

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

ATC(U) EXAMINATIONS

LEVEL TWO

INFORMATION SYSTEMS – PAPER 8

WEDNESDAY, 23 JUNE 2004

INSTRUCTIONS TO CANDIDATES

1. Time allowed: **3** hours.
2. Attempt **all** questions in Section **A**, and any **four** questions from Section **B**.
3. Section **A** has **twenty** compulsory multiple-choice questions, each carrying 1 mark.
4. Section **B** has **six** questions and only **four** questions are to be attempted. Each question carries 20 marks.
5. Please read further instructions on the answer book.

SECTION A

Question 1

- (i) Which of the following is not a definition of information?
 - (a) Data that has been interpreted and understood by the recipient.
 - (b) Data that has been processed for a purpose.
 - (c) Data that has been recorded on an event or set of facts.
 - (d) Data that has been processed so that it is meaningful.
- (ii) Which of the following is not an unstructured decision?
 - (a) How should we process a sales order?
 - (b) Which business area should the organisation be in?
 - (c) How should the organisation be structured?
 - (d) What should our distribution channels be?
- (iii) To identify a system, we need to determine:
 - (a) where its boundaries are.
 - (b) why it exists.
 - (c) how dynamic and complex it is.
 - (d) what the separate parts are and how they interrelate.
- (iv) A cybernetic system is that:
 - (a) where end results can be predicted with certainty.
 - (b) which reacts to stimuli in a learning pattern.
 - (c) whose state can be predicted only within certain limits.
 - (d) which remains in control despite changes in the environment.
- (v) Which of the following is not a computer printer?
 - (a) Dot matrix printer.
 - (b) Ink jet printer.
 - (c) Laserjet printer.
 - (d) Microfilm printer.
- (vi) Operating systems software allows the following functions:
 - a) Communication between the operator and the computer.
 - b) Control of the processor and storage hardware.
 - c) Management of files.
 - d) Improving the way the operator works.

(vii) Communication between a system and its user can be put into the following categories:

- (i) input design, document and code design.
- (ii) Dialogue design and output design.
- (iii) Input design, code design, dialogue and output design.
- (iv) Document and code design only.
- (a) (i) and (ii).
- (b) (i), (ii), (iii) and (iv).
- (c) (i) and (iii).
- (d) (ii) and (iv).

(viii) Verification is a test of the system design to ensure that:

- (a) The design fulfils the requirements of the business.
- (b) The design involves specifying controls of the business.
- (c) The design chosen is the best available and is error free.
- (d) The design starts with individual modules.

(ix) Another word for data about data is:

- (a) data dictionary.
- (b) metadata.
- (c) data reference.
- (d) address.

(x) A software bug is:

- (a) used by the business to develop information systems.
- (b) a user interface to meet product specifications.
- (c) an error in a program caused by human error.
- (d) a measure which indicates the quality of software.

(xi) Which of the following is not a stage of software testing?

- (a) Development testing.
- (b) Program testing.
- (c) System testing.
- (d) Acceptance testing.

(xii) A computer network is:

- (a) A number of interrelated components that work together.
- (b) A network system that makes use of information.
- (c) The use of computer and communication technology.
- (d) A communication system that links two or more computers.

- (xiii) Elapsed time in data processing implies:
- (a) Time factor measured in terms of hours.
 - (b) How long a task will take.
 - (c) Effort in the total amount of work.
 - (d) Time measured to process information.
- (xiv) Which of the following is not a fact finding method?
- (a) Personal interviews.
 - (b) Feasibility research.
 - (c) Questionnaires.
 - (d) Sampling.
- (xv) Which of the following is an example of a computer virus?
- (i) Trojans.
 - (ii) Worms.
 - (iii) Trap doors.
 - (iv) Logic bombs.
 - (v) Time bombs.
- (a) (i), (iv) and (v).
 - (b) (iv) and (v).
 - (c) (i), (iii), (iv) and (v).
 - (d) (i), (ii), (iii), (iv) and (v).
- (xvi) The main elements affecting a project are:
- (a) Time, costs, resources and quality.
 - (b) Time, costs, capital and machinery.
 - (c) Manpower, machinery and capital.
 - (d) Capital, resources, time and manpower.
- (xvii) What of the following is a software monitor?
- (a) A computer system that provides automatic logs.
 - (b) A computer program that records data about the application in use.
 - (c) A software used to record data.
 - (d) A software used to analyse data.
- (xviii) A local area network refers to:
- (a) A computer network that spans a limited geographical area.
 - (b) A computer network covering a large area.
 - (c) A computer network linking two or more components of a computer.
 - (d) A computer network that is connected to the internet.

- (xix) Replication ensures that:
- (a) The server is fast enough to replicate resources.
 - (b) The versions of data stored on the different servers are consistent.
 - (c) The database is checked with server vendors.
 - (d) There is enough space for storage.
- (xx) In the context of computers, audit refers to:
- (a) Monitoring all backup procedures to ensure they are used.
 - (b) Monitoring the actions of employees to ensure they are proper to avoid thefts.
 - (c) Monitoring the hardware and software resources of a business.
 - (d) Monitoring to prevent unauthorised access to information.

SECTION B

Question 2

- (a) Define a data process. **(2 marks)**
 - (b) Define informal communication, giving two examples. **(6 marks)**
 - (c) Information can be categorised according to its use.
Explain three categories of information, giving one user for each. **(12 marks)**
- (Total 20 marks)**

Question 3

- (a) (i) What do you understand by office automation? **(2 marks)**
 - (ii) Give two examples of office automation tools. **(1 mark)**
 - (iii) Give three advantages of office automation. **(3 marks)**
 - (iv) Give two disadvantages of office automation. **(2 marks)**
 - (b) The internet has become a common tool for both business and individuals.
 - (i) Give four benefits of using the internet. **(6 marks)**
 - (ii) Give four problems of using the internet. **(6 marks)**
- (Total 20 marks)**

Question 4

- (a) Briefly explain three factors considered in selecting a system changeover method. **(6 marks)**
 - (b) Explain the difference between parallel running and phased implementation. **(4 marks)**
 - (c) Implementation of information systems involves both tangible costs and benefits.
 - (i) Give four tangible costs that can arise. **(4 marks)**
 - (ii) Briefly explain three tangible benefits that can arise. **(6 marks)**
- (Total 20 marks)**

Question 5

- (a) What is the difference between an information warrior and a hacker? **(4 marks)**
 - (b) Give any four categories of computer crime. **(4 marks)**
 - (c) What are the problems of developing a computer system without ensuring appropriate links are established and maintained? **(6 marks)**
 - (d) Give any three Data Protection Act principles on personal data. **(6 marks)**
- (Total 20 marks)**

Question 6

- (a) What do you understand by a project? **(4 marks)**
 - (b) Give four characteristics of a project. **(6 marks)**
 - (c) Briefly explain five threats to the success of a project. **(10 marks)**
- (Total 20 marks)**

Question 7

- (a) Give two types of decision tables. **(4 marks)**
 - (b) Give four advantages of decision tables. **(6 marks)**
 - (c) What do you understand by CASE tools in system development? **(4 marks)**
 - (d) Briefly explain two advantages of CASE tools. **(4 marks)**
 - (e) Sometimes entity life histories are used in system development. Define an entity. **(2 marks)**
- (Total 20 marks)**