

# THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

*A Committee of the Council of ICPAU*

## ATC(U) EXAMINATIONS

### LEVEL TWO

#### INFORMATION SYSTEMS – PAPER 8

**THURSDAY, 15 DECEMBER 2005**

#### 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) 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.
- (ii) Which of the following is not an operating system?
- (a) Utilities programme.
  - (b) Microsoft DOS.
  - (c) Windows 95.
  - (d) Novell Netware.
- (iii) What name is given to the kind of computing technology where some of the hardware is dedicated to providing a particular service to other computers (workstations) with interconnections for data communications?
- (a) Client-server computing.
  - (b) Networked computer.
  - (c) Distributed computing.
  - (d) Local area network.
- (iv) Which of the following printers is **not** a character printer?
- (a) Star Dot-Matrix Printer.
  - (b) Epson Dot-Matrix Printer.
  - (c) IBM Laser Printer.
  - (d) Canon Inkjet Printer.
- (v) Which of the following is **not** an example of a Graphical User Interface?
- (a) DOS.
  - (b) WINDOWS.
  - (c) WORD.
  - (d) ACCESS.
- (vi) The main advantage that secondary storage has over primary storage (memory) is:
- (a) Erasability.
  - (b) Permanency.
  - (c) Random access.
  - (d) Faster access.

- (vii) Which of the following categories of software would most likely be customised for an organisation?
- (a) Utility software.
  - (b) Operating system.
  - (c) Application programmes.
  - (d) Programming languages.
- (viii) Which of the following statements is false?
- (a) A help screen is often a feature of a user friendly programme.
  - (b) A mouse driven program can use both keyboard and mouse as input devices.
  - (c) Function help on a keyboard enables the user to enter instructions quickly to the computer in order to carry out operations with an application programme.
  - (d) Pull down menus are normally used with programmes that do not need a mouse for input.
- (ix) Which of the following categories of viruses describes viruses designed like legitimate programmes?
- (a) File viruses.
  - (b) Boot sector viruses.
  - (c) Trojan horses.
  - (d) Macro viruses.
- (x) A program is user friendly if it:
- (a) contains useful device drivers.
  - (b) can enable users to access a DOS prompt.
  - (c) has user wizards.
  - (d) is difficult to erase.
- (xi) Which of the following best describes the way indexed files are accessed?
- (a) Sequentially and directly.
  - (b) Sequentially only.
  - (c) Randomly only.
  - (d) Ascending and descending order.
- (xii) Which of the following is least likely to offer protection against remote access to data?
- (a) Passwords.
  - (b) Encryption.
  - (c) Back-ups.
  - (d) User number.

- (xiii) The storage space occupied by an equivalent of a character is usually a:
- (a) Byte.
  - (b) Disk.
  - (c) Track.
  - (d) Sector.
- (xiv) Which of the following is an example of a storage device?
- (a) RAM.
  - (b) Monitor.
  - (c) Printer.
  - (d) Digital Camera.
- (xv) The following are examples of browser software except:
- (a) Netscape navigator.
  - (b) Explorer.
  - (c) Mosaic.
  - (d) Outlook express.
- (xvi) Before a disk is used for storing information, it has to be prepared in a process referred to as:
- (a) Scanning.
  - (b) Formatting.
  - (c) Defragging.
  - (d) Labeling.
- (xvii) Computer based information applications designed to work very fast with short response times are known as:
- (a) real time applications.
  - (b) application packages.
  - (c) demand driven applications.
  - (d) specialist packages.
- (xviii) A forecast of demand for salon services offered by a hair salon business organisation is an example of information that is categorised as:
- (a) Strategic.
  - (b) Tactical.
  - (c) Organizational.
  - (d) Expert.

- (xix) A program that tracks road side parking fees defaulters is an example of software that is referred to as:
- (a) systems software.
  - (b) application software.
  - (c) security software.
  - (d) spread sheet software.
- (xx) The time between the users request and the computers reply is called:
- (a) concurrent time.
  - (b) allocation time.
  - (c) response time.
  - (d) event time.

## SECTION B

### Question 2

Clearly explain the differences between:

- (a) Positive and negative feedback. (4 marks)
  - (b) Data and information. (4 marks)
  - (c) Open and closed systems. (4 marks)
  - (d) Intranet and extranet. (4 marks)
  - (e) Data mining and data warehousing. (4 marks)
- (Total 20 marks)**

### Question 3

- (a) What do you understand by the term e-mail? (2 marks)
  - (b) Give **three** advantages of email. (3 marks)
  - (c) Give **three** disadvantages of email. (3 marks)
  - (d) Explain the following email features:
    - (i) Attachments. (2 marks)
    - (ii) Spam. (2 marks)
    - (iii) Signature. (2 marks)
  - (e) What is a database management system? 2 marks)
  - (f) How does a database management system differ from a flat file database? (2 marks)
  - (g) Give **two** advantages of a database management system over a flat file database. (2 marks)
- (Total 20 marks)**

**Question 4**

- (a) Briefly describe the following components of a computer system:
- (i) Input device. (2 marks)
  - (ii) Processor. (2 marks)
  - (iii) Storage device. (2 marks)
  - (iv) Output device. (2 marks)
- (b) What is a legacy system? (2 marks)
- (c) Write short notes on the following input devices:
- (i) joystick. (2 marks)
  - (ii) bar code reader. (2 marks)
  - (iii) light pen. (2 marks)
- (d) Storage devices on a computer system can be categorized as **primary** or **secondary**. What is the difference between the two? (4 marks)
- (Total 20 marks)**

**Question 5**

Developers, managers and users of computer based information systems are expected to behave in a professional manner at all times.

- (a) What do you understand by the following?
- (i) Professionalism. (2 marks)
  - (ii) Ethics. (2 marks)
  - (iii) Morality. (2 marks)
- (b) What do you understand by the term “code of conduct”? (2 marks)
- (d) Who are computer criminals? (2 marks)
- (e) Write brief notes on the following computer criminals:
- (i) Information Warriors. (2 marks)
  - (ii) Hackers. (2 marks)
- (f) Briefly explain the purpose of the following legislation designed to fight computer crime:
- (i) Data Protection Act. (2 marks)
  - (ii) Computer Misuse Act. (2 marks)
- (g) In the context of information systems, what do you understand by the term “electronic eavesdropping”? (2 marks)
- (Total 20 marks)**

**Question 6**

Before a computer system is fully operational, it is important that it is tested.

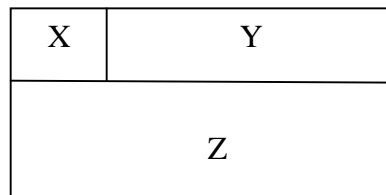
- (a) What is a software bug? **(2 marks)**
- (b) Write brief notes on the following tests:
  - (i) Module or unit testing. **(2 marks)**
  - (ii) System testing. **(2 marks)**
  - (iii) Database volume testing. **(2 marks)**
- (c) Explain the following changeover methods:
  - (i) Parallel Running. **(2 marks)**
  - (ii) Phased Implementation. **(2 marks)**
  - (iii) Pilot System. **(2 marks)**
  - (iv) Direct Changeover. **(2 marks)**
- (d) What is a post-implementation review? **(2 marks)**
- (e) What is a software patch? **(2 marks)**

**(Total 20 marks)**

**Question 7**

The first task in systems analysis is to conduct a fact-finding exercise.

- (a) Briefly explain **four** fact-finding methods. **(8 marks)**
- (b) Briefly describe the following diagramming tools:
  - (i) Data flow diagrams. **(2 marks)**
  - (ii) Entity relationship diagrams. **(2 marks)**
  - (iii) Database volume testing. **(2 marks)**
- (c) One of the symbols used in data flow diagrams is indicated below:



- (i) What is the name used to describe the symbol above? **(2 marks)**
  - (ii) What information is included in each of the boxes X, Y and Z? **(6 marks)**
- (Total 20 marks)**