
CERTIFIED PUBLIC ACCOUNTANT

LEVEL 2 EXAMINATIONS

F2.3: INFORMATION SYSTEMS

TUESDAY: 11 JUNE 2013

INSTRUCTIONS:

- 1. Time Allowed: 3 hours 15 minutes** (15 minutes reading and 3 hours writing).
- This examination has **seven** questions and only **five** questions are to be attempted.
- Marks allocated to each question are shown at the end of the question.
- Show all your workings

QUESTION ONE

- a) Examine any five contribution of databases to data management in organisations as compared to file based systems **(10 marks)**
- b) Discuss the usefulness of networks in any organisation under the following topics
- i) High reliability **(2 marks)**
 - ii) Computer-Supported Cooperative Work **(2 marks)**
 - iii) Interactive entertainment **(2 marks)**
- c) Explain why electronic point of sale systems are important to organizations. **(4 marks)**
- (Total 20 marks)**

QUESTION TWO

- a) As an IT consultant which advice will you give an organization concerning software development using object oriented programming? **(8 marks)**
- b) In your own opinion, highlight on any six features that you would consider when choosing a programming language. **(6 marks)**
- c) In your own opinion, highlight on any six features that you would consider when choosing a programming language. **(6 marks)**
- (Total 20 marks)**

QUESTION THREE

- a) An information system is a collection of components that interact to satisfy some needs or to meet the information needs of users within an organization. Explain these components of an information system. **(12 marks)**
- b) O.A.S is a computer based system which replaces the manual based system. It's regarded as an electronic office environment. What are the objectives of office automation system? **(8 marks)**
- (Total 20 marks)**

QUESTION FOUR

- a) Differentiate between the terms Bit and Byte as used in computing.
- Bit* **(1 mark)**
- Byte* **(1 mark)**
- b) State the full meaning of the acronyms ASCII and EBCDIC **(2 marks)**
- c) List the number systems you know, and state their bases **(4 marks)**
- d) Carry out the tasks following the instructions as given below
- i) Convert the Decimal 13 to Binary **(3 marks)**
 - ii) Convert the Binary 1000001 to Decimal **(3 marks)**
 - iii) Convert Binary 101 to Octal **(3 marks)**
 - iv) Convert Decimal 453 to Hexadecimal **(3 marks)**

(Total 20 marks)

QUESTION FIVE

- a) In your own opinion describe an output device that you would use in an environment with the following characteristics:
- i) Voluminous records **(3marks)**
 - ii) Historical data **(3marks)**
 - iii) High security **(3 marks)**
- b) Explain the following classification of systems
- i. Physical vis-à-vis Abstract system **(2marks)**
 - ii. Probabilistic/Stochastic vis-à-vis Deterministic System **(2marks)**
- c) Describe the term data management system **(2 marks)**
- d) Explain the concept of Relational Databases **(5 marks)**
- (Total 20 marks)**

QUESTION SIX

- a) Analyze using real world examples the following system theory concepts
- i) Symbiosis **(1mark)**
 - ii) Synergy **(1mark)**
 - iii) Entropy **(1mark)**
 - iv) Factoring **(1mark)**
 - v) Equifinality **(1mark)**
 - vi) Decoupling **(1mark)**
- a) Explain the concept adopted by the operating system in order to deal with large programs that cannot fully fit in memory **(4 marks)**
- c) Explain why the following terms are important in acquisition of a computer
- i) HERTZ **(2 marks)**
 - ii) BYTES **(2 marks)**
- Describe the MICR technology highlighting its advantages and disadvantages **(6 marks)**
- (Total 20 marks)**

QUESTION SEVEN

- a) Discuss how the following concepts are facilitated in order to address Computer security in a typical organization of your own choice dealing with financial transactions
- i) Confidentiality **(4 marks)**
 - ii) Integrity **(4 marks)**
 - iii) Availability **(3 marks)**

- b) What is the main purpose of Logical access Controls? **(1 mark)**
- c) Explain the applicability of the following techniques in a commercial environment
- i) Smart cards **(4 marks)**
 - ii) Encryption **(4 marks)**
- (Total 20 marks)**
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End of question paper