UNIVERSITY OF COLOMBO, SRI LANKA

FACULTY OF MANAGEMENT AND FINANCE

Postgraduate & Mid-career Development Unit

Master of Business Administration (Weekday Program) Semester II Second - half Examination

(Repeat) – July 2017

MBA 540 –Management Information Systems

Three (03) Hours

Answer <u>Four (04)</u> questions in all selecting <u>Two (02)</u> questions from each part.

Answers for part I and Part II should be written in two separate answer booklets and handed over to the examination supervisor separately.

PART I

1. i. a. How do Sri Lankans get connected to the Internet? Explain with the theoretical aspects of the information systems.

   b. What are the actions required to migrate from IPv4 to IPv6 protocol?

   (08 Marks)

   ii. a. The HTTP protocol allows a web user to access web content from a server. What is meant by **upload** and **download** with regards to the web browsing context.

   b. Consider the following Uniform Resource Locator (URL).

   http://www.mba.com/programs/2017/report.doc

   Write down the **Protocol, Domain Name, File Location** and the **File Name** of the above URL.

   (08 Marks)

   iii. The World Wide Web (WWW) can be considered as a huge library. Briefly explain **two (2)** types of information available on WWW.

   (04 Marks)

iv. a. What are the advantages of **Cloud Computing?** Explain **three (3)** of them.
    b. What is the difference between infrastructure as a service (IAAS) and software as a service (SAAS) in Cloud Computing?

(05 Marks)

(Total 25 marks)

2. i. a. Write down **two (2)** examples of operating system software.
    b. What is the difference between system software and application software?

(06 Marks)

ii. a. What is the difference between Freeware and Shareware software?
    b. What is the difference between source code and object code?

(06 Marks)

iii. a. Briefly explain **two (2)** types of open source software licenses.
    b. Write down **three (3)** ways to earn money using free and open source type software.

(07 Marks)

iv. What is meant by "Data Mining" and write down **two (2)** areas where one can gain advantage of using Data Mining Tools.

(06 Marks)

(Total 25 marks)

3. i. a. Explain how to convert **Cipher text** to **Plain text.**
    b. What is the difference between secret key encryption and public key encryption methods?

(08 Marks)

ii. a. Write down **two (2)** important properties of **Message Digest algorithms.**
    b. Given an encryption method, how can one argue that its strength of encryption capability is better than another method?

(07 Marks)

iii. Consider the following notations that are related to public key encryption.

	Person A	Person B	Person C
Public Key	K_{Pub}^{A}	K_{Pub}^{B}	K_{Pub}^{C}
Private Key	K_{Pri}^{A}	K_{Pri}^{B}	K_{Pri}^{C}

a. If person **A** encrypts a message (M1) using person **C**'s public key, is it possible to open that encrypted message using person **B**'s private key? Justify your answer.

b. Write down the steps that are required to follow by person **C**, to send a **digitally signed** and **encrypted** message (M2) to person **A**.

(10 Marks)

(Total 25 marks)

PART II

4. i. Explain what is complementary assets in relation to Information Systems. (10 Marks)

ii. "Though the information technology is widely used in today's business organizations, there are arguments that productivity has not been enhanced as expected". Elaborate this statement with examples.

(15 Marks)
(Total 25 marks)

5. i. What you mean by a Business process?

(10 Marks)

ii. "It is said that information systems can change business organizations to gain competitive advantages". Discuss this claim with examples.

(15 Marks)
(Total 25 marks)

6. i. What you mean by Knowledge Management Value Chain? Explain. (10 Marks)

ii. Describe the **two (2)** different types of information systems that are used to support knowledge management in an organization.

(15 Marks)
(Total 25 marks)

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