread sheets. Assume he requires it for a period of six months only and he has broadband Internet connectivity at home and on his laptop.

Which one of the following is recommended to be purchased, if he is looking at an economical solution?

(1) Microsoft Office 2019.   (2) Microsoft Office 365.

(3) Microsoft Office 2016.   (4) Microsoft Power BI Premium.

1.5 The simulation human intelligence in machines that are programmed to think like humans' actions is known as:

(1) Data Visualization.   (2) Block Chain.

(3) Artificial Intelligence.   (4) Crowd Funding.

1.6 "This type of IT Infrastructure is a repository that equipped with computing facilities like servers, routers, switches and firewalls as well as supporting components like back-up equipment for electricity, fire suppression facilities and air conditioning."

Which of the following IT infrastructure closely matches with the above explanation?

(1) Network Attached Storage (NAS).   (2) Storage Area Networks (SAN).

(3) Data Centers.   (4) Cloud Computing.

1.7 Which one of the following is a sub-system of a Manufacturing Information System?

(1) Quality Control.

(2) Financial Forecasting.

(3) Human Resource Planning.

(4) Sales Forecasting.

1.8 YouTube is an example for which of the following category of Internet-based services?

(1) Social Network.

(2) Social Media.

(3) Micro Payments.

(4) Affiliate Marketing.

1.9 Which one of the following is **not** considered as an intentional and malicious information security threats to IT systems and data?

(1) Spyware.

(2) Keystroke loggers.

(3) Data backup.

(4) Backdoor access to IT systems.

1.10 Which one of the following is **not** a characteristics of Transactions Processing System (TPS):

(1) Large amount of data can be processed.

(2) Data is collected only from externally.

(3) A high level of accuracy is required.

(4) Computation complexity is low.

(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 company can reduce its call costs between its employees if they invest in Smart Phone based voice over Internet Protocol (IP) technology.

1.12 A smart phone can be used as a digital copier to keep copies of important documents stored as PDF files or pictures.

1.13 A Transaction Processing System (TPS) can assist top management of a company in their decision making process.

1.14 The Right to Information Act No. 12 of 2016 guarantees the right to access to information stored in any Information System in Sri Lanka.

1.15 SAP is an example for an Enterprise Resource Planning (ERP) system.

(01 mark each, 05 marks)

(Total 25marks)

──────── *End of Section A* ────────

SECTION B

(Total 50 marks)

Question 02

At present, information which plays a vital role in making both organizational and personal decisions. Information systems concern with the quality of information and every organization has many processes built in their systems.

You are required to:

(a) **List** three(03) differences between data and information. (03 marks)

(b) **Explain** two(02) ways in which a supermarket can utilize information technology to improve its business processes. (04 marks)

(c) **State** three(03) types of information related to your personal life that can be stored in a smart phone. (03marks)

(Total 10 marks)

Question 03

"FarmFresh" is a retail chain focusing on organic vegetables and fruits. They get their products through their own green houses in Nuwara Eliya and Farms in Dambulla. Currently they have branches in Boralesgamuwa, Wellawatte and Battaramulla. A research carried out on the request of the top management of the company suggests that there is an increased demand for Organic foods in Urban Areas, where customers are willing to pay for high quality.

You are required to:

(a) An employee of **FarmFresh** has suggested that Wi-Fi connectivity is sufficient to connect the farms, green houses and the shops.

    State whether you can agree with this statement and **explain** justifications for your answer. (03 marks)

(b) A Director of the company has commented that the company can benefit from having a website for obtaining orders and delivering products directly to homes.

    State whether you can agree with this statement. **Assess** your answer using at least two(02) possible reasons. (04 marks)

(c) **List** three(03) types of Management Information Systems (MIS). (03 marks)

(Total 10 marks)

Question 04

A popular supermarket chain with over 100 outlets in Sri Lanka is planning to invest deeply in IT to create competitive advantage. The company has estimated that they have to serve over 300,000 customers on any given day. The company has issued a loyalty card to provide discounts and offers to frequent customers.

You are required to:

(a) **Explain** what is meant by Business Analytics. (02 marks)

(b) **Identify** two(02) ways that the supermarket chain can use Business Analytics. (02 marks)

(c) **State** three(03) advantages to the super market and three(03) advantages to customers using E-commerce. (06 marks)

(Total 10 marks)

Question 05

Social networks have changed the way people interact with each other forever. Nowadays, social networks involve sharing stories, photos and involve the use of apps as well as messaging to communicate with others. Fake news is a serious concern for Governments and Business Entities in the age of Social Networks.

You are required to:

(a) (i) **State** four(04) positive impacts of social media and networks on business. (04 marks)

(ii) **Explain** a step that can be taken to reduce the impact of fake news circulating in Social Networks. (02 marks)

(b) Cyber security is the safeguards taken to avoid or reduce any disruption from an attack on data, computers or mobile devices.

You are required to:

Explain two(02) steps to be taken to improve cyber security. (04 marks)

(Total 10 marks)

Question 06

New financial technologies are rapidly changing the way how business organizations perform business functions and make other financial decisions.

You are required to:

(a) **Explain** how crowd funding can be used in the below situation:

"A Sri Lankan inventor has developed a prototype of a low cost water purifier for residences. He is requesting help via social media to find Rs.5,000,000/- to commence the commercialisation of this product." (04 marks)

(b) **State** three(03) risks involved in crowd funding. (03 marks)

(c) **Explain** what is meant by block chain. (03 marks)

(Total 10 marks)

———————— *End of Section B* ————————

SECTION C
(Total 25 marks)

Question 07

Golden Leaf Ltd. is a Sri Lankan Tea Brand which produces high quality up-country and low-country tea for the local and export market. They have a network of ten factories in different parts of Sri Lanka. The head office and storage complex is located in Peliyagoda. They have an island-wide dealers' network in the country and export their tea to 160 countries. The company is aggressively seeking to find out consumers' preferences to innovate their product lines. The company has an attractive website: goldentea.lk.

Marketing Manager informed at the management meeting that advertising products in social media and social networks is very effective.

You are required to:

(a) **Explain** how IT can provide insight to customers' buying preferences / trends for the above scenario *(Suggest any assumptions)*. (04 marks)

(b) **Explain** four(04) advantages of using Enterprise Resource Planning (ERP) system by **Golden Leaf Ltd.** (08 marks)

(c) **Explain** two(02) purposes that can be served by its website considering the stakeholders of the company. (04 marks)

(d) **Explain** two(02) functions that could be served by its YouTube Channel and Instagram Account. (04 marks)

(e) **Explain** two(02) security precautions that the company can implement, if it is planning to interconnect its head office, storage complex and factories using public telecommunication infrastructure. (05 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.