

Candidate Name _____

Centre Number			Candidate Number				

EXAMINATIONS COUNCIL OF ZAMBIA

Examination for School Certificate Ordinary Level

Computer Studies

7010/1

Paper 1

Tuesday

14 NOVEMBER 2017

Candidates answer on the question paper
No additional materials are required

Time: 2 hours 30 minutes

Instructions to Candidates

- 1 Write your **name**, **centre number** and **candidate number** in the spaces at the top of this page.
- 2 There are 13 questions in this paper, 12 in Section **A** and 1 in Section **B**. Answer **all** questions.
- 3 Write your answers in the **spaces** on the question paper.

Information For Candidates

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

The total number of marks for this paper is 70.

Cell phones are not allowed in the Examination Room.

<i>For Examiner's Use</i>	
Section A	

Section A

1 (a) What computer term do we use to refer to organised facts?

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

(b) Give **one** advantage of soft copy.

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

(c) Which portable device can be used to read soft copy?

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

2 A biometric security system has been installed at a bank.

(a) Name the part of the human body apart from eyes, which the system can use to identify a person.

..... [1]

(b) Give **one** disadvantage of biometric input.

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

(c) Describe **one** other automated security method that can be used at the bank.

..... [1]

3

Masomo School has computerised its library which uses barcodes and a relational database.

(a) Explain what is meant by a relational database.

.....
 [2]

(b) Name the device that would be used to read barcodes and **one** item in the library that can use barcodes.

Device [1]

Item [1]

(c) Each member's record has a unique number. Give **one** use of this number in the database.

.....
 [1]

4

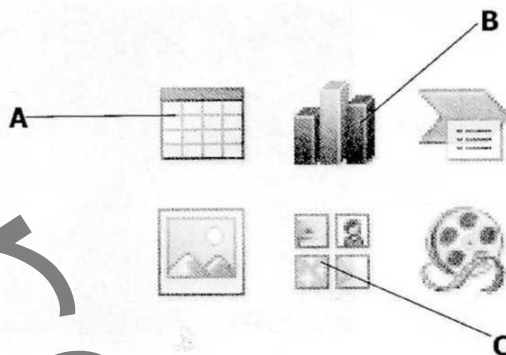
(a) State the difference between octal and hexadecimal number system.

.....
 [1]

(b) Which number can the computer pick as greater, between 1100 (Octal) and IED (hexadecimal). Show your working.

.....

- 5 The diagram below shows a screen from a Presentation package. Study it and answer the questions that follow.



- (a) State the names of the frames marked by **A** and **B**.

A [1]

B [1]

- (b) State the use of frame **C**.

..... [1]

- (c) State **one** device apart from a computer that is required to run a presentation.

..... [1]

- (d) State **one** similarity between a Word Processor and a Desktop Publishing Package.

..... [1]

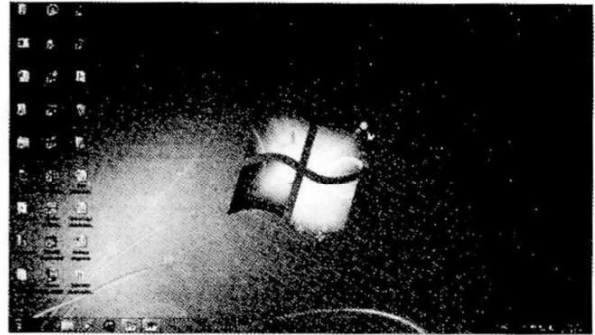
- 6 **AND**, **NOT** and **OR** gates have been used in the following truth table. Complete the outputs indicated.

A	B	C	E = NOT C	F = A OR B	E AND F
1	0	1	0		
1	1	0	1		

7 Two typical user interfaces are shown below.



1



2

(a) Explain the meaning of the term, user interface.

.....

.....

[2]

(b) Mention the mouse function not applied in interface 1, but possible in interface 2.

.....

.....

[1]

(c) State the application software that makes use of interface 1.

.....

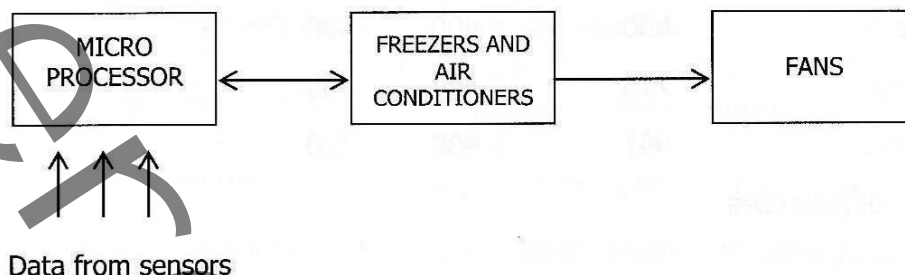
[1]

(d) State the system software that uses interface 2.

.....

[1]

- 8 A modern meat storage cold room uses computer systems to control the freezing equipment. The cold room is equipped with sensors that monitor room conditions and feed data back to the micro processors.



- (a) Give **one** example of data captured from sensors in the cold room.
- [1]
- (b) When loading and offloading the meat stocks, the freezers go off while the air conditioners come on. Explain how the system is able to do this automatically.
-
- [2]
- (c) Give **one** reason why data is fed back to the micro processors from sensors.
-
- [1]

- 9 Chinyemba runs a small business of sewing clothes. To keep a record of the cost of business, he uses a software package as shown below.

	Material	Wages	Rent	Tax	Total
April	830	1 400	400		
May	715	1 400	400		
June	901	1 400	400		
Total Expenses					

- (a) What software package is suitable for this record?
 [1]
- (b) Each month, Chinyemba types in the cost of various items. Explain why he does not need to type in the total cost.

 [1]
- (c) When "Total Expenses" was typed, it could not appear fully. What could be done so that it is fully displayed?

 [1]
- (d) Explain how the amounts can be changed to show ngwees, that is 830.00.

 [1]

10 Mwikisa runs a small trading business. He wants to change from a manual wages system to a computerised one.

- (a) Give **one** reason why it is important for him to undertake a feasibility study before considering the change to a new system.

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

- (b) Give **one** advantage to Mwikisa of buying a software package instead of writing the program for calculating wages.

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

- (c) Mention **two** types of tests he can carry out to check if the system works well.

Type 1 [1]

Type 2 [1]

11 Most big organisations depend on large networks to run their businesses. One of their main concerns is data security.

- (a) Give a type of network on which security is critical.

..... [1]

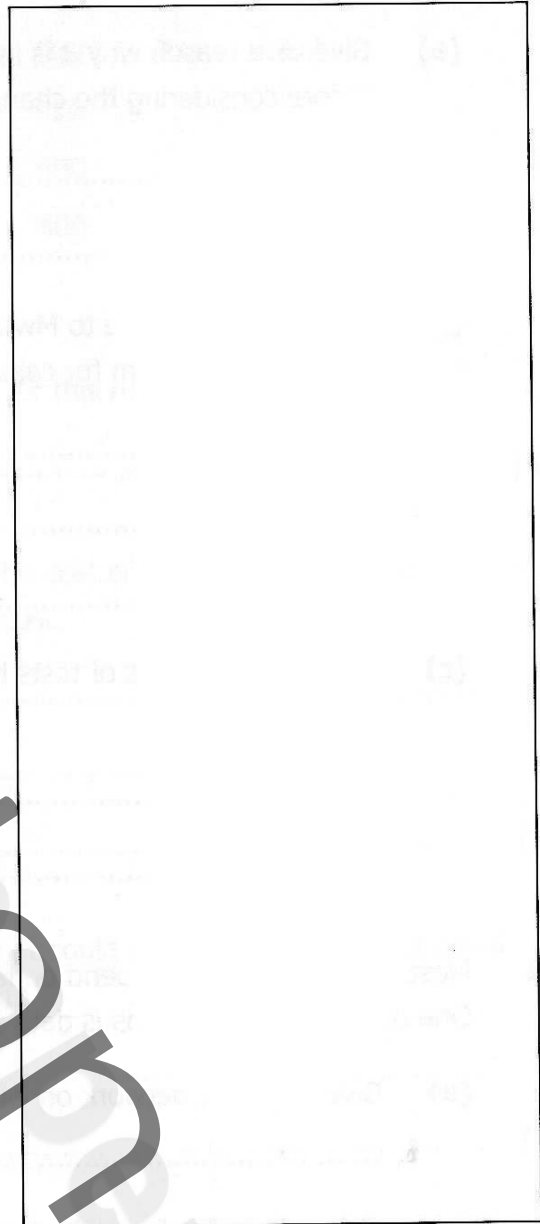
- (b) Give **one** type of security threat common on networks.

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

- (c) Give **one** advantage of a bus topology.

- 12 The following algorithm in pseudo code is used to calculate the area of a triangle, given base (b) and height (h).

```
START
  Enter (b)
  Enter (h)
  IF (b < 0) or (h < 0) THEN
    PRINT input error
  ELSE
    Calculate Area =  $\frac{1}{2} * b * h$ 
    Print Area
  END IF
STOP
```



Rewrite the algorithm using a flow chart in the box on the right.

[4]

Section B

13 Read the following scenario carefully and use it to answer the questions that follow.

At Channa School, a charity has been formed for student donations and profits from school fundraising events. Each class competes to win the school charity shield for the most money collected in the year. The records for this are manually done.

When a student donation is recorded, the following details are always written in the class record book.

- Student name
- Date
- Class
- Amount of donation

When a profit from a fundraising event is recorded, the following details are written in the class record book.

- Event name
- Date
- Class
- Profit made

Description of current system

- Paper based
- donations recorded by each claim
- all class records recorded in school donations master file

(a) A Systems Analyst will take up the project to computerise this system. Give **two** tools he could use to check the progress on this project.

.....

.....

.....

- (b) The analyst must study the existing recording system from the students who have used it. State **one** method that would **not** be suitable to study this system. Explain why the Systems Analyst should not choose that method.

Method: [1]

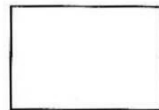
Explanation: [2]

- (c) In the choice of hardware to be used, the analyst has proposed that a laptop computer and smart phone be used to run the system.

(i) Give **one** use of the laptop for this system. [1]

(ii) Give **one** use of the smartphone for this system. [1]

- (d) State what you would use the following symbols for in the project.



A



B



C

A [1]

B [1]

C [1]

- (e) If the two sets of details are used to create databases, which **two** fields can be used to link the two databases?

Field name 1 [1]

Field name 2 [1]

- (f) When the new system is finally in place, what effect would it have on the venture and the users of the system?

The Venture [2]

The Users [2]

- (g) What type of maintenance would be appropriate for this system?

..... [2]

- (h) Describe **one** future development note that can be included in this system.

..... [3]