IMIS

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DIPLOMA

INFORMATION SYSTEMS DEVELOPMENT
(D6)

Monday 10th June 2013

TIME: 14:00 TO 17:00 HOURS

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.

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PART A.
Answer ALL questions in this section.

Question A1.

Compare and contrast the role of the systems analyst, business analyst, and infrastructure analyst in a systems development team. (5 marks)

Question A2.

Identify and distinguish between the typical systems development lifecycle terms: phases, steps, techniques, and deliverables. (5 marks)

Question A3.

By means of an example explain how a process model can be presented as a set of Dataflow Diagrams (DFD). What role does decomposition play in the construction of this type of model? (5 marks)

Question A4.

Provide an illustrative example to explain why we might use a decision tree and/or a decision table in a process description? (5 marks)

Question A5.

What type of high-level business rules can be represented in an Entity Relationship Diagram (ERD)? Provide two illustrative examples. (5 marks)

Question A6.

Why is metadata important to system developers? Give some examples of metadata that would be stored when constructing object oriented models. (5 marks)

Question A7.

What is the purpose of developing Use Cases during systems analysis? (5 marks)

Question A8.

Describe, with examples, the three fundamental components of most user interfaces? (5 marks)

[Turn over]

PART B.
Answer any THREE of the five questions in this section.

Question B9.

What is stakeholder analysis? Discuss three stakeholders that would be relevant for most systems development projects. (6 marks)

What are the six general skills that all members of a systems development team should have? (14 marks)
(Total 20 marks)

Question B10.

Describe the principal steps in the following phases of systems development. What are some major deliverables associated with each phase?

Systems Analysis (10 marks)

Systems Design (10 marks)
(Total 20 marks)

Question B11.

Define what is meant by the following components of a data flow diagram. Explain what information should be stored about each of these components in a CASE repository.

A process (5 marks)

A data flow (5 marks)

A data store (5 marks)

An external entity (5 marks)
(Total 20 marks)

Question B12.

What do you think are three common mistakes that novice analysts make in interface design? (6 marks)

Compare and contrast the four types of interface evaluation. (14 marks)
(Total 20 marks)

[Turn over]

Question B13.

Where does the analyst find the information needed to create a structure chart?

(4 marks)

What is meant by the characteristic of module cohesion? What is its role in structure chart quality? (8 marks)

What is meant by the characteristic of module coupling? What is its role in structure chart quality? (8 marks)

(Total 20 marks)

END OF EXAMINATION