

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

ATC(U) EXAMINATIONS

LEVEL TWO

INFORMATION SYSTEMS – PAPER 8

WEDNESDAY, 18 JUNE 2008

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) Modems are used in many computers to facilitate data exchange. The demodulation process involves:
 - (a) converting digital signals to analogue signals.
 - (b) changing serial access.
 - (c) converting analogue signals to digital signals.
 - (d) terminating mobile signals.
- (ii) Which of the following is an example of temporary storage?
 - (a) ROM.
 - (b) RAM.
 - (c) Hard disk.
 - (d) Flash disk.
- (iii) Computer memory is measured in units called:
 - (a) megahertz.
 - (b) bits per second.
 - (c) KVA.
 - (d) bytes.
- (iv) The resolution of a computer monitor or screen is measured in:
 - (a) megahertz.
 - (b) pixels.
 - (c) pages per minute.
 - (d) bits per second.
- (v) The Computer Misuse Act:
 - (a) guards against illegal access to a computer's software and data.
 - (b) guards against processing of personal data.
 - (c) counteracts threat to privacy.
 - (d) restricts transfer of personal data.
- (vi) The method of running several different programs on a computer apparently at the same time is called:
 - (a) program coding.
 - (b) coupling.
 - (c) multitasking.
 - (d) decentralized processing.
- (vii) Which of the following is an impact printer?
 - (a) Dot-matrix.
 - (b) LaserJet.
 - (c) Inkjet.
 - (d) Bubble jet.

- (viii) Which of the following devices digitizes graphics?
- (a) EPOS.
 - (b) HP LaserJet.
 - (c) Scanner.
 - (d) Plotter.
- (ix) The process by which a similar document is produced and sent to a number of recipients or individuals is referred to as:
- (a) replicating.
 - (b) advanced word-processing.
 - (c) mail merging.
 - (d) batch processing.
- (x) Breaking of the law by copying software bought by somebody else is referred to as:
- (a) encapsulation.
 - (b) encryption.
 - (c) software piracy.
 - (d) industrial espionage.
- (xi) Which of the following is **NOT** a logical computer security measure?
- (a) Encryption of data.
 - (b) Inserting firewalls.
 - (c) Engaging security guards.
 - (d) Backup procedures.
- (xii) Which of the following systems attempt to replace a human expert in a particular field?
- (a) Knowledge-Based Systems.
 - (b) Transaction Processing Systems.
 - (c) Executive Information Systems.
 - (d) Management Information Systems.
- (xiii) Digital Versatile Disk (DVD) technology uses a file access method known as:
- (a) serial access.
 - (b) Sequential access.
 - (c) direct-sequential access.
 - (d) random access.
- (xiv) Which of the following is generally **NOT** a computer input device?
- (a) Keyboard.
 - (b) Light pen.
 - (c) Monitor.
 - (d) Joystick.

- (xv) Bar coding is widely used on most traded products in the retail sector. Which of the following statements is **NOT** true about bar coding?
- (a) Saves time.
 - (b) Reduces input errors.
 - (c) Uses voice recognition methods.
 - (d) Assists in stock recording and re-ordering.
- (xvi) System design as a stage in the systems development life cycle involves the following **EXCEPT**:
- (a) specifying the system.
 - (b) program coding.
 - (c) screen layouts.
 - (d) business rules.
- (xvii) System investigation involves:
- (a) problem definition.
 - (b) debugging.
 - (c) measures to avoid inaccuracies.
 - (d) fact-finding.
- (xviii) The buying and selling of products or services over electronic systems such as the internet and other computer networks is referred to as:
- (a) e-government.
 - (b) e-learning.
 - (c) e-commerce.
 - (d) e-mail.
- (xix) Which of the following is a fact-finding technique?
- (a) Record inspection.
 - (b) Risk analysis.
 - (c) System documentation.
 - (d) Accounts synchronizing.
- (xx) One way of achieving rapid application development of computer software is:
- (a) documentation.
 - (b) prototyping.
 - (c) object oriented programming.
 - (d) normalization.

SECTION B

Question 2

- (a) Write brief notes on the following:
- (i) Graphical User Interface (GUI). (2 marks)
 - (ii) Outsourcing computer services. (2 marks)
 - (iii) Bespoke application. (2 marks)
 - (iv) Soak testing. (2 marks)
 - (v) Preventive system maintenance. (2 marks)
- b) Distinguish between the following:
- (i) Data validation and data verification. (2 marks)
 - (ii) Centralised processing and distributed processing. (2 marks)
 - (iii) Primary storage and secondary storage. (2 marks)
 - (iv) Encryption and hacking. (2 marks)
 - (v) Assembly language and machine code. (2 marks)

(Total 20 marks)

Question 3

- (a) Describe the stages of the systems development life cycle. (10 marks)
- (b) Explain the different ways of gathering user requirements for use in developing a new computer system. (10 marks)

(Total 20 marks)

Question 4

Personal computers are most commonly used today in business, therefore great care should be taken prior to acquisition.

- (a) Describe the considerations to take into account when choosing computer hardware? (10 marks)
- (b) What considerations should you take into account when selecting computer software? (10 marks)

(Total 20 marks)

Question 5

Computer installations in business establishments are vulnerable to various attacks and therefore strict security measures need to be put in place.

- (a) What are the most common threats to computer installations?
(10 marks)
- (b) Describe the measures that promoters of businesses should put in place to counter these threats.

(10 marks)
(Total 20 marks)

Question 6

Although the internet has become a common and useful tool for business, it is increasingly attacked by computer viruses.

- (a) Describe the different types of viruses that affect computers.
(10 marks)
- (b) What security issues should be put in place to prevent virus attacks to computer installations?

(10 marks)
(Total 20 marks)

Question 7

- (a) What do you understand by a computer network?
(2 marks)
- (b) Describe **four** different types of computer networks.
(8 marks)
- (c) Give **five** advantages of computer networks.
(5 marks)
- (d) Give **five** shortcomings of computer networks.

(5 marks)
(Total 20 marks)