

7033/112  
MANAGEMENT INFORMATION SYSTEMS  
AND DATA PROCESSING  
July 2010  
Time: 3 hours

THE KENYA NATIONAL EXAMINATIONS COUNCIL

**DIPLOMA IN MANAGEMENT PART I**

MANAGEMENT INFORMATION SYSTEMS AND DATA PROCESSING

**3 hours**

**INSTRUCTIONS TO CANDIDATES**

*You should have the following for this examination:*

*Answer booklet.*

*Answer any **FOUR** of the **SIX** questions.*

*All questions carry equal marks*

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**This paper consists of 3 printed pages.**

**Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**

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**Turn over**

1. (a) Distinguish between a *system* and an *information system*. (3 marks)
- (b) Explain the contribution of information systems in the achievement of the **five** functions of management. (10 marks)
- (c) (i) Outline **four** characteristics of a good *information system*. (4 marks)
- (ii) Explain **four** factors justifying the importance of *systems study* to an organization. (8 marks)
2. (a) Distinguish between the following as applied in systems theory:
- (i) closed and open system;
- (ii) system boundary and system environment. (8 marks)
- (b) Madcam company Ltd has won a tender for the development of an information system for an organization. Outline **six** main stages in the development of such a system. (12 marks)
- (c) Compare *mechanical* and *electronic* data processing methods. (5 marks)
3. (a) Discuss **four** fact finding techniques that may be used during information system development. (16 marks)
- (b) With the aid of sketches, describe the following systems analysis and design tools:
- (i) decision tables;
- (ii) decision trees;
- (iii) data flow diagrams. (6 marks)
- (c) Tazama Company Ltd has since its establishment used manual data processing methods in all its operations. Explain **two** problems the company is likely to be experiencing from such systems. (3 marks)
4. (a) Describe the following information systems clearly stating the level of management in which they are used:
- (i) decision support systems;
- (ii) executive information systems;
- (iii) transaction processing systems. (9 marks)
- (b) A manager in a certain company intends to buy 50 computers so as to automate all the company's operations. Explain **four** factors the manager is likely to consider during this process. (8 marks)

- (c) Explain **four** factors that may influence an organization to opt for *off-the-shelf* packages over *tailor-made* software. (8 marks)
5. (a) Outline **two** characteristics of each of the following programming languages:
- (i) machine language;
  - (ii) assembly language;
  - (iii) high level language. (6 marks)
- (b) Describe the application of computers in the following areas:
- (i) airline industry;
  - (ii) education management;
  - (iii) hotel industry. (9 marks)
- (c) Describe suitable application areas for the following programming languages:
- (i) FORTRAN;
  - (ii) COBOL. (4 marks)
- (d) State the circumstance under which a manager would use the following programs:
- (i) word processors;
  - (ii) spreadsheets;
  - (iii) database management systems; (6 marks)
6. (a) Outline the importance of each of the following information system controls:
- (i) hardware controls;
  - (ii) file security controls;
  - (iii) computer operation controls. (6marks)
- (b) Explain **four** factors that make computerized information systems to be more vulnerable to *fraud* and *misuse* than manual systems. (8 marks)
- (c) (i) With the aid of a block diagram, describe the functional components of a computer system. (7 marks)
- (ii) Explain **two** factors that may hamper the use of *expert systems* in Kenyan hospitals. (4 marks)