

2920/302
MANAGEMENT INFORMATION SYSTEMS
July 2018
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL
DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY
MODULE III

MANAGEMENT INFORMATION SYSTEMS

3 hours

This paper consists of 4 printed pages.

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

2. 1. (a) Outline **three** benefits of using network diagrams in project management. (3 marks) ✓
- 4 ✓ (b) Peter, an ICT manager at Masomo Institute is the custodian of personal data for all the employees. Explain **three** ethical obligations that he has with regard to this data. (6 marks)
- 6 (15) (c) A multinational organisation intends to implement a new Information System. Describe **three** levels of planning that would be necessary for successful implementation. (6 marks)
- (d) Uwezo institute is in the process of acquiring a library Management Information System. *concern*
- 1 (i) Outline **two** activities that should have been undertaken at the preparation stage. (2 marks)
- 2 (ii) Outline **three** steps that the institute followed at vendor choosing stage. (3 marks) ✓
2. (a) Explain **two** circumstances that may lead to adaptive information system maintenance. (4 marks)
- (b) (i) State **four** information systems that could be used by top management in decision making in an organisation. (2 marks)
- (ii) Explain **two** approaches through which an information system could lead to fewer levels of management in a typical organisation. (4 marks)
- (c) Table 1 shows information for an ICT project. Use it to answer the question that follows. *change*

Project activity	Predecessor activity	Duration in weeks
A	-	5
B	-	7
C	-	5
D	A	7
E	A	13
F	D,E	14
G	B	15
H	B	11
I	F,G	6

Table 1

- Using the earliest start time and the latest finish times, determine the critical path. (6 marks)
- (d) Happyland Company Ltd operates its business globally. Describe **two** systems that could enable the company transact electronically. (4 marks)

3. ✓ 2 (a) Outline **two** application areas of information society in a developing economy. (2 marks) ✓
- 2 (b) (i) Explain **two** circumstances that would lead an organization to use an Electronic Fund Transfer system. (4 marks) ✓
- (12) 6 (ii) Ujuzi Institute intends to streamline its decision-making through the use of information system. Describe **three** types of decisions that could be streamlined. (6 marks) ✓
- 2 (c) Tegemeo Industries has adopted the use of robots in their production processes. Explain **two** advantages that the organisation would accrue from this move. (4 marks)
- (d) Differentiate between *intranet* and *extranet* as used in Management Information Systems. (4 marks)
4. (a) Outline **four** factors that could be considered to ascertain effectiveness of information systems maintenance. (4 marks)
- (b) Many organisations in Kenya install a Transaction Information System. Explain **two** reasons for this. (4 marks)
- (c) (i) State **two** categories of information system resources. (2 marks)
- (ii) Distinguish between *efficiency* and *effectiveness* as used in information systems resource utilisation. (4 marks)
- (d) Kazana Institute has been overseeing an **ICT** project that stalled. Explain **three** reasons that could have led to this. (6 marks)
5. ✓ 4 (a) Outline **four** benefits realised by an organisation that outsource an information system. (4 marks)
- (3) (b) A certain training company intends to acquire a system through *User Application Development* approach. (4 marks)
- (15) (i) Outline **four** situations that make this approach applicable. (4 marks)
- (ii) Outline **two** limitations of this approach. (2 marks)
- 3 (c) Differentiate between *confidentiality* and *integrity* security goals. (4 marks)
- 5 (d) Fanaka College has an ICT project that is in progress. Describe **three** factors that are likely to affect resource allocation to this project. (6 marks)
6. (a) State **four** components of Management Information System. (2 marks)
- (b) Describe **three** types of information systems that could be used across all levels of management. (6 marks)
- (c) Jape Systems Company uses social media as its communication system. Explain **three** benefits the company realises from this. (6 marks)

- (d) Table 2 shows information about an ICT project. Use it to answer the question that follows.

Activities	Preceded by	Optimistic time	Most likely time	Pessimistic time	Expected time
A	-	3	4	5	4
B	-	2	3	16	5
C	A	2	13	18	12
D	B,C	1	2	3	2
E	A	3	14	16	13

Table 2

Determine the probability that the project will exceed the highest pessimistic time.

(6 marks)

7. 2(a) (i) State **two** uses of project management software. (2 marks)

- (ii) Outline **two** inputs that a user may enter into project management software for a given project. (2 marks)

- (b) Explain each of the following environmental factors of an information system during planning:

- (i) Economic; (2 marks)

- (ii) Technical; (2 marks)

- (iii) Social. (2 marks)

- 4 (c) Distinguish between *ready-made* and *tailor-made* information systems acquisition methods. (4 marks)

- 2 (d) The management of a certain company developed an ICT security policy document. Explain **three** components of this document. (6 marks)

8. 2(a) Explain one limitation of Gantt charts as a project management tool. (2 marks)

- 2 (b) (i) Outline **two** approaches to information system classification. (2 marks)

- 6 (ii) Explain **three** roles played by the ICT department in Management Information System of an organisation. (6 marks)

- 4 (c) Differentiate between *perfective* and *preventative* information system maintenances. (4 marks)

- 4 (d) Futuregen Company Ltd acknowledges that personnel are core to a secure information system. Explain **three** mechanisms that the company's personnel department may use to enhance this. (6 marks)

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Energy
E-Signature
Administrative control

THIS IS THE LAST PRINTED PAGE.

Maintenance
Support

Innovation or any
uploading the slow

- Training
- Monitoring
- Controlling
- Leading

Functional