

**CPA PART II SECTION 4**

**CS PART II SECTION 4**

**CCP PART II SECTION 4**

**MANAGEMENT INFORMATION SYSTEMS**

**FRIDAY: 30 November 2018.**

**Time Allowed: 3 hours.**

**Answer any FIVE questions.**

**ALL questions carry equal marks.**

**QUESTION ONE**

- (a) Describe each of the following changes brought by implementing information systems in organisations:
- (i) Paradigm shift. (2 marks)
  - (ii) Rationalisation. (2 marks)
- (b) Explain each of the following information system maintenance techniques:
- (i) Patching. (2 marks)
  - (ii) Configuration management. (2 marks)
- (c) A firm operates an order system that co-ordinates orders, raw materials and inventories across its three branches. Currently, the orders are processed manually at each branch and communicated to the others over the phone. The management intends to computerise the operations of the firm.
- Required:**  
Suggest three initial Information Communication Technology (ICT) professionals who might be required and their roles. (6 marks)
- (d) Copyright laws grant management information systems developers the exclusive privilege to produce and distribute their creative works.
- Highlight six challenges that are posed to these laws by information communication technology (ICT). (6 marks)  
**(Total: 20 marks)**

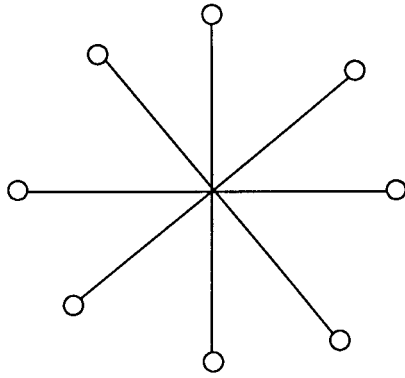
**QUESTION TWO**

- (a) NewGeneration Ltd. a telecommunication company, allows its customers to pay their bills online. James Okelo, one of their customers, discovered that he could gain access to a directory on the NewGeneration Ltd.'s server that contains personal details of a large number of customers.
- James Okelo contacted NewGeneration Ltd. and suggested that they should address this problem and send letters to all NewGeneration Ltd.'s customers informing them that their credit card details might have been accessed via the website.
- NewGeneration Ltd. refused to send out the letters to the customers.
- James Okelo then contacted a national newspaper to make his discovery public.
- Required:**  
Evaluate five legal, ethical and professional issues that might arise from the situation described above. (10 marks)
- (b) Explain four reasons why models are used in software systems development. (8 marks)
  - (c) Highlight two characteristics of a good management information system. (2 marks)
- (Total: 20 marks)**

**QUESTION THREE**

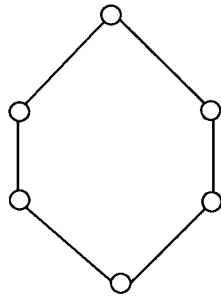
(a) Name the following network topologies:

(i)



(1 mark)

(ii)



(1 mark)

(b) Differentiate between a “webmaster” and a “webcaster”. (4 marks)

(c) Explain the following concepts in reference to information communication technology (ICT):

(i) Mouse arrest. (2 marks)

(ii) Mouse elbow. (2 marks)

(d) Distinguish between “supply chain planning systems” and “supply chain execution systems”. (4 marks)

(e) Security in cloud computing is a major concern.

**Required:**

Analyse four attributes to be considered before deploying a particular resource to the cloud. (4 marks)

(f) Using an example, explain the components that are found in an absolute filename in relation to the naming convention. (2 marks)

**(Total: 20 marks)**

**QUESTION FOUR**

(a) An office secretary saved a document in her computer. After some time, she could not remember the name and the location of the file.

**Required:**

Outline five details that are assigned to a file by the operating system which could assist in tracing the file. (5 marks)

(b) Suggest five reasons why voice input could be used as a reliable form of security in management information systems. (5 marks)

(c) Outline three examples of computer crimes in each of the following categories:

(i) Crimes that target computer networks directly. (3 marks)

(ii) Crimes facilitated by computer networks. (3 marks)

(d) Examine four reasons why system maintenance phase is necessary in system development life cycle (SDLC). (4 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

(a) Safeland Ltd. is a transport and logistics company operating in the East African region. The management of Safeland Ltd. has decided that the company no longer requires a head office and its strategic aim is to become a virtual organisation.

**Required:**

- (i) Assess three ways in which an office information system (OIS) could aid in supporting management decision making in the virtual organisation. (3 marks)
- (ii) Describe three measures that could be adopted to ensure that the information held by the organisation remains secure. (3 marks)
- (iii) Analyse five benefits of having a disaster recovery plan implemented for management information system in Safeland Ltd. (5 marks)

(b) Summarise nine activities that should be included in the strategic planning process. (9 marks)  
**(Total: 20 marks)**

**QUESTION SIX**

- (a) Examine four roles of an operating system with regard to computer program management. (4 marks)
- (b) Describe four suitable circumstances under which Rapid Application Development (RAD) approach might be used during system development. (8 marks)
- (c) Distinguish between the following terms as used in data transmission:
  - (i) "Simplex" and "full duplex". (4 marks)
  - (ii) "Synchronous" and "asynchronous". (4 marks)**(Total: 20 marks)**

**QUESTION SEVEN**

- (a) Discuss three types of Business to Consumer (B2C) e-commerce business models. (6 marks)
- (b) Distinguish between "Wi-Fi" and "Wimax" technology as used in communications. (2 marks)
- (c) Explain three roles of Transmission Control Protocol/Internet Protocol (TCP/IP) in computer networks. (3 marks)
- (d) Outline five functions of a database administrator in an information system. (5 marks)
- (e) Describe the following terms in the context of information systems:
  - (i) Office automation. (2 marks)
  - (ii) Vertically integrated information system. (2 marks)**(Total: 20 marks)**

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