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No of Questions - 07

SCHOOL OF ACCOUNTING AND BUSINESS
BSc. (APPLIED ACCOUNTING) GENERAL / SPECIAL DEGREE
PROGRAMME

END SEMESTER EXAMINATION – JANUARY 2017

ICT 30330 Management of Information Technology

Date : 27th January 2017
Time : 5.30 p.m. - 8.30 p.m.
Duration : Three (03) hours

Instructions to Candidates:

- Write the Index Number in the space provided at the top of this sheet. Do not write your name anywhere in this question paper.
- This paper consists of three parts (A, B and C).
- Part A – Answer **all** the questions in the paper itself
Part B – Answer **all** the questions in the paper itself
Part C – Answer **one** question out of the two questions given.
- The total marks for the paper is 100.
- The marks for each question are shown in brackets.
- Answers should be written neatly and legibly.

Part A

Answer **ALL** questions

Question No. 01

Select the most appropriate answer

1. Which of the following is **not** a characteristic of big data?
 - a. Lots of verified data
 - b. Lots of unstructured/semi-structured data
 - c. High volume of data
 - d. High speed of data arrival

2. Which of the following best describes the relationship between the business strategy and the IT strategy?
 - a. There is no relationship between the business strategy and the IT strategy
 - b. IT strategy explains how IT could support the execution of the business strategy
 - c. Business strategy explains how IT could be effectively used for business operations
 - d. Both business strategy and IT strategy contains more or less the same thing

3. The pressure comes to organizations due to aging populations is an example for a:
 - a. Social pressure
 - b. Technological pressure
 - c. Market pressure
 - d. Economic pressure

4. Which of the following is true about Malware?
 - A. It is a synonym for a computer virus
 - B. It is a type of software that disrupts computer or mobile operations
 - C. Malware do not replicate by itself
 - a. A only
 - b. B only
 - c. A and C only
 - d. B and C only

5. Which of the following is not a representative business model of the digital age?
- E-marketplaces
 - Automation
 - Reverse auctions
 - Name-your-own-price
6. Amazon Web Services (AWS) is an example for:
- A set of cloud-based computing services
 - A management information system
 - An online auction
 - A set of software components that could be embedded into a website
7. Online Analytical Processing (OLAP) is an analytical feature that could be embedded to:
- Transaction Processing Systems
 - Decision Support Systems
 - Document Management Systems
 - Process Control Systems
8. Which of the following are correct about computer-based simulations?
- They ideally support semi-structured and unstructured decision making
 - They are used by the strategic level managers
 - They enable asking what-if sort of questions from a system
- A and B only
 - B and C only
 - A and C only
 - All A, B and C
9. Collecting business requirements is a part of _____ stage of the systems development life cycle
- System investigation
 - System Analysis
 - System design
 - System testing

10. Why is the justification of IT projects needed?

- A. To obtain the support and commitment of the top management
- B. To Align the IT projects with business strategy
- C. To help assessing the investment after completing the project

- a. A only
- b. B only
- c. B and C only
- d. All A, B and C

Part B

Answer **ALL** questions

Question No. 02

a. Define the term 'IT infrastructure'

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(3 marks)

b. Briefly describe the key types of services of cloud computing

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(6 marks)

- [illegible]

[illegible]

(6 marks)

(Total 15 marks)

Question No. 03

One of the revolutionary changes in the era of digital economy is electronic commerce.

- a. Differentiate electronic commerce and electronic business using the modules of an ERP system

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6 marks

(Total 15 marks)

Question No. 04

- a. Define the term ‘strategic information system’ and provide two examples for a strategic information system.

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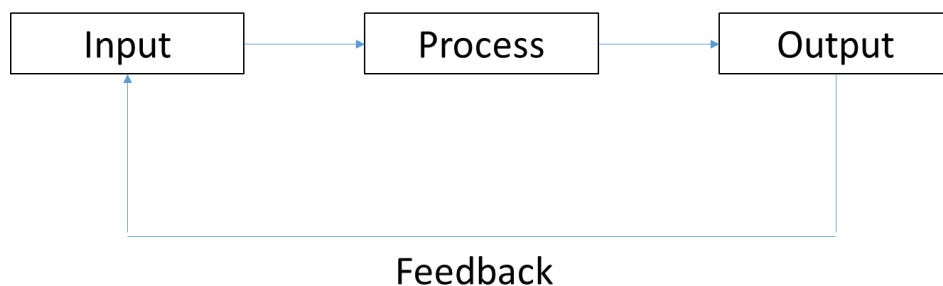
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(3 marks)

- b. Below is a diagram that depicts a ‘system’. Describe how an information system works pertaining to the diagram below.



This image shows a full page of white paper with horizontal dotted lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(3 marks)

- c. Briefly describe the functionality of a Transaction Processing System using an example

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(3 marks)

- d. Suppose you are the IT manager of a leading supermarket chain in Sri Lanka. Your team has come up with a proposal to implement a data warehouse to harness the benefit of all transaction data as well as other data collected throughout the organization. You are supposed to meet the general manager of the company and get his support and commitment to the project. Briefly describe three things you would like to highlight during this meeting.

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(6 marks)

(Total 15 marks)

Question No. 05

- a. State three sources of IT risks for an organization

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2 marks

- b. Differentiate a 'DoS attack' from a 'phishing attack'

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3 marks

- c. What is the impact of acceptable use policies (AUP) on IS security of a firm?

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2 marks

- d. Briefly explain why a business continuity plan is necessary for an organization

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3 marks

- e. Formulate a linear programming model to the following decision scenario.

Show and Sell can advertise its products on local radio and TV. The advertising budget is limited to \$10000 a month. Each minute of radio advertising costs \$15 and each minute of TV commercials \$300. Show and Sell likes to advertise on radio at least twice as much as on TV. In the meantime, it is not practical to use more than 400 minutes of radio advertising a month. From past experience, advertising on TV is estimated to be 25 times as effective as on radio. Determine the optimum allocation of the budget to TV and radio commercials.

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(5 marks)

(Total 15 marks)

PART C

Answer **any one (01)** question

Question No. 06

- a. Describe with examples what is meant by structured, semi-structured and unstructured data
(6 marks)
 - b. Explain why Twitter data can be considered as big data
(2 marks)
 - c. Briefly describe an opportunity and a challenge of big data for business organizations
(4 marks)
 - d. Explain how Twitter data could be used to harness business intelligence for a restaurant chain company
(6 marks)
 - e. What is the relationship between Internet of Things (IoT) and Big Data?
(2 marks)
- (Total 20 marks)**

Question No. 07

- a. Explain the importance of ‘system investigation’ and ‘system analysis’ stages of the system development life cycle to develop successful information systems
(6 marks)
- b. Suppose you are supervising an information system development project for Sri Lanka Police to reduce traffic in the city of Colombo.
 - i. State three requirements that needs to be satisfied by this system
(3 marks)
 - ii. Describe three possible challenges, which you will have to overcome when developing this system?
(6 marks)
 - iii. What would be the best conversion strategy when deploying this system? Justify your answer
(3 marks)

- c. What is the involvement of business process re-engineering when developing information systems?

(2 marks)

(Total 20 marks)