

Candidate Name

Centre Number

Candidate Number



**ZIMBABWE SCHOOL EXAMINATIONS COUNCIL**  
General Certificate of Education Ordinary Level

**COMPUTER STUDIES**  
**PAPER 2**

**7014/2**

**SPECIMEN PAPER**

2 hours 30 minutes

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.  
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.

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**This question paper consists of 11 printed pages and 1 blank page.**

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1(a) Give **two** categories of computers.

\_\_\_\_\_ [2]  
\_\_\_\_\_

(b) What is a microprocessor?

\_\_\_\_\_ [1]  
\_\_\_\_\_

(c) Give **two** devices which are controlled by the microprocessor.

1: \_\_\_\_\_ [1]

2: \_\_\_\_\_ [1]

(d) State **one** use of a CD –ROM.

\_\_\_\_\_ [1]

(e) State **one** reason why CD-ROMs are suitable to be used as a storage device.

\_\_\_\_\_ [1]  
\_\_\_\_\_

**2** Define the following terms and give examples where appropriate.

(a) Hardware : \_\_\_\_\_ [2]  
\_\_\_\_\_

(b) Utility program: \_\_\_\_\_ [2]  
\_\_\_\_\_

(c) Input device: \_\_\_\_\_ [2]  
\_\_\_\_\_

(d) data logging: \_\_\_\_\_ [2]  
\_\_\_\_\_

- (e) Document reader: \_\_\_\_\_  
\_\_\_\_\_ [2]
- (f) Byte: \_\_\_\_\_  
\_\_\_\_\_ [1]
- (g) Multiprogramming \_\_\_\_\_  
\_\_\_\_\_ [1]

**3** Printers are used as output devices and there are different types of them.

(a) What is the name given to the print output?  
\_\_\_\_\_ [1]

(b) Give **two** advantages and **one** disadvantage of a laser printer.

Advantage 1: \_\_\_\_\_ [1]

Advantage 2: \_\_\_\_\_ [1]

Disadvantage: \_\_\_\_\_ [1]

(c) Name **one** printer type that is not in the same class with a laser. [1]

\_\_\_\_\_

**4** Banks have increased their use of computers considerably.

(a) Give **two** benefits of the use of computers to the customer;

1: \_\_\_\_\_  
\_\_\_\_\_ [1]

2: \_\_\_\_\_  
\_\_\_\_\_ [1]

5(a) Define a robot \_\_\_\_\_  
\_\_\_\_\_ [1]

(b) Name any **two** places where robots are used.

1. \_\_\_\_\_ [1]

2. \_\_\_\_\_ [1]

(c) State **two** benefits of using robots.

1. \_\_\_\_\_ [1]

2. \_\_\_\_\_ [1]

6 Computer systems are now being used in hospitals as part of life- support systems, for example, blood pressure is a condition in humans suitable to be monitored by a computer.

(a) Suggest other **two** conditions that can be monitored by a computer in humans.

1: \_\_\_\_\_ [1]

2: \_\_\_\_\_ [1]

(b) Identify **three** reasons why computers are used in support systems.

1: \_\_\_\_\_ [1]

2: \_\_\_\_\_ [1]

3: \_\_\_\_\_ [1]

(c) Name any one type of sensor. [1]

\_\_\_\_\_

**7** A doctor plans to store patients' records on a computer system.

(i) State any **three** Data Protection Laws that the doctor should obey.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_ [3]

(ii) Explain **two** possible effects if the doctor does not obey the Data Protection Laws.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_ [2]

**8(a)** Explain the purpose of a feasibility study.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ [3]

(b) Part of the systems life cycle involves the analysis stage. State **four** issues that need to be looked at during this stage.

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_ [4]

(c) Some of the stages in systems development are:

**A.** Problem definition

**B.** Investigation

**C.** Feasibility study

**D.** Analysis

Enter the correct letter in the table to indicate where each stage takes place

TASK	STAGE
Issue questionnaires	
Decide that a data file of customers is needed	
Describe the training needs	

[3]

(d) List **two** advantages to the business of writing a program instead of buying a software package.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_ [2]

(e) State **two** types of test data that can be used to test the program.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_ [2]

(f) Identify **one** item that should be involved in the user documentation.

\_\_\_\_\_

\_\_\_\_\_ [1]

9(a) Give **three** items which should be included in the technical documentation of a program but not in the user documentation.

1. \_\_\_\_\_ [1]

2. \_\_\_\_\_ [1]

3. \_\_\_\_\_ [1]

(b) Give **two** reasons of user documentation other than the name of the program.

1. \_\_\_\_\_

2. \_\_\_\_\_ [2]

10(a) State **two** advantages of using a high level language rather than a low level language to write programs.

1: \_\_\_\_\_

\_\_\_\_\_

2: \_\_\_\_\_

\_\_\_\_\_ [2]

(b) Procedure or subroutines are often compiled before they are stored in library. Give **one** advantage of storing procedures in this way.

\_\_\_\_\_

\_\_\_\_\_ [1]

(c) Suggest **two** ways that the top down design method could help a programmer who has to modify the program in future.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_ [2]

11 A large company plans to network their computers for general office use to replace stand alone microcomputers.

(a) Draw a labelled diagram of the network showing hardware devices and the links between them. [4]

(b) Name **two** typical kinds of software packages other than spreadsheets which you would expect to be available for office use and describe how they might be used.

Package 1. \_\_\_\_\_

Use. \_\_\_\_\_ [2]

Package 2. \_\_\_\_\_

Use \_\_\_\_\_ [2]

(c) Describe **two** security problems that might be created by the introduction of the network of microcomputers.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ [2]

(d) Describe **one** advantage of introducing the network.

\_\_\_\_\_  
\_\_\_\_\_ [2]

- 12 A school wants to enable pupils to communicate using computers on a Wide Area Network.

State **two** on-line services which would be available on the WAN that could help pupils with their school work.

1. \_\_\_\_\_

2. \_\_\_\_\_ [2]

- 13 A company stores a stock list of Jeans in a computer file. Several records are shown in the diagram.

Item Code	Colour	Location code	Quantity	Cost	Sell(\$)
12134	B	L24	100	180	270
16572	W	C58	42	150	225
15462	B	R39	28	280	420
23156	G	L27	72	320	480
43287	W	C48	94	60	90
54387	B	R27	8	420	630

- (a) Write down an item of string data that is stored.

\_\_\_\_\_ [1]

- (b) Which field would be used as a key field?

\_\_\_\_\_ [1]

- (c) State **two** reasons why the colour has been coded.

\_\_\_\_\_  
 \_\_\_\_\_ [2]

- (d) Describe **two** validation checks that would be made on the location codes as they are entered into the file.

\_\_\_\_\_  
 \_\_\_\_\_ [2]

- (e) Which ITEM CODE(s) will be listed if the following search condition is 'input'?  
(SELL(4)>300)and (colour= "B")

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[2]

- (f) Write down a search condition to list all the Jeans which are not white that sell at less than \$400.

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[3]

- 14** Study the following algorithm and answer the questions that follow.

Set Count to Zero

Set Sum to Zero

Input Total Mark

Input Mark

Repeat

While Mark>Total Mark DO

Input Mark

Endwhile

Percentage = Mark/Total Mark x 100

Add 1 to Count

Input next mark

Until Mark L O

Divide sum by count

Output Average Mark

- (a) With the help of a trace table, dry run the algorithm for the following marks; 20,15,30,-1 when the total mark is 20.

Total Mark	Mark	Count	Percentage	Sum	Average
	0			0	

[4]

- (b) The algorithm uses both the Repeat....Until and While...End while loop constructs. Give **one** difference between the types of loop constructs.

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[2]

- (c) State **one** advantage and **one** disadvantage of using algorithms as programming tools.

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[2]

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