ECDL / ICDL Computing

Sample Part-Test

The following is a sample part-test for ECDL / ICDL Computing. This sample part-test contains 18 questions giving a total of 18 marks.

The actual ECDL / ICDL Computing certification test contains 36 questions giving a total of 36 marks. The candidate has passed the test if he/she scores 27 out of 36 marks. The pass mark for the module is 75%. The duration of the actual ECDL / ICDL Computing certification test is 45 minutes.

Although the ECDL / ICDL Computing sample part-test is not a certification test it does give an indication about the scope and approach adopted within the actual ECDL / ICDL Computing certification test. All test items within the actual ECDL / ICDL Computing certification tests are based on ECDL / ICDL Computing Syllabus Version 1.0. For further information about the coverage of Skill Sets and Knowledge Areas in the ECDL / ICDL Computing tests please refer to ECDL / ICDL Computing Syllabus Version 1.0 which is available for download at the appropriate section of the Programmes page of www.ecdl.org

Module Goals

ECDL / ICDL Computing sets out essential concepts and skills relating to the ability to use computational thinking and coding to create simple computer programs.

Successful candidates will be able to:

- Understand key concepts relating to computing and the typical activities involved in creating a program.
- Understand and use computational thinking techniques like problem decomposition, pattern recognition, abstraction and algorithms to analyse a problem and develop solutions.
- Write, test and modify algorithms for a program using flowcharts and pseudocode.
- Understand key principles and terms associated with coding and the importance of well-structured and documented code.
- Understand and use programming constructs like variables, data types, and logic in a program.
- Improve efficiency and functionality by using iteration, conditional statements, procedures and functions, as well as events and commands in a program.
- Test and debug a program and ensure it meets requirements before release.

Sample Part-Test 1

This is a sample part-test.

The following is the sample part-test for ECDL / ICDL Computing. This test consists of 18 questions with 1 mark available for each question. The total marks available are 18 marks.

1 Which one of the following best describes the term machine code? **[1 mark]**

a. A series of 1's and 0's created by the computer from source code. ☐

b. A pictorial way of representing an algorithm. ☐

c. A number of simple instructions that should be carried out one after the other. ☐

d. A description explaining what a program is designed to do and how it works. ☐

2 Which one of the following best describes the activity of clearly defining the problems to be solved when creating a new program? **[1 mark]**

a. Design. ☐

b. Enhancement. ☐

c. Programming. ☐

d. Analysis. ☐

3 You have been asked to design a computer system that will manage hotel reservations. The system will have to solve challenges such as storing guest details, room number and room type and also check in and check out dates of guests.

Which one of the following has a pattern that can be repeated in the system? **[1 mark]**

a. A procedure for entering the name of the hotel on the front of the system. ☐

b. A procedure for creating guest accounts. ☐

c. A procedure for installing the system on a computer. ☐

d. A procedure for uninstalling the system from a computer. ☐

4 Which one of the following is a pictorial way to represent a set of instructions to solve a problem? **[1 mark]**

a. Function. ☐

b. Machine code. ☐

c. Flowchart. ☐

d. Boolean expression. ☐

Continued…

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Sample Part-Test 1 (Contd.)

5 Which one of the following is a piece of text in the code that explains to people what the code does? **[1 mark]**

a. Specification. ☐
b. Comment. ☐
c. Array. ☐
d. Recursion. ☐

6 Which one of the variable names below should be chosen to store a customer's private access code details? **[1 mark]**

a. myName. ☐
b. myAge. ☐
c. myPIN. ☐
d. myTotal. ☐

7 Which one of the following is the Boolean logic expression for "not equal to"? **[1 mark]**

a. Not ☐
b. <= ☐
c. < ☐
d. != ☐

8 Which one of the following is a type of loop used for iteration? **[1 mark]**

a. Integer. ☐
b. While. ☐
c. Float. ☐
d. List. ☐

9 Which one of the following best describes a subroutine that calculates a value for the program in which it is contained? **[1 mark]**

a. Debugging. ☐
b. Procedure. ☐
c. For loop. ☐
d. Function. ☐

10 Which one of the following is a type of error where a construct in the programming language is written incorrectly? **[1 mark]**

a. Syntax. ☐
b. Recursion. ☐
c. Logic. ☐
d. Variable. ☐

Continued…

Sample Part-Test 1 (Contd.)

11 Open the file **Flowchart.docx**. The flowchart algorithm partially describes the procedure **Rollercoaster Rules**. Complete the flowchart algorithm based on the information provided. Save and close the **Flowchart.docx** file. **[1 mark]**

12 Open the file **Division.py**. Update the short "split the bill" program with the appropriate code to carry out the calculation **bill divided by people**. Save and close the **Division.py** file. **[1 mark]**

13 Open the file **Initialising_String.py**. Insert code in the program below the line **# define and initialise myPet** that will define a variable called **myPet** and initialise it using the pet name **Felix**. Save and close the **Initialising_String.py** file. **[1 mark]**

14 Open the file **Using_Integers.py**. Edit the code in the program so that the number **24** assigned to variable **myNumber** is given an **integer** data type. Save and close the **Using_Integers.py** file. **[1 mark]**

15 Open the file **Data_Output.py**. The program asks the user what height they are. Update the program to output the user's height to the screen. Save and close the **Data_Output.py** file. **[1 mark]**

16 Open the file **If_Statement.py**. Insert code into the program which uses an If…else conditional statement to check if a student's grade result is **greater than or equal to 75, or less than 75**. Save and close the **If_Statement.py** file. **[1 mark]**

17 Open the file **Function.py**. Modify the program to define a function called **subtractNumbers**, which will subtract two numbers taken in from the user, then return the result of the calculation. Save and close the **Function.py** file. **[1 mark]**

18 Open the file **Syntax.py**. Identify and fix one spelling and one punctuation error in the code. Save and close the **Syntax.py** file.

Save and close all open files and close any open applications. **[1 mark]**

This is the end of the test.

If you have time, check the work you have done.

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