Answer key

COM161 (61344) - Problem Solving for Computing. 2024-25.

Week 8 Class Test 1 (40% of overall mark)

Question 1

2 points

Which of the following is the correct if clause to determine whether choice is anything other than 10?

A if not(choice < 10 and choice > 10):

B if choice != 10

C if choice <> 10:

D if choice != 10: Correct answer

Question 2

2 points

Which of the following represents an example to calculate the sum of numbers (that is, an accumulator), given that the number is stored in the variable number and the total is stored in the variable total?

A total = number

B total + number = total

C number += number

D total += number Correct answer

Question 3

2 points

What will be the output sequences of numbers from the following code: for i in range(2, 5): print(i)?

A 2 3 4 5 6

B 3 4 5

C 2 3 4 5

D 2 3 4 Correct answer

Question 4

2 points

How would you use the range function to iterate from 10 to 1 in descending order?

A range(10, 1, -1)

B range(10, -1, -1)

C range(10, 1, 0)

(D) range(10, 0, -1) Correct answer

Question 5

2 points

Which of the following relational operators is used to check if two values are not equal in Python?

(A) != Correct answer

(B) ==

(C) <>

(D) <=

Question 6

2 points

How does Python handle nested decision structures?

(A) They must be avoided

(B) They require the elif keyword

(C) They must be indented properly Correct answer

(D) They are executed in parallel

Question 7

2 points

What does the following expression mean?

x >= y

(A) x is greater than or equal to y Correct answer

(B) x is less than or equal to y

(C) x is less than y

(D) x is greater than y

Question 8

2 points

When will the following loop terminate?

```
while keep_going != 999:
```

(A) when keep_going refers to a value less than 999

(B) when keep_going refers to a value equal to 999 Correct answer

(C) when keep_going refers to a value greater than 999

(D) when keep_going refers to a value not equal to 999

Question 9

2 points

To rename a file from filea.txt to fileb.txt we need to do the following:

(A) Import the `os` library and use the command `rename.os('fileb.txt', 'filea.txt')`

(B) Import the `os` library and use the command `os.rename('fileb.txt', 'filea.txt')`

(C) Import the `os` library and use the command `os.rename('filea.txt', 'fileb.txt')` Correct answer

(D) Import the `os` library and use the command `rename.os('filea.txt', 'fileb.txt')`

(E) Import the `rename` library and use the command `rename.rename('filea.txt', 'fileb.txt')`

Question 10

2 points

What will be the output when the function get_random_number() is called?

```
1  import random
2
3
4  def get_random_number():
5      return random.randint(1, 10)
6
7
8  result = get_random_number()
9  print(result)
```

(A) A real number between 1 and 10, inclusive.

(B) A real number between 1 and 9, inclusive.

(C) A whole number between 1 and 10, inclusive. Correct answer

(D) A whole number between 1 and 9, inclusive.

Question 11

2 points

There are two types of functions:

(A) keyword functions and library functions.

(B) Numerical functions and string functions

(C) Empty functions and non-empty functions.

(D) Boolean functions and string functions.

(E) Void functions and value returning functions. Correct answer

Question 12

2 points

A function can call itself in Python

(A) True — Correct answer

(B) False

Question 13

2 points

What exception occurs when attempting to open a file that does not exist in read mode ('r') in Python?

(A) Exception

(B) FileNotFoundError — Correct answer

(C) ValueError

(D) FileError

Question 14

2 points

A global constant is

(A) A constant that is defined using the keyword const.

(B) A constant that can have its value changed at any time in the program.

(C) A constant that is defined inside the main function of a program.

(D) A constant that is defined outside all functions of a program. — Correct answer

Question 15

2 points

What is the output when this code is executed if the file data.txt does not exist?

```
1  try:
2      file = open("data.txt", "r")
3      content = file.read()
4      print(content)
5  except FileNotFoundError:
6      print("Error: The file was not found.")
7  finally:
8      print("File processing has ended")
```

(A) Error: The file was not found.

(B) Error: The file was not found.
File processing has ended — Correct answer

(C) FileNotFoundError

File processing has ended

(D) File processing has ended

Question 16

2 points

What is a relative path in the context of file handling in Python?

(A) A path that provides the full address of a file starting from the root directory

(B) A path that specifies the location of a file in relation to the current working directory — Correct answer

(C) A path that can reference files in both the current directory and its subdirectories

(D) A path that includes a drive letter, such as C:\, to specify the file location

Question 17

2 points

Which **line** contains a minor error?

```
1.  x = input("Enter a number: ")
2.  y = input("Enter another number: ")
3.  result = x + y
4.  print("The result is:", result)
```

(A) Line 4

(B) Line 1

(C) Line 2

(D) Line 3 — Correct answer

Question 18

2 points

According to the behaviour of integer division, when an integer is divided by an integer, the result will be a **float**.

(A) True — Correct answer

(B) False

Question 19

2 points

The **[Blank 1]** function reads a piece of data that has been entered at the keyboard and returns that piece of data, as a **[Blank 2]**, back to the program

Blank 1 input — Correct answer

Responses must contain the acceptable answers

Blank 2 string — Correct answer

Responses must contain the acceptable answers

Scoring: Allow partial credit

Question 20

2 points

When applying the **.3f** formatting specifier to the number **76.15854**, the result is _____.

76.159	Correct answer

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Blank 1

Blank 2

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2 points

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