

# ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

**General Certificate of Education Ordinary Level** 

### **COMPUTER SCIENCE**

4021/3

PAPER 3 Practical

**SPECIMEN PAPER** 

3 hours

Additional materials: CD

**TIME** 3 hours

#### INSTRUCTIONS TO CANDIDATES

- 1. Insert your name, Centre number and candidate number as a header.
- 2. Answer **all** questions.
- 3. Indicate software you use for each question.
- 4. All answers must be printed.
- 5. Submit both the hard copy and soft copy of your answers.

#### INFORMATION TO THE CANDIDATE

1. This paper consists of question on: Programming 50 marks,

Database30 marksWeb design20 marksPaper total is100 marks

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

#### This question paper consists of 4 printed pages.

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## Answer all questions.

For each question, indicate software used.

1.

| 1. | Design an interface and write a code that prompts a user to enter his/her name then, the output will be shown e.g. "Hello Chipo."   |   |               |                  |                  | [10]             |              |      |
|----|---|---|---------------|------------------|------------------|------------------|--------------|------|
| 2. |   | a program code to ge<br>an use the random cla |               | ndom n           | umber b          | etween 1 to      | 6.           |      |
|    |   |   | Click to      | generat<br>numbe |                  | m                |              |      |
|    | Produ   | ce the interface above                        |               |                  |                  |                  |              | [10] |
| 3. | Write   | a program code to dis                         | play the ha   | ırsh patt        | ern as s         | hown below       |              |      |
|    |   | #<br>#<br>#<br>#<br>#                         | #<br># #<br># | #<br>#<br>#<br># | #<br>#<br>#<br># | #<br>#<br>#<br># |              |      |
|    | Print t   | he code and interface                         | above.        |                  |                  |                  |              | [15] |
| 4. | Write<br>numb   | and design a program<br>er.                   | to determi    | ne whet          | ther an i        | nput numbe       | r is an even |      |
|    | Print t   | he code and the interf                        | ace           |                  |                  |                  |              | [15] |
| 5. | <ul> <li>(a) Create a website with the following:  The title of your Website is "Matulise;"  Welcome to Frecy High School;  We offer practical subjects at 'O' Level;  We offer Arts, Commercials and Sciences at 'A' Level.</li> <li>(b) Show pictures on the website you created in (a).  Save document as 'School.'</li> </ul> |   |               |                  |                  |                  |              |      |
|    |   | Print web pages crea                          |               |                  |                  |                  |              | [20] |

**6. (a)** Create **three** related tables, 'customer', 'products' and 'orders' as shown:

#### **Customers**

| <b>Customer ID</b> | First Name | Last Name |
|--------------------|------------|-----------|
| 1                  | Peter      | Homela    |
| 2                  | Gibson     | Ndlovu    |
| 3                  | James      | Moyo      |
| 4                  | John       | Sibanda   |
| 5                  | Alfred     | Matare    |
| 6                  | Susan      | Brown     |
| 7                  | Thomas     | Meki      |
| 8                  | Tafadzwa   | Chaminuka |
| 9                  | Thulani    | Mangena   |
| 10                 | Solomon    | Mhlanga   |
| 11                 | Charles    | Jones     |

## **Products**

| <b>Product ID</b> | <b>Product Name</b> | Price |
|-------------------|---------------------|-------|
| 1                 | Deskjet Printer     | \$200 |
| 2                 | Dell Desktop        | \$190 |
| 3                 | Laptop              | \$175 |
| 4                 | Toner               | \$50  |
| 5                 | Cartridge           | \$40  |
| 6                 | Canon Printer       | \$65  |
| 7                 | Typek A4            | \$25  |

### **Orders**

| Order ID | <b>Customer ID</b> | <b>Product ID</b> |
|----------|--------------------|-------------------|
| 1        | 1                  | 1                 |
| 2        | 2                  | 2                 |
| 3        | 10                 | 3                 |
| 4        | 10                 | 4                 |
| 5        | 3                  | 5                 |
| 6        | 4                  | 1                 |
| 7        | 5                  | 3                 |
| 8        | 6                  | 6                 |
| 9        | 7                  | 4                 |
| 10       | 8                  | 2                 |
| 11       | 1                  | 6                 |
| 12       | 6                  | 1                 |
| (New)    | 0                  | 0                 |

(b) Establish the relationship among the tables in (a).

[15]

Print the screenshot of the result.

[4]

| (c) | Using tables in (a), create a query that returns the Firstname and Lastname of all customers who have ordered a product. |     |  |  |
|-----|--|-----|--|--|
|     | Name it "Customer orders."   | [5] |  |  |
| d)  | Produce a report from 'product' table in (a) and name it "Customer report."  | [4] |  |  |
| e)  | Export the report in (d) to a package of your choice.  | [2] |  |  |