IMIS HIGHER DIPLOMA QUALIFICATIONS

Management Information Systems (H1)

Monday 2nd December 2013 10:00hrs – 13:00hrs

DURATION: 3 HOURS

> **Candidates should answer ALL the questions in Part A and THREE of the five questions in Part B. Part A carries 40% of the marks available and Part B carries 60%. Candidates should allocate their time accordingly.**

No reference material of any kind may be taken into the examination.

[Turn over]

PART A
Answer ALL questions in this section.
You are advised to spend about one hour on this section.

Question 1

Transaction Processing Systems (TPS) form part of the Management Information Systems (MIS) infrastructure. What are their important functions?

(5 marks)

Question 2

Organisational cultural and sub cultural factors influence the development and introduction of Information Systems. Illustrate some of these factors. You might find it helpful to consider Japan as an example.

(5 marks)

Question 3

Changing to wireless technology can lead to costly failures. Text book examples include the American Northeast Utilities Company. This disaster led to seven recommendations for more successful decisions. Briefly discuss any five of these suggested needs.

(5 marks)

Question 4

Explain the term "Click Fraud" and why guarding against this is of importance to preserve Information Systems integrity?

(5 marks)

Question 5

Explain the classical information terms "Efficiency and Efficacy" showing the difference. Which of the two do you consider the most important and why?

(5 marks)

Question 6

A Vertical Portal is a type of Information Portal. What is an Information Portal and what services does a Vertical Portal offer users (also known as a Vortal)?

(5 marks)

Question 7

When building an algorithmic model of an Information System (IS) both tangible and intangible factors are considered. How do tangible and intangible differ? Suggest **two** tangible cost savings and **two** intangible benefits from a system of your choosing. (5 marks)

Question 8

Wearable mobile devices, for example, those worn on a helmet or a wrist are emerging as powerful new workplace tools. Discuss **two** such devices and their potential usefulness in the workplace. (5 marks)

(Total 40 marks)
[Turn over]

PART B.
Answer any THREE of the five questions. You are advised to spend about
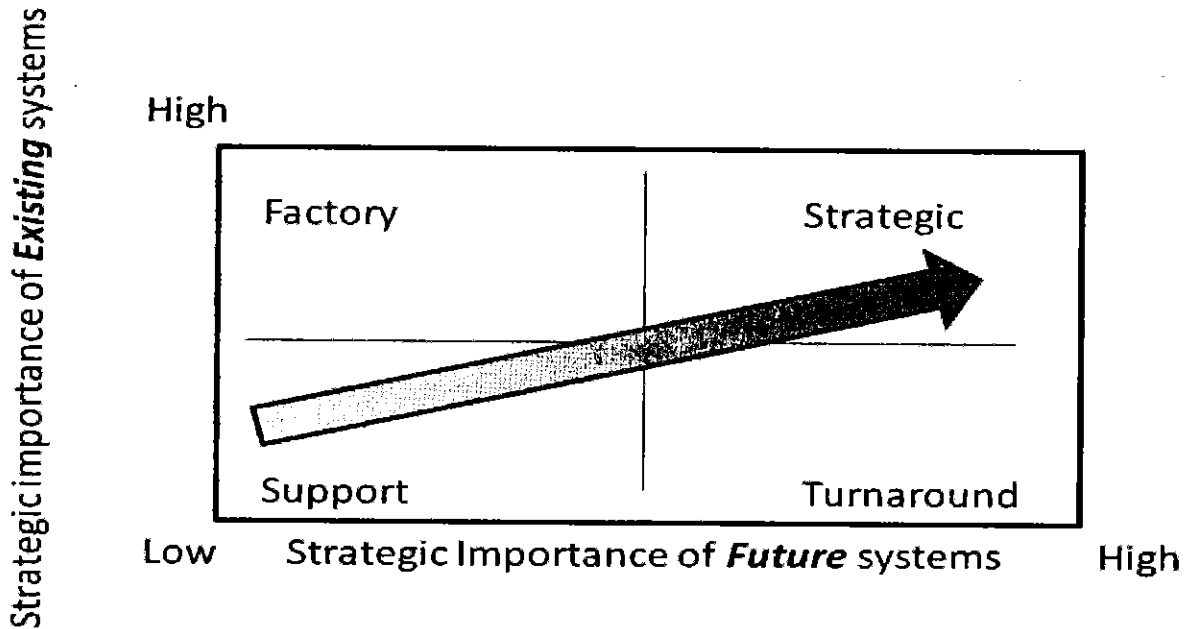hours on this section.

Question 9

Diagram One

Diagram One shows the Cash, McFarlan & McKeney model of four types of business and the increasing value of planning Information Systems (IS), set against the strategic importance of existing and planned IS. The arrow indicates the Value of Information Planning.

(a) Using Cash's model as a guide, discuss why the Factory is so dependent upon its information infrastructure.

(5 marks)

(b) How does Moore's Law influence future systems in the Factory quadrant of Diagram One?

(5 marks)

(c) Support Organisations e.g. agriculture, are shown as low strategic importance for existing and planned systems. Discuss why this is so.

(10 marks)

(Total 20 marks)

[Turn over]
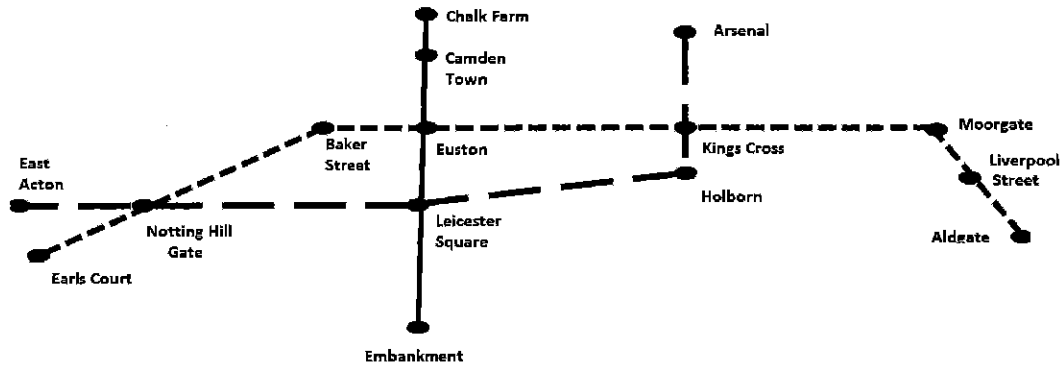
Question 10

Diagram Two

Diagram Two is based upon Harry Beck's classic 1931 representation of London's transport infrastructure, which makes little attempt to depict a realistic scale of distances, merely to indicate the nodes.

(a) Diagram Two can be seen as a Black Box with people's movements through the network as inputs. How does this Classic System Theory approach aid understanding of how a transport system operates? (5 marks)

(b) Contrast the White Box approach with the Black Box approach to systems understanding. (5 marks)

(c) If the journey times between nodes were known, Diagram Two could become an algorithmic model. How could such a model then be used by an information system expert to improve this transport systems revenue?

(10 marks)

(Total 20 marks)

Question 11

Customer Relation Management (CRM) applications can be classified using four types:

Applications	
• Customer facing	• Customer centric intelligence
• Customer touching	• Online networking

(a) Briefly describe each of the four types of application listed above.

(12 marks)

(b) The term "electronic CRM" (e-CRM) is used to describe the use of Information Technology (IT) to drive customer loyalty programmes. How do such systems aid the retailer? (8 marks)

(Total 20 marks) [Turn over]

Question 12

There are many potential ways to threaten an Information System (IS) and there are usually corresponding counter measures.

(a) Discuss the following and their usefulness

- Public Key Encryption
- Digital Certificates

- Secure Socket Layer (SSL)
- Deep Packet Inspection

(8 marks)

(b) It is not possible to make an IS fully secure, hence the use of a formula such as:

Loss = probability of attack * probability of success * estimated loss.

How would such a formula be used to rank systems to determine which ones to make as safe as possible?

(6 marks)

(c) Discuss the possible ethical issues that may arise when attempting to reduce system vulnerability.

(6 marks)

(Total 20 marks)

Question 13

Discuss a Business Intelligence Environment making sure you comment upon any **four** of the following five topics within your response

- Data from the business environment

- Business intelligence infrastructure

- Managerial users and methods

- Delivery platforms

- User interface

(Total 20 marks)

End of Examination