

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

ATC(U) EXAMINATIONS

LEVEL TWO

INFORMATION SYSTEMS – PAPER 8

TUESDAY, 17 JUNE 2003

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) Information redundancy is a result of:
 - (a) data made redundant and not being used.
 - (b) too much information is given than required.
 - (c) information lost during transmission.
 - (d) failure in technology transmitting the message.
- (ii) Value of information results from:
 - (a) having proper information measurements.
 - (b) spending a lot to achieve best results.
 - (c) actions by decision makers who use information to improve profitability.
 - (d) actions by management who have to incur the expenses.
- (iii) Operational control is the process of ensuring that:
 - (a) specific tasks are carried out efficiently.
 - (b) there is full control at operational management level.
 - (c) human factor becomes more important.
 - (d) emphasis is basically on planning.
- (iv) Spreadsheets are a kind of computer software used to:
 - (a) produce documents and letters.
 - (b) develop programming languages.
 - (c) manipulate numbers and carry out calculations.
 - (d) produce handwritten notes, diagrams and charts.
- (v) Decoupling subsystems is explained by:
 - (a) increasing performance of each subsystem.
 - (b) decreasing financial dependency of subsystems upon each other.
 - (c) limiting direct dependence of subsystems upon each other.
 - (d) increasing direct dependence of subsystems with the organisation.
- (vi) A dynamic equilibrium system is one whose state:
 - (a) can be predicted only within certain limits.
 - (b) reacts to stimuli in a learning pattern.
 - (c) remains dynamic to various events.
 - (d) remains in control despite changes within the environment.

- (vii) Utilities packages are software tools designed to:
- (a) improve the way in which the operating system works.
 - (b) describe collections of instructions to the computer hardware.
 - (c) communicate between operator and computer.
 - (d) control processor and storage hardware.
- (viii) What is sub-optimisation?
- (a) When the system performs at profit maximization level.
 - (b) When there is direct agreement of subsystems.
 - (c) When there is conflict between subsystems with benefits to one subsystem to the detriment of others.
 - (d) When one system depends on the other system in terms of input and output in business planning.
- (ix) Facilities management is a situation where:
- (a) an organisation buys in services and expertise rather than employing their own staff to perform the functions.
 - (b) an organisation buys facilities and sales them to other companies.
 - (c) an organisation allows a third party to take over running of its IT staff and computer facilities.
 - (d) an organisation manages all its IT staff and computer facilities.
- (x) Which of the following is not a one-off technology expenditure?
- (a) Hardware acquisition.
 - (b) Insurance.
 - (c) Installation.
 - (d) Software updates.
- (xi) Which of the following best describes access time?
- (a) Method by which browser can restrict access to Internet.
 - (b) Average time taken to locate specific types of data.
 - (c) Program that automatically accesses data in processing.
 - (d) Software which permits free access time to computer.
- (xii) Another word for software defects caused by human error during programming is:
- (a) big-bangs.
 - (b) brand abuses.
 - (c) bookmarks.
 - (d) bugs.

- (xiii) A type of software developed from scratch is:
- (a) applications software.
 - (b) bespoke software.
 - (c) off-the shelf software.
 - (d) business software.
- (xiv) The microprocessor of a computer system is:
- (a) read only memory.
 - (b) random access memory.
 - (c) central processing unit.
 - (d) computer aided manufacture.
- (xv) Who is a cracker in the information systems world?
- (a) A person who cracks information system designs.
 - (b) A person responsible for designing information systems.
 - (c) A person gaining access to information systems for malicious reasons.
 - (d) A person who develops a computer.
- (xvi) Which of the following is false about electronic funds transfer?
- (a) It involves automated digital transmission of money.
 - (b) Involves transmission of money between organisations.
 - (c) Involves physical transmission of funds between organisations and banks.
 - (d) Involves transmission of messages between organisations and banks.
- (xvii) What is meant by elapsed time?
- (a) Indicates how long the task will take.
 - (b) Indicates how the task will be performed.
 - (c) Measures the resources the task will consume.
 - (d) Indicates the time spent when processing input.
- (xviii) Who is an information warrior?
- (a) A person who worries about information.
 - (b) A person who seeks to obtain information by any means necessary.
 - (c) A person who is responsible for safeguarding unauthorised access to information.
 - (d) A person who starts up phases of information.

- (xix) Metadata is a term used to describe:
- (a) data relating to memory storage.
 - (b) the data in a data warehouse.
 - (c) data of an information system.
 - (d) data on an application software.
- (xx) Expert systems are used:
- (a) by expert managers in production.
 - (b) to help easy access of information systems.
 - (c) to help non specialists to make decisions.
 - (d) to retrieve and manage information that can be used in an organisation.

SECTION B

Question 2

- (a) Describe the following computer components:
- (i) Any two input devices. **(4 marks)**
 - (ii) Any two output devices. **(4 marks)**
 - (iii) One storage device. **(2 marks)**
- (b) (i) Explain what is meant by office automation? **(2 marks)**
(ii) Give any three areas supported by automation. **(6 marks)**
(iii) Give one advantage of office automation. **(2 marks)**
- (Total 20 marks)**

Question 3

- (a) Explain the following software applications:
- (i) Operating systems software. **(2 marks)**
 - (ii) Bespoke applications. **(2 marks)**
 - (iii) Off the shelf application. **(2 marks)**
- (b) Define batch processing in a computer environment. Give one of its advantages. **(4 marks)**
- (c) Give three benefits of using information technology in an organisation. **(6 marks)**
- (d) Give any two dangers of using information technology in an organisation. **(4 marks)**
- (Total 20 marks)**

Question 4

- (a) Information may be categorised according to the level of management using it. Explain the three levels of management. **(6 marks)**
- (b) (i) How does data differ from information? **(4 marks)**
- (ii) Give two examples of informal sources of information in an organisation **(2 marks)**
- (iii) Give two problems of an informal source of information. **(4 marks)**
- (c) Distinguish between qualitative and quantitative information. **(4 marks)**
- (Total 20 marks)**

Question 5

- (a) (i) Explain decentralisation in information technology context. **(2 marks)**
- (ii) Give two advantages of decentralisation of IT. **(4 marks)**
- (b) What do you understand by a database management system? **(2 marks)**
- (c) Give three benefits of using database management systems. **(6 marks)**
- (d) What is the difference between data mining and data warehousing? **(6 marks)**
- (Total 20 marks)**

Question 6

- (a) Write short notes on the following:
- (i) Database administrator. **(3 marks)**
- (ii) User group. **(3 marks)**
- (iii) Project team. **(3 marks)**
- (iv) Steering committee. **(3 marks)**
- (b) In project management, some activities have spare time, so when delays occur the overall project duration may not be affected. What name is given to this spare time? **(2 marks)**
- (c) Give three reasons why projects fail. **(6 marks)**
- (Total 20 marks)**

Question 7

- (a) Explain the meaning of prototyping. **(2 marks)**
 - (b) Give two advantages of prototyping. **(4 marks)**
 - (c) Explain the following terms:
 - (i) Internet Service Provider. **(2 marks)**
 - (ii) Client/Server architecture. **(2 marks)**
 - (iii) Fire wall software. **(2 marks)**
 - (iv) Web browser. **(2 marks)**
 - (v) World Wide Web. **(2 marks)**
 - (d) Explain the meaning of a computer virus. Give one example. **(4 marks)**
- (Total 20 marks)**