

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD
A Committee of the Council of ICPAU

INFORMATION TECHNOLOGY - PAPER 5(i)

JUNE 1998

INSTRUCTIONS TO CANDIDATES

1. Time allowed: 2 hours 30 minutes.
2. Attempt all questions in Section A, and any three questions from Section B.
3. Section A has ten compulsory questions each carrying 1½ marks.
4. Section B has five questions and only three questions are to be attempted. Each question carries 15 marks.
5. Please read further instructions on the answer book.

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SECTION A

Question 1

- (i) Any business system must be able to choose the computer that supports its information system. There is one type of computers which process data that is represented in the form of discrete values (e.g. 0,1,2,3,) by operating on it in steps.

What name is given to this type of computer system ?

- (a) Analogue computer system.
 - (b) Discrete computer system.
 - (c) Digital computer system.
 - (d) Micro computer system.
- (ii) Which of the following does **not** apply to **both** Magnetic tapes and magnetic disks ?
- (a) Serial access.
 - (b) Direct access.
 - (c) Sequential file organisation.
 - (d) Serial file organisation.
- (iii) Which of the following computer networks system does **not** need a Modem for data communication ?
- (a) LANs
 - (b) WANs
 - (c) Distributed system
 - (d) E-Mail system.
- (iv) Which of the following Hardware components has the most complex technology within a compute system ?
- (a) Processor device.
 - (b) CD - ROM.
 - (c) Magnetic Storage Media.
 - (d) V.D.U.lwa

- (v) Modern Computer systems now have automatic computer software for the capture of products and pricing items using barcodes and electronic sensors without the need of keyboard to key in data. They are used extensively in shopping malls and departments.

What is the best term used to describe such a system ?

- (a) Business Information System
 - (b) Automatic Teller machine.
 - (c) Stock Control System
 - (d) Electronic Point of Sale System.
- (vi) Any one who breaks into a locked office and reads confidential files is morally no different from any one who has unauthorised access to an on-line computer system. What term best describes such computer crime ?
- (a) Fraud.
 - (b) Scavenging.
 - (c) Hacking.
 - (d) Eavesdropping.
- (vii) Which of the following specifications is a Micro-processor specification ?
- (a) An intel 486, with 75 MHz.
 - (b) Compact micro-computer system.
 - (c) SVGA Monitor.
 - (d) Lap top micro-computer.
- (viii) Which of the following programming languages are geared towards users' computing ?
- (a) Machine language.
 - (b) High level languages.
 - (c) 4GL
 - (d) Procedural languages.
- (ix) Computer Systems in one bank in Kampala operate in such a way that many users are allowed access to the processor time with each user gaining access in intervals of less than a second and priority scheduling allows for more rapid response to all users.

What terminology is used to describe the kind of processor found in such a bank ?

- (a) Multi-Access processor
- (b) Batch Processing.
- (c) Time-sharing system.
- (d) Job-control system.

- (x) A database is the organisation's information resource which must be organised in a form that satisfies the organisational information requirements. One way of organising is by having data in tables. What language best describes the data base system which has many tables in which the organisational data is kept with no duplication of data ?
- (a) Normalisation.
 - (b) Relations.
 - (c) Data integrity.
 - (d) Conceptual Database.

SECTION B

Question 2

- (a) List and briefly describe the various stages of the information systems' life cycle. *(12 marks)*
- (b) In one of the stages above identify the level at which the role of a Chief Accountant may be vital. *(3 marks)*

Question 3

Describe the following terms as they may relate to Information Technology.

- (a) C.P.U. *(5 marks)*
- (b) MODEM *(5 marks)*
- (c) Client-Server computing. *(5 marks)*

Question 4

- (a) With the aid of a diagram, explain the program development life cycle. *(12 marks)*
- (b) Differentiate between a compiler and an interpreter. *(3 marks)*

Question 5

An important part of the business information system is software acquisition. List five things that the purchasers of a software may require as part of the purchase. *(15 marks)*

Question 6

What data preparation and data validation checks may be applied to input data to assist in ensuring that data is reliable and accurate for Computer processing ? Give full details of each method described. *(15 marks)*