

# KASNEB

## CPA PART II SECTION 4

## CS PART II SECTION 4

## CCP PART II SECTION 4

### MANAGEMENT INFORMATION SYSTEMS

**FRIDAY: 27 May 2016.**

**Time Allowed: 3 hours.**

**Answer any FIVE questions.**

**ALL questions carry equal marks.**

#### QUESTION ONE

- (a) Distinguish between the following e-commerce business models:
- (i) "E-tailer" and "market creator". (4 marks)
  - (ii) "Content provider" and "service provider". (4 marks)
- (b) Explain why the use of ICT risk management techniques is becoming increasingly important in managing information systems. (4 marks)
- (c) Describe the following ethical terms as used in an information society:
- (i) Responsibility. (2 marks)
  - (ii) Accountability. (2 marks)
  - (iii) Liability. (2 marks)
- (d) Differentiate between a "boundary" and a "constraint" as used in system theory. (2 marks)
- (Total: 20 marks)**

#### QUESTION TWO

- (a) Suggest three reasons why it could be difficult to measure the benefits of information communication technology infrastructure in an organisation. (6 marks)
- (b) Propose six ways in which information communication technology (ICT) governance could act as a foundation for delivering the ICT strategy in an organisation. (6 marks)
- (c) Highlight eight disadvantages of using a database system in an organisation. (8 marks)
- (Total: 20 marks)**

#### QUESTION THREE

- (a) ABC Ltd. is a small software development company employing 50 information communication specialists.
- Required:**
- (i) Advise the company on how it could develop an information systems strategy. (4 marks)
  - (ii) Describe three criteria which the company could use to ensure that the information systems strategy developed in (a) (i) above is sound. (6 marks)
- (b) Evaluate ten internet abuses common in a modern workplace. (10 marks)
- (Total: 20 marks)**

#### QUESTION FOUR

- (a) (i) Distinguish between “business intelligence” and “advanced analytics” as used in organisations. (4 marks)
- (ii) In a computer network, noise in signal is the random disturbance or fluctuation in analogue or digital signals.  
Explain four classifications of noise. (8 marks)
- (b) (i) Demonstrate the key difference between “backward error correction” and “forward error correction” as used in computer networks. (2 marks)
- (ii) Designing a database requires an understanding of both the business functions to model and the database concepts and features used to represent those business functions.  
Highlight three factors to consider when designing a database for an organisation. (3 marks)
- (iii) List three examples of enterprise systems used in business organisations. (3 marks)
- (Total: 20 marks)**

#### QUESTION FIVE

- (a) Explain the meaning of the following concepts as used in system theory:
- (i) Sub-optimisation. (2 marks)
- (ii) Decoupling. (2 marks)
- (iii) Equifinality. (2 marks)
- (b) The systems approach to organisational problems emphasises the need to consider both hard and soft properties of a system.  
Differentiate between “hard properties” and “soft properties”. (4 marks)
- (c) Explain the relationship between file hit rate, file organisation method and type of storage device as used in the context of information systems. (6 marks)
- (d) Identify four qualities of good management information. (4 marks)
- (Total: 20 marks)**

#### QUESTION SIX

- (a) Public domain software is a software that is not protected by copyright and thus may be duplicated by anyone at will.  
Explain three reasons behind developing and distributing public domain software. (6 marks)
- (b) Distinguish between the following forms of computer crimes and abuses:
- (i) Jamming and spamming. (2 marks)
- (ii) Cyber bullying and flaming. (2 marks)
- (iii) Sniffing and spoofing. (2 marks)
- (c) One of the emerging trends in information technology which has strategic implications for business firms is the move towards open systems.  
**Required:**
- (i) Explain the meaning of the term “open system concept”. (2 marks)
- (ii) Suggest three implications of the move towards open systems for organisations that have already invested in proprietary information systems. (6 marks)
- (Total: 20 marks)**

### QUESTION SEVEN

- (a) The introduction of information systems in organisations may lead to changes in work processes that may require re-training.

Suggest three areas of training that might be required by the following personnel:

- (i) Senior managers. (3 marks)
  - (ii) Users of the new system. (3 marks)
- (b) Identify the unique features of the following:
- (i) Digital markets. (1 mark)
  - (ii) Digital goods. (1 mark)
- (c) A firm's revenue model describes how the firm will earn revenue, generate profits, and produce a superior return on investment.

**Required:**

Discuss six e-commerce revenue models.

(12 marks)

**(Total: 20 marks)**

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