

Centre Number	Candidate Number

Candidate Name: _____

EXAMINATIONS COUNCIL OF ZAMBIA

Examination for General Certificate of Education Ordinary Level

Computer Studies

7010/1

Monday

25 JULY 2016

Candidates answer on the question paper

No additional materials are required.

Time: 2 hours 30 minutes

Instructions to candidates

Write your name, centre number and candidate number in the spaces at the top of this page.

There are **13 questions** in this paper. Answer **all** questions.

Write your answers in the spaces provided on the question paper.

Information for candidates

The number of marks is given in brackets [] at the end of each question or part question.

Cell phones are not allowed in the Examination Room.

FOR EXAMINER'S USE

1 Explain the meaning of the following computer terms using examples where necessary;

(a) Auto correct.....

.....

..... [2]

(b) Arithmetic Logic Unit.....

.....

..... [2]

(c) Primary storage.....

.....

..... [2]

(d) Smart Phone

.....

..... [2]

(e) Desktop

.....

..... [2]

(f) Log off

.....

..... [2]

- 2 (a) State **two** advantages of using data stored on a hard disk rather than data stored on a magnetic tape.

Advantage 1.....
..... [1]

Advantage 2.....
..... [1]

- (b) Give **two** advantages of removable secondary storage devices.

Advantage 1.....
..... [1]

Advantage 2.....
..... [1]

- (c) Give **two** reasons why the system software of a computer is stored in the Read Only Memory (ROM).

Reason 1

..... [1]

Reason 2

..... [1]

- (d) Give **one** example of storage media which is read-only apart from the Read Only Memory (ROM).

..... [1]

- 3** An air travel agent makes flight bookings for customers around the capital city. The bookings are made using an on-line booking system. The system is interactive.

- (a) What is meant by the system being interactive?

.....
..... [2]

- (b) Give **two** other examples of an interactive system.

Example 1..... [1]
Example 2..... [1]

- (c) When the operator makes a booking, the system queries a central remote database. Give **two** reasons why flight bookings are made on central databases.

Reason 1

..... [1]

Reason 2

..... [1]

- (d) What is the name given to the type of processing that takes place in the booking system?

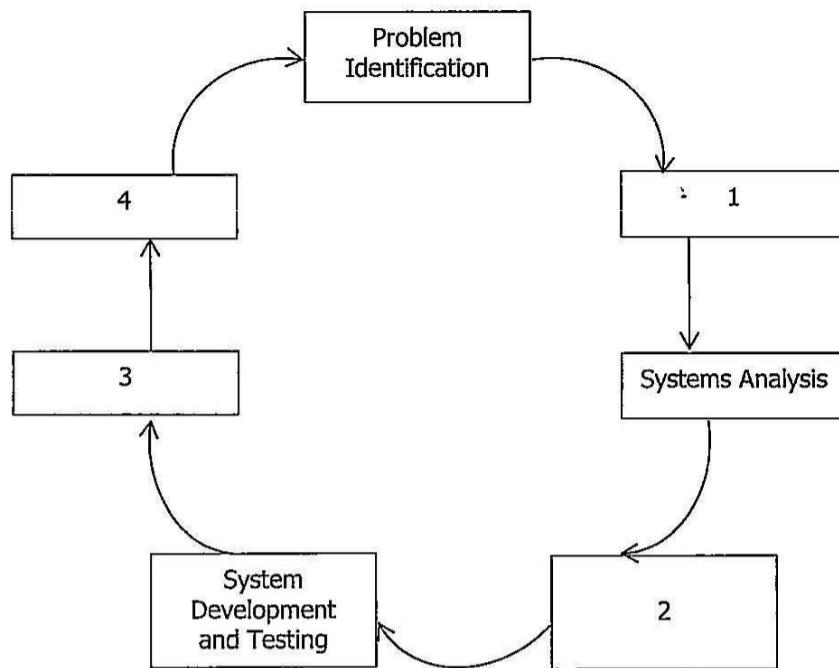
..... [1]

- (e) Give **two** other examples that work like air-line booking systems.

Example 1..... [1]
Example 2..... [1]

- 4 Trading in goods and services has been popularised with the increase in access to the Internet.
- (a) What is the term used to describe the trading of goods and services using the Internet?
..... [1]
- (b) Give **two** benefits of trading on the Internet to the
(i) seller
Benefit 1
..... [1]
Benefit 2
..... [1]
- (ii) buyer
Benefit 1
..... [1]
Benefit 2
..... [1]
- (c) State **two** disadvantages of trading using the Internet.
Disadvantage 1
..... [1]
Disadvantage 2
..... [1]

- 5** Study the diagram below and answer the questions that follow.



- (a)** What is the purpose of the process shown?

..... [1]

- (b)** Name the stages marked by the numbers.

1 [1]

2 [1]

3 [1]

4 [1]

- (c)** State **three** types of tests carried out during the System Development and Testing stage.

Test type 1 [1]

Test type 2 [1]

Test type 3 [1]

- (d)** List **two** activities that are done in the Systems Analysis stage.

Activity 1

..... [1]

Activity 2

..... [1]

- 6 Many organisations including schools have set up their computer networks as Intranets.

- (a) (i) What is the difference between an Intranet and the Internet?

.....
..... [2]

- (ii) Describe **two** benefits of an Intranet to a school.

Benefit 1
..... [1]
Benefit 2
..... [1]

- (b) State **two** precautions that a user should take when accessing files on the Internet.

Precaution 1
..... [1]
Precaution 2
..... [1]

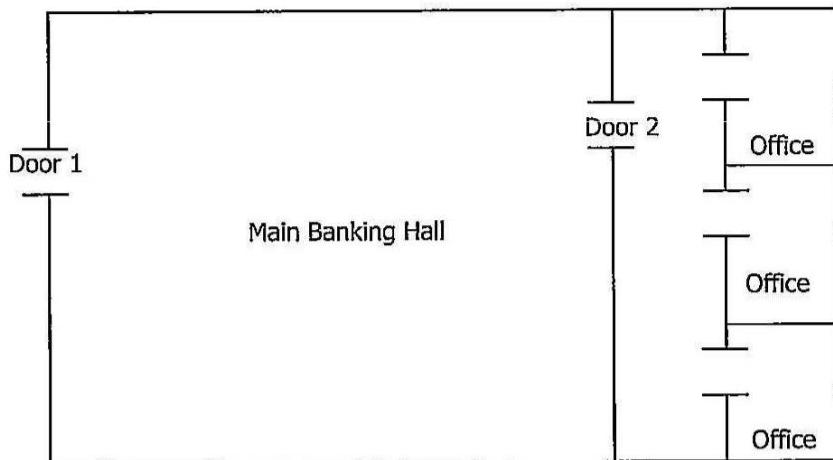
- (c) Give **one** advantage of the Internet over an Intranet.

..... [1]

- (d) Describe **two** security measures used on an Intranet.

Measure 1
..... [1]
Measure 2
..... [1]

- 7 A bank has two security doors used to control access to its premises. Door 1 is the entrance to the main banking hall and opens automatically as any one approaches. Door 2 gives access to offices for staff only and requires entrance rights to open. Use the illustration below to answer questions that follow.



- (a) Name **two** sensors that can be used at door 1.
- Sensor 1 [1]
- Sensor2 [1]
- (b) (i) Describe briefly the process that takes place in order for door 1 to open.
.....
..... [2]
- (ii) Give **one** item in the entrance rights required for door 2 to open.
.....
..... [1]
- (c) Give **two** advantages to the bank of using a microprocessor controlled security door.
- Advantage 1.....
..... [1]
- Advantage 2.....
..... [1]
- (d) State **one** disadvantage of microprocessor controlled security equipment.
..... [1]

- 8 Ngwangwa Finance Company keeps records of its creditors in a spreadsheet. An extract of one of the records kept is shown below. Use this extract to answer the questions that follow.

	A	B	C	D	E
1	CREDITOR	AMOUNT		CREDITOR	TOTAL
2	CHALI	60		AKA	140
3	MOONGA	90		CHALI	
4	AKA	70		MAUNGA	
5	MOONGA	110		MOONGA	
6	MAUNGA	80			
7	AKA	50			
8	MAUNGA	100			
9	AKA	20			

- (a) If the total credit for AKA entered at E2 was calculated by the function
 $= \text{Sum if } (\text{A2 : A9, "AKA"}, \text{B2 : B9})$, write the function that can be entered at E3.

..... [2]

- (b) Describe another way that can be used to add up the total amount for each creditor.

.....

..... [2]

- (c) Give **one** validation method that can be used to restrict the amount of credit allowed to each customer.

..... [1]

- (d) Describe how you can create a graph for creditor subtotals.

.....

..... [2]

- 9** Computer systems are very important in the running of supermarkets and other stores. Sometimes computers at these stores develop problems.

- (a)** Give **two** problems that may cause a computer to malfunction.

Problem 1

..... [1]

Problem 2

..... [1]

- (b)** Describe **two** effects of system failure to the supermarket business.

Effect 1

..... [1]

Effect 2

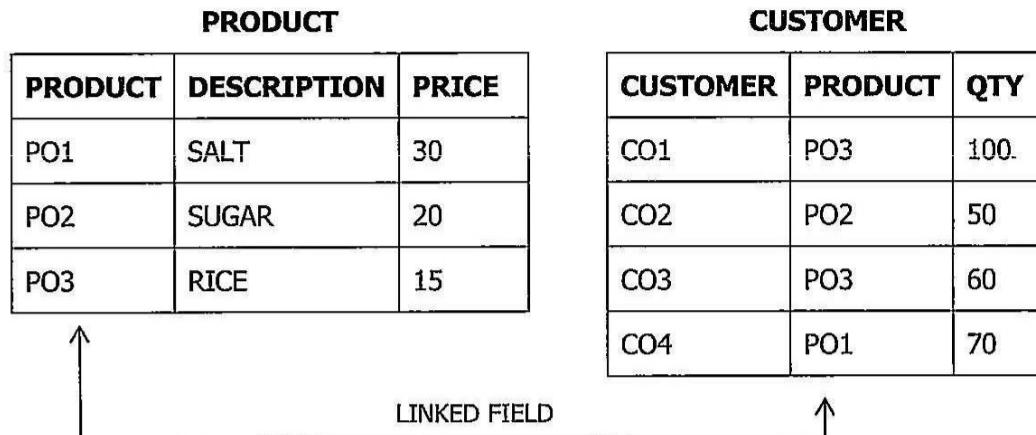
..... [1]

- (c)** Describe **one** way of recovering lost data on the Supermarket's Computer System.

.....

..... [2]

- 10** Databases kept by organisations are usually linked. Study the linked database tables below and answer the questions that follow.



ORDER QUERY					
CUSTOMER	PRODUCT	DESCRIPTION	PRICE	QTY	AMOUNT
CO1					X
CO3					Y

- (a)** Give **one** reason for having the table relationship.

..... [1]

- (b)** AMOUNT in the order query is a calculated field defined by,

AMOUNT: [QTY] * [PRICE].

Using this formula, find the value for X and Y in the AMOUNT field.

X [1]

Y [1]

- (c)** Give **one** of the conditions necessary for the two tables to be related.

..... [2]

- (d)** Explain how similar records can be extracted from a database table.

.....

..... [2]

- (e)** What feature is used to extract records in a database?

..... [1]

11 A company has invested in computer systems to help carry out the following tasks:

- advertise products (both on the internet and paper leaflets),
- keep track of customers and staff contact details,
- produce online products on offer,
- produce reports to management.

Describe **four** software packages the company could use to carry out the above tasks and give a reason why each software package has been chosen.

Package 1.....

[1]

Reason.....

[1]

Package 2.....

[1]

Reason.....

[1]

Package 3.....

[1]

Reason.....

[1]

Package 4.....

[1]

Reason.....

[1]

- 12** The algorithm below was written to calculate tax for five employees at Jumulo Internet Cafe.

```
Count = 0
WHILE count ≤ 5
    Input salary
        IF salary > 3 000 THEN tax = salary × 0.20
        ELSE if salary > 4 500 THEN tax = salary × 0.25
        ELSE if salary > 7 000 THEN tax = salary × 0.40
        ELSE tax = 0
        ENDIF
    ENDIF
ENDIF
    print tax
    count = count + 1
ENDWHILE
```

- (a)** How many tax bands (tax range) is the program using to calculate tax?

..... [1]

- (b)** Write the output if the following salaries are entered.

(i) 2 700 [1]

(ii) 4 200 [1]

(iii) 12 700 [1]

13 A hotel offers a virtual tour of its facilities on a website.

(a) Describe how images are created and processed for use in the virtual tour.

.....

..... [1]

(b) What **two** features would you expect to see on the virtual tour website?

Feature 1

..... [1]

Feature 2

..... [1]

(c) Give **two** other applications that use virtual reality.

Application 1

..... [1]

Application 2

..... [1]

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