

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

ATC (U) EXAMINATIONS

LEVEL TWO

INFORMATION SYSTEMS – PAPER 8

THURSDAY, 4 JUNE 2015

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. This examination contains Sections **A** and **B**.
3. Section **A** is bound separately from Section **B**.
4. Attempt all the 20 multiple-choice questions in Section **A**. Each question carries 1 mark.
5. Attempt **four** out of the **six** questions in Section **B**. Each question carries 20 marks.
6. Write your answer to each question on a fresh page in your answer booklet.
7. Please, read further instructions on the answer booklet, before attempting any question.

© 2015 Public Accountants Examinations Board

SECTION B

Attempt four of the six questions in this section

Question 2

- (a) (i) Identify the network communication devices. **(2 marks)**
(ii) With examples, describe the components of an executive information system. **(8 marks)**
- (b) Explain the advantages and disadvantages of working in a networked environment. **(10 marks)**

(Total 20 marks)

Question 3

- (a) With examples, where applicable, differentiate between the following terms:
- (i) System analysis and system design. **(2 marks)**
 - (ii) Unit testing and user acceptance testing. **(2 marks)**
 - (iii) Bespoke software and programming languages. **(2 marks)**
 - (iv) System development life cycle and programming. **(2 marks)**
 - (v) Intranet and extranet **(2 marks)**
- (b) Explain the disadvantages of using machine languages. **(4 marks)**
- (c) Explain the functions of the following hardware components of a computer:
- (i) System unit. **(1 mark)**
 - (ii) Microprocessor. **(1 mark)**
- (d) Describe the different types of application software. **(4 marks)**

(Total 20 marks)

Question 4

- (a) Define the term 'computer file'. **(1 mark)**
- (b) Describe the following types of files as used in databases:
- (i) Master file. **(2 marks)**
 - (ii) Transaction files. **(2 marks)**
 - (iii) Reference files. **(2 marks)**
 - (iv) Backup files. **(2 marks)**

- (c) Before any computer system is brought to use, it is essential to ensure that it carries out all its intended functions within the established limits.

Required:

- (i) Identify different tests carried out during the system testing and evaluation stage of the system development life cycle. (3 marks)

- (ii) Explain the benefits of a database management system in an organization. (8 marks)

(Total 20 marks)

Question 5

- (a) Strategic information systems are meant to support top managers in organizations.

Required:

Explain the strategic considerations when thinking of setting up a strategic information system.

(8 marks)

- (b) Distributed computer systems consist of hardware located at least at two geographically distinct sites, connected electronically by telecommunications, where processing and data storage occur at more than one site.

Required:

- (i) Explain the benefits of distributed computer systems. (8 marks)

- (ii) Outline the disadvantages of distributed computer systems. (4 marks)

(Total 20 marks)

Question 6

- (a) State the meaning of the following terms as used in information systems:

(i) Hacking. (2 marks)

(ii) Pirating. (2 marks)

(iii) Utility software. (2 marks)

(iv) Computer security. (2 marks)

(8 marks)

- (b) Outline any **four** computer security measures taken to protect an information system of a small business.

(4 marks)

- (c) Explain the factors that would be considered by a small business when acquiring computer software.

(8 marks)

(Total 20 marks)

Question 7

- (a) Describe the **three** methods of data transmission.

(6 marks)

- (b) Explain the data protection regulations that are likely to be found in an organization.

(3 marks)

- (c) Explain:

- (i) what is meant by 'operational priorities' in an organisation's information system.

(2 marks)

- (ii) how operational priorities are developed in an information system.

(5 marks)

- (d) Describe at least **two** levels of management in an organization.

(4 marks)

(Total 20 marks)

