

IMIS HIGHER DIPLOMA QUALIFICATIONS

Management Information Systems (H1)

Monday 2nd June 2014 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.

Question A1

Suggest five benefits from converting to a fully computerised Management Information System (MIS).

(5 marks)

Question A2

Metcalfe's Law suggests the value of a network grows exponentially with the linear increase in new users. What influence would this have on Business Software trends?

(5 marks)

Question A3

Simon (1960) has produced a classic conceptual model of the stages of decision making (often depicted as a flow diagram). Describe this model, or another similar approach.

(5 marks)

Question A4

Audits are essential for MIS security. What **auditing** considerations should be considered when implementing MIS auditing?

(5 marks)

Question A5

Simon's decision model focuses upon "**Satisficing**", he accepts that humans can not always act fully rationally and often lack all the relevant information needed to make sound decisions. How may the Classic Systems Theory Approach be affected by Simon's concept of Satisficing?

(5 marks)

Question A6

It is often said that "managers need Decision Support Systems" (DSS). Suggest five reasons to support this assertion.

(5 marks)

Question A7

What is the Cloud Computing Model and how may it be used to reduce an organisation's costs?

(5 marks)

Question A8

Some Decision Support Systems (DSS) include Forward Sensitivity Analysis algorithms. What is sensitivity analysis and in particular, **forward** sensitivity analysis?

(5 marks)

PART B. Answer any THREE of the following FIVE questions.

Question B9

"Knowledge is Power" is an often quoted phrase. Discuss the four aspects of knowledge listed below taking care to comment on how each aspect may aid competitive advantage.

- Knowledge acquisition
- Knowledge Storage
- Knowledge Dissemination
- Knowledge Application

(Total 20 marks)

Question B10

The Internet uses many protocols and is still evolving.

a) Briefly distinguish between the Internet and the World Wide Web.

(5 marks)

b) The Aristotelian View would consider Mashups to be a good thing. Explain this viewpoint.

(5 marks)

c) The widespread use of the Internet encourages use of the Delphi approach. Discuss the Delphi Approach.

(10 marks)

(Total 20 marks)

Question B11

Risk is inevitable. New MIS Projects can be introduced using the 4P approach i.e. Table One below.

Plunge	The old MIS is simply replaced by the new MIS
Parallel	The new system is adopted alongside the old
Pilot	Some parts of the new are introduced
Phased	New modules added when ready

Table One

Discuss the level of risk to the organisation for each of these four approaches, taking care to offer a scenario where each approach could be seen to be the least risky.

(Total 20 marks)

Question B12

Part of the Luhn Algorithm table for checking a credit card number is shown below (Table Two).

Credit card number	3	7	7		
Number reversed	6	2	7	4	
Doubled 2 nd digit		4	-	8	-
Column totals	6	4	7	8	4

Table Two

You will remember, if the third row total exceeds 9 it is reduced by 9, if the result of adding all the row 4 totals, is divisible by 10, the card number was correct.

a) Why is this algorithm of importance to the data input of an Information System?

(5 marks)

b) An alternative approach to checking such a card number is to store all the valid numbers, why is the Luhn Algorithm a better approach?

(5 marks)

c) Should the Luhn Algorithm be classed as an Open System or a Closed System? Justify your choice.

(10 marks)

(Total 20 marks)

Question B13

Diagram one below, is an incomplete model of the IMIS Functional Management Information System (MIS), the IMIS IT and Information Systems.

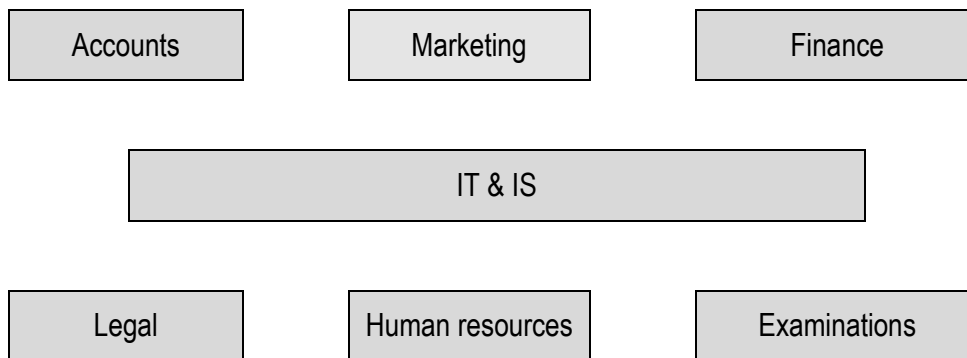


Diagram One

a) Clearly there are transfers of information/data/actions between the modules shown. Complete the diagram showing the directional flows that you would expect.

(6 marks)

b) Suggest seven annotations to your directional flows, indicating what movement of information/data you would expect. Briefly indicate the functional need for your chosen element.

(14 marks)

(Total 20 marks)

END OF EXAMINATION

