

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

ATC(U) EXAMINATIONS

LEVEL TWO

INFORMATION SYSTEMS – PAPER 8

THURSDAY, 21 JUNE 2007

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.

© 2007 Public Accountants Examinations Board

SECTION A

Question 1

- (i) Which of the following is an Application program?
 - (a) DOS.
 - (b) Novell.
 - (c) Adobe premiere.
 - (d) Windows NT.
- (ii) What name is given to the use of multiple computers networked throughout a wide geographical area, or the world via the Internet, in order to solve a single problem?
 - (a) Client server computing.
 - (b) Networked computing.
 - (c) Distributed computing.
 - (d) Peer to peer computing.
- (iii) A device that "takes a picture" of something and turns it into a computerized image is a:
 - (a) Server.
 - (b) Scanner.
 - (c) Printer.
 - (d) Computer.
- (iv) Which of the following statements is correct?
 - (a) Computers are faster than humans at mathematical calculations.
 - (b) Computers can be programmed to diagnose sicknesses.
 - (c) Computers can be programmed to write poetry.
 - (d) Computers can diagnose and treat medical conditions better than doctors.
- (v) Which of the following statements is **FALSE**?
 - (a) Hardware is a term used to describe the physical parts of a computer.
 - (b) Software is the term that is used to describe the instructions that cause the computer systems to behave in a given way.
 - (c) A worm is one of the computer viruses that replicate themselves.
 - (d) Data protection is the concept that information relating to individuals collected and used by organizations is not necessarily subject to any regulations.

- (vi) A pointer used to identify where data is located on a computer is called a:
- (a) scanner.
 - (b) cursor.
 - (c) monitor.
 - (d) mouse.
- (vii) is a program that has been written by people with malicious intent.
- (a) A computer virus
 - (b) Bootsrp
 - (c) Sentinel program
 - (d) Antivirus
- (viii) Which of the following is **NOT** a phase of the systems development process?
- (a) Integration.
 - (b) Initiation.
 - (c) Development.
 - (d) Operation and maintenance.
- (ix) The process of building or acquiring and configuring hardware, software, and other resources needed to perform both the required IT-related function and the required functions not related to IT is called:
- (a) Initiation.
 - (b) Development.
 - (c) Documentation.
 - (d) Operations and maintenance.
- (x) When companies with substantial investments in information technology have no better competitive success than similar companies without those investments, it is called:
- (a) Zero-based development.
 - (b) Analysis paralysis.
 - (c) Productivity paradox.
 - (d) Synthesized paradox.
- (xi) The systems development approach that uses a prescribed sequence of steps and deliverables to move reliably from user requirements to an information system in operation is called:
- (a) Prototyping.
 - (b) End user development.
 - (c) Operations development.
 - (d) Traditional systems development life cycle.

- (xii) The process of creating plans for training, conversion and acceptance testing is called:
- (a) Implementation planning.
 - (b) Acceptance planning.
 - (c) Documentation.
 - (d) Functional requirements.
- (xiii) The method of conversion where a system is implemented for a small group of users who are enthusiastic about the system improvements is called:
- (a) Phased implementation.
 - (b) Pilot implementation.
 - (c) Shut off old system and turn on new system.
 - (d) Running in parallel.
- (xiv) UPS stands for:
- (a) Universal port serial.
 - (b) Up-line provider service.
 - (c) Uninterruptible power supply.
 - (d) Uniform page source.
- (xv) Passwords are applied to files in order to:
- (a) Assist in maintenance.
 - (b) Speed up access.
 - (c) Prevent unauthorized access.
 - (d) Allow encryption.
- (xvi) The term HTTP stands for:
- (a) Hyper terminal tracing programme.
 - (b) Hypertext transfer programme.
 - (c) Hypertext tracing protocol.
 - (d) Hypertext transfer protocol.
- (xvii) Which of the following is **NOT** a network topology?
- (a) Relational.
 - (b) Star.
 - (c) Bus.
 - (d) Ring.

- (xviii) A proxy server is used as the computer:
- (a) With external access.
 - (b) Acting as a backup.
 - (c) Performing file handling.
 - (d) Accessing user permissions.
- (xix) Which of the following would breach the integrity of a system?
- (a) Locking the room to prevent theft.
 - (b) Full access rights for all users.
 - (c) Fitting the system with an anti-theft device.
 - (d) Protecting the system against wilful or accidental damage.
- (xx) A gigabyte is equal to:
- (a) 1024 bytes.
 - (b) a million megabytes.
 - (c) a thousand kilobytes.
 - (d) 1024 megabytes.

SECTION B

Question 2

- (a) What do you understand by a computer network?
(2 marks)
- (b) Briefly describe the following common types of computer networks:
- (i) Local Area Networks (LAN). (2 marks)
 - (ii) Wide Area Networks (WAN). (2 marks)
 - (iii) Intranets. (2 marks)
 - (iv) Metropolitan Area Networks (MAN). (2 marks)
 - (v) Extranets. (2 marks)
- (c) Telecommuting is increasingly becoming common in today's business world.
- (i) Define the term "telecommuting".
(2 marks)
 - (ii) Give **two** advantages and **two** disadvantages of telecommuting to an employer.
(6 marks)
- (Total 20 marks)**

Question 3

- (a) Explain the following terms, giving examples where possible:
- (i) Input device. (2 marks)
 - (ii) Processor. (2 marks)
 - (iii) Output device. (2 marks)
 - (iv) Computer Peripheral. (2 marks)
 - (v) Motherboard. (2 marks)
- (b) Give **four** factors that you would consider when purchasing a computer. (4 marks)
- (c) Briefly explain how computer systems can be applied in a financial institution **OR** an educational institution. (6 marks)
- (Total 20 marks)**

Question 4

- (a) Distinguish between:
- (i) Data and information. (3 marks)
 - (ii) Formal and informal information systems. (3 marks)
- (b) Give and briefly explain **six** qualities of good information. (9 marks)
- (c) Explain the physical controls that can be instituted to ensure security of an information system. (5 marks)
- (Total 20 marks)**

Question 5

- (a) Distinguish between systems software and application software and give two examples of each. (8 marks)
- (b) Explain four functions of an operating system. (8 marks)
- (c) Distinguish between Graphical User Interface and Command Line Interface, giving examples. (4 marks)
- (Total 20 marks)**

Question 6

- (a) Define the term “prototyping”.
(2 marks)
 - (b) Give **three** modern tools used in prototypes.
(3 marks)
 - (c) Give **three** advantages and **three** disadvantages of prototyping.
(6 marks)
 - (d) What is meant by outsourcing in the context of application software?
(3 marks)
 - (e) Give **three** advantages and **three** disadvantages of outsourcing of application software.
(6 marks)
- (Total 20 marks)**

Question 7

- (a) State **four** stages in the systems development life cycle.
(4 marks)
- (b) Define the term “fact finding” in relation to systems investigation and analysis.
(2 marks)
- (c) Briefly explain **three** fact finding methods.
(6 marks)
- (d) The design stage of a new system can conveniently be divided into the following elements:
 - (i) Outputs.
 - (ii) Inputs.
 - (iii) Files.
 - (iv) Procedures.

Required:

Explain each of the above elements.

(8 marks)
(Total 20 marks)