

2920/302

MANAGEMENT INFORMATION SYSTEMS

July 2017

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE III

MANAGEMENT INFORMATION SYSTEMS

3 hours

**INSTRUCTION TO CANDIDATES**

*This paper consists of EIGHT questions.*

*Answer any FIVE of the EIGHT questions in the answer booklet provided.*

*Candidates should answer the questions in English*

**This paper consists of 5 printed pages.**

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

1. (a) Outline **three** approaches used in classifying Information Systems in an organisation. (3 marks)
  - (b) The ICT manager of HeavyTec Company is required to talk to new recruits on ethical issues related to using a modern information system. Explain **three** points that the manager should include in the talk. (6 marks)
  - (c) A hospital intends to implement a new information system. Explain **three** types of information system plans that should be formulated at the strategic level. (6 marks)
  - (d) A certain organisation is in the process of acquiring a new information system.
    - (i) Outline **two** factors that could influence the choice of the system to be acquired. (2 marks)
    - (ii) Outline **three** reasons that would lead to acquisition failure of this information system. (3 marks)
2. (a) Explain **two** causes leading to maintenance of an information system. (4 marks)
  - (b) (i) Outline **four** problems that ICT managers may face while undertaking their roles in their organisations. (4 marks)
  - (ii) Outline **four** impacts caused by implementation of information systems in organisations. (4 marks)
  - (c) Placet Company intends to commence on a new information system project. Explain **two** planning methodologies that the company could use. (4 marks)
  - (d) Waops Company uses information systems in its transportation business. Describe **two** types of systems that could be ideal for the company. (4 marks)
3. (a) Explain **two** application areas of information societies in developing countries. (4 marks)
  - (b) (i) Explain **two** circumstances that would lead an organisation to make decisions of a semi structured nature. (4 marks)
  - (ii) Connet Ventures Ltd intends to establish an effective decision making process in their business. Explain **three** characteristics that these decisions should possess. (6 marks)
  - (c) Nowadays organisations are using cloud-computing technologies for their business processes. Outline **two** advantages that these organisations accrue from this approach. (2 marks)
  - (d) Distinguish between *knowledge based information system* and *office automation system* as used in management information systems. (4 marks)
4. (a) Explain **two** issues that could affect the cost of maintaining information systems. (4 marks)
  - (b) Many organisations that use information systems at their initial stages implement modules that support their transaction operations. Explain **three** functions performed by these systems. (6 marks)

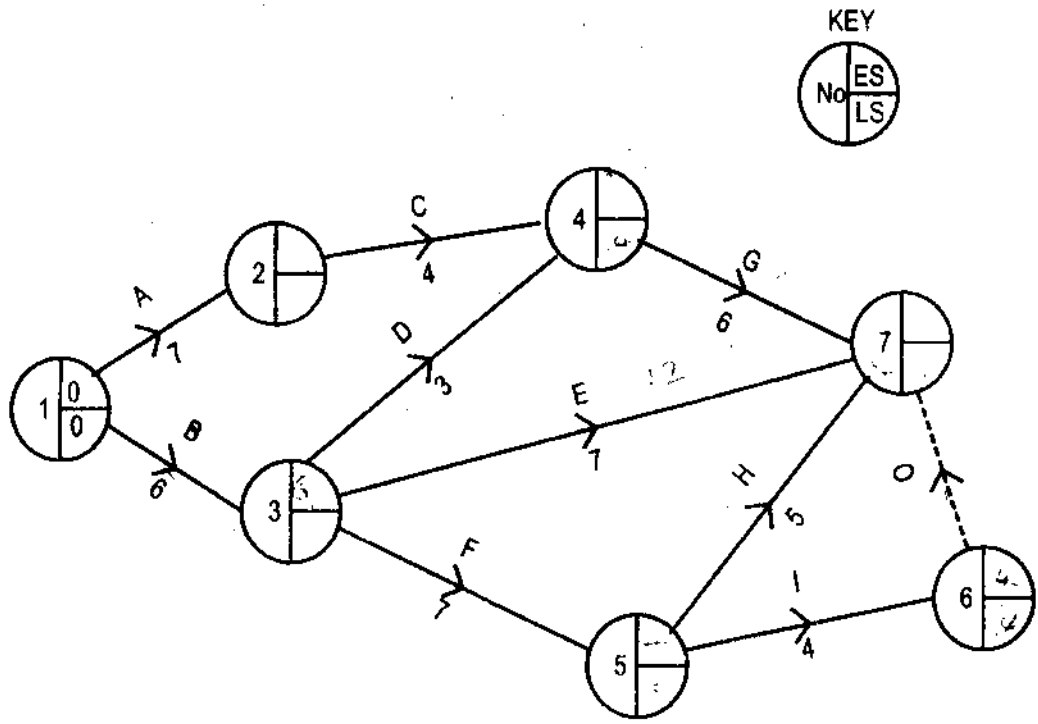


Figure 1

- (i) Re-draw the network diagram clearly indicating the *Earliest Start Times* (ES) and *Latest Start Times* (LS). (4 marks)
  - (ii) List in *ascending order* the four last activities that must be completed for the project to be deemed complete. (4 marks)
7. (a) (i) Outline **two** conflicting factors that would affect Information systems projects. (2 marks)
- (ii) State **two** application software that may be used for project management. (2 marks)
- (b) FutureTec Company specialises in resource management information systems. Explain **two** reasons that would influence an organisation to seek the company's services. (4 marks)
- (c) Explain **three** techniques that an organisation may use to prevent computer crimes. (6 marks)
- (d) The planning phase of an information system is important if success is to be realised. Explain **three** challenges that are encountered by the stakeholders during this phase. (6 marks)
8. (a) Explain the reason for creating *dummy* activities in project management network diagrams. (2 marks)
- (b) (i) Outline **four** qualities of information generated by a good information system. (4 marks)
- (ii) Explain **three** uses of information generated using information system. (6 marks)

- (c) Differentiate between *most likely* and *optimistic* times assumption in Program Evaluation Review Technique (PERT) project-management method. (4 marks)
- (d) Assume you have been hired as a system administrator in a newly established company. Outline **four** responsibilities that you would expect other employees in the company to have to ensure security of information systems. (4 marks)

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