Examination No._____

THE PUBLIC ACCOUNTANTS EXAMINATION COUNCIL OF MALAWI

2009 EXAMINATIONS

ACCOUNTING TECHNICIAN PROGRAMME

PAPER TC 4: INFORMATION SYSTEMS

TUESDAY 8 DECEMBER 2009 **TIME ALLOWED: 3 HOURS**
2.00 PM - 5.00 PM

INSTRUCTIONS

1. You are allowed **15 minutes** reading time **before the examination begins** during which you should read the question paper and, if you wish, make annotations on the question paper. However, you will **not** be allowed, **under any circumstances**, to open the answer book and start writing or use your calculator during this reading time.

2. Number of questions on paper - 8.

3. **FIVE** questions **ONLY** to be answered.

4. Each question carries 20 marks.

5. Begin each answer on a fresh page.

6. **DO NOT OPEN THIS PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.**

This question paper contains 3 pages

This question paper must **not** be removed from the examination hall.

1. (a) A program logistics chart is independent of the programming language that will be used. Programming languages are categorised into two major groups i.e. low level and high level.

Required:

(i) Define the term computer language. **3 Marks**

(ii) (1) Describe a low level computer language.

(2) What is it mainly used for. **5 Marks**

(iii) Give one example of a low level computer language. **1 Mark**

(iv) (1) Describe a high level computer language. **3 Marks**

(2) What is high level computer language mainly used for. **2 Marks**

(v) Give one example of a high level computer language. **1 Mark**

(b) High level computer languages require a compiler in order to achieve its goal.

(i) What is a computer compiler. **3 Marks**

(ii) Why is a computer compiler necessary on a business organisation. **2 Marks**

(TOTAL: 20 MARKS)

2. Computers have been used as tools to support managerial decision making for a number of years and the various tools/decision aids can be grouped into the following categories.

- transaction processing systems
- management information systems
- decision support systems
- expert systems

Required:

Define and distinguish between these categories, ensuring that each is considered from the following aspects:

(a) Application served. **4 Marks**

(b) Database facilities. **4 Marks**

(c) Decision capabilities. **4 Marks**

(d) Type of information output. **4 Marks**

(e) Level served within the organisation. **4 Marks**

(TOTAL: 20 MARKS)

3. A project feasibility study presented to senior management must always contain a detailed economic justification for any proposed expenditure on computerization.

Required:

Describe the costs which are incurred and the benefits which may arise from the introduction and operation of computerized information systems. The answer should cover the following:

(a) Tangible costs. **5 Marks**

(b) Intangible costs. **5 Marks**

(c) Tangible benefits. **5 Marks**

(d) Intangible benefits. **5 Marks**

(TOTAL: 20 MARKS)

4. (a) Explain the terms "top down" and "bottom up" in respect of approaches to information systems design. **10 Marks**

(b) What are the advantages and disadvantages of each of the **two** approaches explained in (a) above? **10 Marks**

(TOTAL: 20 MARKS)

5. Security of data and equipment is one of the most important elements of a data processing department. Describe security and control measures that you would put in the following areas:

(a) Physical control of computer hardware. **6 Marks**

(b) Internal security controls for data and information. **8 Marks**

(c) Control of consumable hardware such as tapes, diskettes, computer paper. **6 Marks**

(TOTAL: 20 MARKS)

6. (a) Define the term computer bureau. **3 Marks**

(b) State **seven** major functions of computer bureaus. **7 Marks**

(c) List guidelines that you would follow to select a computer bureau that you would use. **10 Marks**

(TOTAL: 20 MARKS)

Continued/……

7. Computers have evolved through generations, from first to fourth generation. Each generation is characterized by a major technological development. These resulted in increasingly smaller, cheaper, more power and more efficient and reliable devices.

Required:

Describe major changes that took place in all the four generations.

(TOTAL: 20 MARKS)

8. All general-purpose computers require some basic hardware devices to function.

Required:

(a) Describe **five** basic hardware components that computers require. **15 Marks**

(b) Describe a computer firewall. **5 Marks**

(TOTAL: 20 MARKS)

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