



CPA PART II SECTION 4

CS PART II SECTION 4

CCP PART II SECTION 4

MANAGEMENT INFORMATION SYSTEMS

MONDAY: 30 November 2020.

Time Allowed: 3 hours.

Answer any FIVE questions.

ALL questions carry equal marks.

QUESTION ONE

(a) Computer Aided Software Engineering (CASE) tools provide automated assistance for software development.

Required:

- (i) With reference to the above statement, describe three software development activities which may be supported by CASE tools. (3 marks)
- (ii) Examine three benefits a team of software engineers may derive from the use of CASE tools. (6 marks)
- (b) (i) Explain the meaning of the term "Information Technology (IT) Governance". (2 marks)
- (ii) Summarise four key decisions that necessitate Information Technology (IT) governance in organisations. (4 marks)
- (iii) Highlight five areas of focus for IT governance in organisations. (5 marks)

(Total: 20 marks)

QUESTION TWO

- (a) Internet of things refers to the rapidly growing network of connected objects that are able to collect and exchange data using embedded sensors. In light of the above statement, discuss four applications of the internet of things. (8 marks)
- (b) Mobile computing constitutes a new paradigm of computing which is expected to revolutionise the way computers are used. Evaluate four challenges of mobile computing. (8 marks)
- (c) Describe four benefits of real time processing. (4 marks)

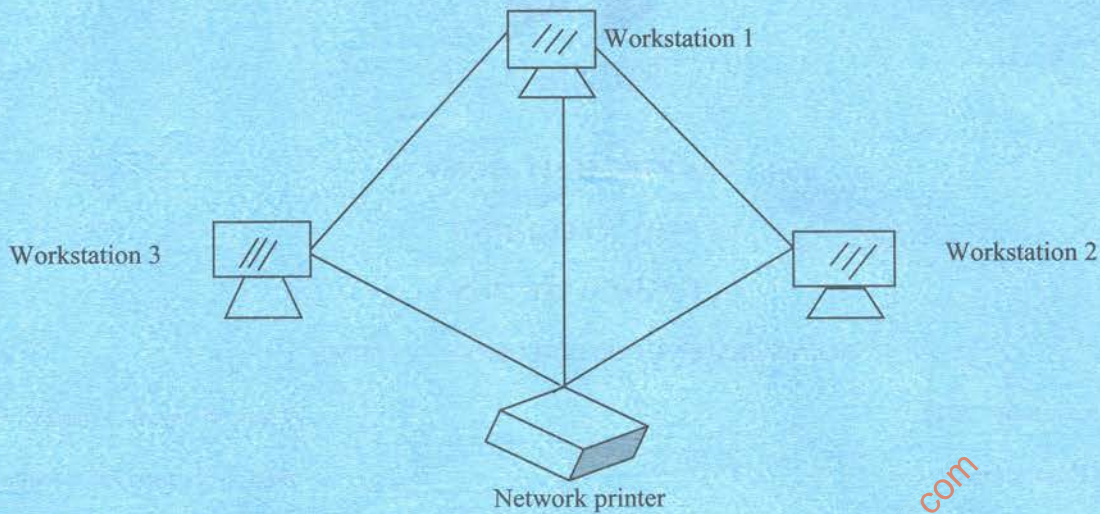
(Total: 20 marks)

QUESTION THREE

(a) Describe each of the following information system risk management methods:

- (i) Reduction. (2 marks)
- (ii) Retention. (2 marks)
- (b) Using a suitable table, explain four differences between "business process re-engineering" and "business process improvement". (8 marks)

(c) The figure below represents a type of logical computer network model.



Required:

- (i) Identify the network model. (2 marks)
 - (ii) Highlight four advantages of the identified network model. (4 marks)
 - (iii) Outline two disadvantages of the identified network model. (2 marks)
- (Total: 20 marks)**

QUESTION FOUR

(a) The management of XYZ Ltd. is considering outsourcing all future Management Information Systems (MIS) application development.

Required:

In relation to the above statement, identify:

- (i) Four benefits of outsourcing the company's future Management Information Systems (MIS) application development. (4 marks)
- (ii) Four demerits of outsourcing the company's future Management Information Systems (MIS) application developments. (4 marks)

(b) As e-commerce industry continues its rapid growth, that growth brings with it an array of new opportunities and challenges.

Required:

Examine six challenges that e-commerce companies face.

(12 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Tekh Ltd. an ICT enterprise based in East Africa installed an Enterprise Resources Planning (ERP) software one year ago. At the time of installation, the enterprise did not undertake the necessary business process changes. As a result of this, users still prefer the manual system to the new system. The enterprise is now planning to undertake the necessary changes.

Required:

Explain four obstacles that might have hampered the business process changes and suggest four possible strategies that may be used to overcome the obstacles. (8 marks)

(b) Describe three techniques for evaluating profitability of a company. (6 marks)

- (c) Differentiate between “differentiation strategies” and “focus strategies” as used in countering competition in an organisation. (4 marks)
 - (d) Outline two characteristics of an information system. (2 marks)
- (Total: 20 marks)**

QUESTION SIX

- (a) Discuss three measures that a firm may put in place to retain its market share, using a management information system. (6 marks)
 - (b) Explain the following terms as used in a management information system payroll file.
 - (i) Volatility. (2 marks)
 - (ii) Activity. (2 marks)
 - (iii) Size. (2 marks)
 - (c) Companies, industries and individuals have embarked on sending and receiving money through various mobile platforms.

Required:
Assess four reasons why mobile banking has gained popularity in modern economies. (4 marks)
 - (d) Highlight four powerful worldwide changes that have altered the business environment. (4 marks)
- (Total: 20 marks)**

QUESTION SEVEN

- (a) Differentiate between the terminologies below as used in Management Information Systems (MIS):
 - (i) “Front-office information system” and “back-office information systems”. (4 marks)
 - (ii) “Physical Files’ and “logical files”. (4 marks)
 - (b) Mwanzo College provides a wide range of courses. The college has three options of distributing the information to potential students.

Required:
For each information disseminating method below, describe one advantage and one disadvantage to the college:

 - (i) Issue a prospectus containing the details of all the courses. (2 marks)
 - (ii) Publish course information on the college website. (2 marks)
 - (iii) Publish a course information booklet that can be downloaded from the college website. (2 marks)
 - (c) Discuss the fundamental characteristics of the following elements of data communication:
 - (i) Jitter. (3 marks)
 - (ii) Timeliness. (3 marks)
- (Total: 20 marks)**