

# THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

*A Committee of the Council of ICPAU*

## ATC(U) EXAMINATIONS

### LEVEL TWO

#### INFORMATION SYSTEMS - PAPER 8

**FRIDAY, 10 DECEMBER 2010**

#### INSTRUCTIONS TO CANDIDATES

1. Time allowed: **3 hours 15 minutes.**

The first 15 minutes of this examination have been designated for reading time. You may not start to write your answer during this time.

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, before you attempt any questions.

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**SECTION A**

**Question 1**

- (i) Fiber optics technology has the following characteristics **EXCEPT**:
- (a) resistance to noise.
  - (b) large carrying capacity.
  - (c) wireless energy transfer.
  - (d) high speed.
- (ii) The following are computer operating systems **EXCEPT**:
- (a) DOS.
  - (b) Microsoft Office.
  - (c) Linux.
  - (d) Unix.
- (iii) The resolution of computer images is determined by:
- (a) pixels.
  - (b) bytes.
  - (c) megahertz.
  - (d) processing speed.
- (iv) A Windows interface has the following features **EXCEPT**:
- (a) command line.
  - (b) icons.
  - (c) scroll-bars.
  - (d) popup windows.
- (v) The physical part of a computer system is called:
- (a) hardware.
  - (b) protocol.
  - (c) software.
  - (d) firmware.
- (vi) A software used to retrieve, present and traverse information resources on the World Wide Web (www) is:
- (a) website.
  - (b) web browser.
  - (c) internet protocol.
  - (d) file transfer protocol.

- (vii) Which of the following is **NOT** a computer input device?
- (a) Monitor.
  - (b) Scanner.
  - (c) Flash USB disk.
  - (d) Speaker.
- (viii) The following are characteristics of good data **EXCEPT**:
- (a) timeliness.
  - (b) completeness.
  - (c) ease of storage.
  - (d) accuracy.
- (ix) Acceptance testing involves the following **EXCEPT**:
- (a) user acceptance testing.
  - (b) unit testing.
  - (c) alpha and beta testing.
  - (d) operational testing.
- (x) Random access memory (RAM) is:
- (a) permanent computer storage.
  - (b) volatile memory.
  - (c) secondary storage.
  - (d) non-volatile memory.
- (xi) The following are key factors to be considered while installing computer hardware **EXCEPT**:
- (a) memory size.
  - (b) size of printer.
  - (c) cost of equipment.
  - (d) software maintenance.
- (xii) Which of the following is a major feature of office automation?
- (a) Low efficiency.
  - (b) Increased unemployment.
  - (c) High expenditure.
  - (d) A lot of repetitive tasks.

- (xiii) Software documentation is important because it:
- (a) facilitates initial design.
  - (b) aids program maintenance.
  - (c) facilitates integration testing.
  - (d) spells out individual project roles.
- (xiv) Which of the following is not a software implementation process?
- (a) Hardware provision.
  - (b) Direct changeover.
  - (c) Staff training.
  - (d) Systems specification.
- (xv) A network topology where each computer is connected to the network in a closed loop is:
- (a) tree.
  - (b) ring.
  - (c) bus.
  - (d) star.
- (xvi) Negative entropy is the term used to describe:
- (a) uncertainty in the system.
  - (b) disorganisation in the system.
  - (c) reduction of uncertainty in the system.
  - (d) how separate the system is from its environment
- (xvii) The modem is used in computer communication to:
- (a) convert analog signals to digital signal.
  - (b) amplify the signals to be transmitted.
  - (c) couple the signals to be transmitted.
  - (d) prevent loss of the transmitted signal.
- (xviii) The method of running several different programs in a computer apparently at the same time is called:
- (a) duplexing.
  - (b) coupling.
  - (c) multitasking.
  - (d) decentralized processing.

- (xix) The main advantage that a secondary storage has over primary storage (memory) is:
- (a) erasability.
  - (b) permanency.
  - (c) random access.
  - (d) faster access.
- (xx) System design as a stage in the systems development life cycle involves the following **EXCEPT**:
- (a) specifying the system.
  - (b) pseudo code.
  - (c) screen layouts.
  - (d) business rules.

## SECTION B

### Question 2

- (a) Briefly, describe the following:
- (i) Anti-virus software. **(2 marks)**
  - (ii) e-commerce. **(2 marks)**
  - (iii) Computer operating system. **(2 marks)**
  - (iv) Secondary computer memory. **(2 marks)**
  - (v) Distributed systems. **(2 marks)**
- (b) Distinguish between the following:
- (i) Data and information. **(2 marks)**
  - (ii) Hardware and software. **(2 marks)**
  - (iii) Real-time computing and batch processing. **(2 marks)**
  - (iv) Intranet and extranet. **(2 marks)**
  - (v) Direct changeover and parallel changeover. **(2 marks)**

**(Total 20 marks)**

### Question 3

It is a known fact that computers have affected every aspect of our day-to-day life. This is so because of their nature and the evolution of the programming languages.

#### Required:

- (a) Describe the characteristics of a computer. (10 marks)
  - (b) Describe, with examples, the generation of programming languages. (10 marks)
- (Total 20 marks)**

### Question 4

Application of computer networks to global business has affected business operations.

#### Required:

- (a) What do you understand by the term 'computer network'? (2 marks)
  - (b) Give **five** advantages of computer networks. (5 marks)
  - (c) Give **four** shortcomings of computer networks. (4 marks)
  - (d) Describe **three** different types of computer networks. (9 marks)
- (Total 20 marks)**

### Question 5

The identification and definition of user requirements is one of the most important stages in the systems development life cycle.

#### Required:

- (a) Briefly describe the various stages of the systems development life cycle. (8 marks)
  - (b) What do you understand by 'user requirements'? (2 marks)
  - (c) Explain **five** different ways that can be used in identifying and defining requirements for a proposed system. (10 marks)
- (Total 20 marks)**

### Question 6

The internet has become a common tool for both individuals and business organisations.

#### Required:

- (a) Describe **four** areas where application software is applied.  
(4 marks)
  - (b) Give **four** benefits of using the internet.  
(8 marks)
  - (c) Give **four** problems of using the internet.  
(8 marks)
- (Total 20 marks)

### Question 7

- (a) Describe the possible threats to business and organizational data.  
(10 marks)
  - (b) Describe how business and organizational data can be safeguarded.  
(10 marks)
- (Total 20 marks)