

Candidate Name _____

Centre Number				Candidate Number									

EXAMINATIONS COUNCIL OF ZAMBIA

Examination for General Certificate of Education Ordinary Level

Computer Studies

7010/1

Paper 1

Monday

14 AUGUST 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 B	
Total	

Section A

1 (a) What is a file?

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

(b) State **one** disadvantage of using folders.

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

(c) Why does the operating system hide certain folders?

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

(d) Give **one** advantage of saving files in the same folder.

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

2 Macros are common in most application software.

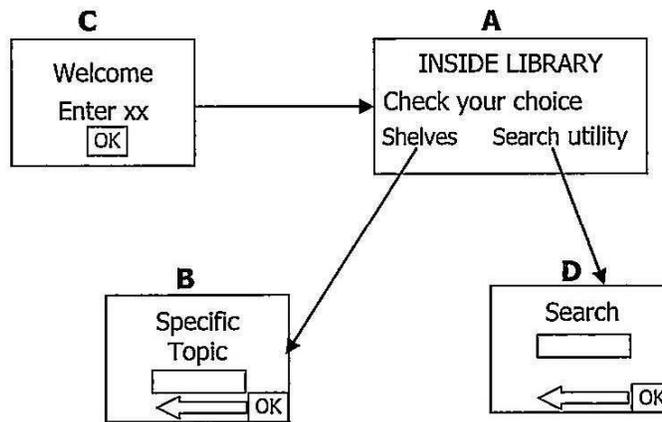
(a) Give **one** use of macros.

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

(b) Give **one** draw back of macros.

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

3 The diagram below shows the link of web pages of a school library website.



(a) State information requested in C.
 [1]

(b) Which diagram is the home page?
 [1]

(c) What is the name of the computer that keeps pages of the website?
 [1]

(d) Give **two** precautions users should take when using the internet.
 Way 1 [1]
 Way 2 [1]

4 (a) River pollution is common in large mining operations. Computer control is often used to effectively deal with this problem.
 Name **one** sensor and the data it collects in this system.
 Sensor [1]
 Data [1]

(b) Give **one** reason why data is collected remotely and automatically.
 Remote reason..... [1]
 [1]
 Automatic reason [1]
 [1]

- 5 The following is the order in which a short message (SMS) is sent and received on a mobile phone. Write the numbers from 1 to 8 in the right hand column for each stage in the correct order. Stage 1 and 5 have been done for you.

Description of Stage	Order of Stage
Message travels to recipient's mobile service storage server	5
Message sent to sender's mobile mail server	
Message tone rings on receiver's phone	
Sender composes message and presses the send button	1
Message held in recipient's in box awaiting to be read	
Mobile service provider system examines address	
Message retrieved and sent to recipient's phone	
Mobile service provider system decides how to route message	

[3]

- 6 (a) Give **one** difference between a simulation and virtual reality.

.....

.....

.....

[2]

- (b) Give **three** requirements of a virtual reality system.

Requirement 1 [1]

Requirement 2 [1]

Requirement 3 [1]

- (c) Give **one** area of entertainment and **one** area of training that uses virtual reality.

Entertainment [1]

Training..... [1]

7 Lundu is a television technician who uses an expert system installed on his laptop to trace faults when repairing televisions.

(a) Explain how Lundu will interact with the expert system to help diagnose the fault in a television.

.....
.....
.....

[2]

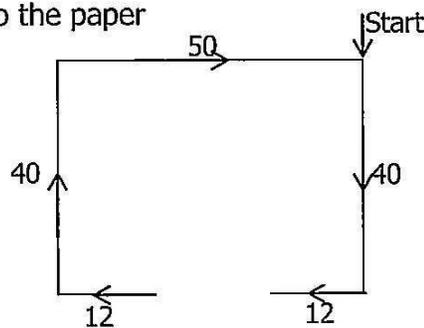
(b) Give **one** reason why files in the knowledge base need to be updated regularly.

.....
.....

[1]

8 A turtle that draws shapes on paper uses the following instructions:

- Forward **n** – moves **n** cm forward.
- Backward **n** – moves **n** cm backward.
- Turn left **t** – turns left **t** degrees
- Turn right **t** – turns right **t** degrees
- Pen up – lift the pen off paper
- Pen down – lower the pen onto the paper



Write the set of instructions that makes the turtle to draw the shape shown above in the directions indicated.

Assume that the pen is down at the start.

.....
.....
.....
.....
.....
.....

[4]

- 9 (a)** Study the following algorithm that is written in pseudocode and convert it to a flow chart.

BEGIN

 Prompt user for amount

 IF amount is less or equal to K5000 THEN

 Calculate interest at 15% of amount

 ELSE

 Calculate interest at 20% of amount

 END IF

 Display amount

 Display interest

END

[3]

- (b)** What is the purpose of this algorithm?

.....

.....

[1]

10 (a) State **two** stages in Systems Development Life Cycle (SDLC).

Stage 1..... [1]

Stage 2..... [1]

(b) Which stage will the analyst specify what the user wants in the new system?

..... [1]

(c) Rather than supply the user documentation on-line, the analyst decides to make a printout.

(i) Give **one** advantage of doing this.

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

(ii) Give **one** disadvantage of doing this.

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

11 A database below was set up to show information about the largest ocean ships.

SHIP ID	YEAR BUILT	GROSS CAPACITY	COUNTRY OF REGISTRATION	COUNTRY OF CONSTRUCTION
AO	2009	225 383	UK	Finland
NI	2008	155 408	UK	Finland
MQ	2004	148 530	Japan	France
EX	1999	137 308	France	Japan
OV	1996	108 866	Germany	UK
DE	1972	77 488	Israel	UK
RF	1940	79 280	USA	USA

(a) How many records are shown in the above database?

.....
 [1]

(b) Using ship ID, what would be the output if the following search condition was typed in;

(year built < 2 000) and (country of registration = country of construction)

..... [1]

(c) Complete the SQL statement below which locates ship ID from records with Gross capacity > 120 000.

SELECT..... from largest ocean ships table
 WHERE..... [2]

12 (a) The table below shows the type of processing and the application. Fill in the appropriate application against the processing method.

PROCESSING SYSTEM	APPLICATION
Online processing	
Batch processing	

[2]

(b) Define process control.

.....
 [2]

Section B

B Kazizela Manufacturers would like to computerise their existing manual order processing system. A systems analyst has been hired to work on this project.

(a) Describe what the analyst would do if the proposed change does not meet the requirements in the feasibility study.

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

(b) State **three** activities that would be done during the design stage.

Activity 1 [1]

Activity 2 [1]

Activity 3 [1]

(c) Write down **two** reasons why the system being developed must be subjected to more than one test.

Reason 1 [1]

Reason 2 [1]

(d) When the program of the system is being written, it is broken into modules. Give **two** advantages of this.

Advantage 1 [1]

Advantage 2 [1]

(e) This system would need additional hardware, apart from the computer itself. Name **two** additional hardware the system might require and give a reason for each.

Hardware 1..... [1]

Reason [1]

Hardware 2..... [1]

Reason [1]

- (f)** After computerisation of the system, the company decides to advertise on the internet. Write down **two** advantages and **two** disadvantages of this type of advertising.

Advantage 1 [1]

Advantage 2 [1]

Disadvantage 1 [1]

Disadvantage 2 [1]

- (g)** Give **three** items to consider in evaluating the system.

Item 1 [1]

Item 2 [1]

Item 3 [1]

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