Which line of the following Python program will never execute? def stuff(): print('Hello'); return; print('World'); stuff()

Select one:

- a. print('Hello')
- ⦿ b. print ('World') ✔
- c. stuff()
- d. return

The correct answer is: print ('World')

Which of the parts of a computer actually executes the program instructions?

Select one:

- a. Main Memory
- b. Input/Output devices
- c. Secondary Memory
- ⦿ d. central Processing Unit ✔

The correct answer is: central Processing Unit

Question 3

Correct

Mark 1.00 out of 1.00

⚐ Flag question

What does the following Python code print out? (Note that this is a bit of a trick question and the code has what many would consider to be a flaw/bug - so read carefully). def addtwo(a, b): added = a + b; return a; x = addtwo(2, 7); print(x);

Select one:

⦿ a. 2 ✔

○ b. 7

○ c. 9

○ d. 14

The correct answer is: 2

Question 4

Correct

Mark 1.00 out of 1.00

⚐ Flag question

Which of these words is a reserved word in Python ?

Select one:

○ a. names

⦿ b. While ✔

○ c. payroll

○ d. pizza

The correct answer is: While

You look at the following text: if x == 6 : print('Is 6'); print('Is Still 6'); print('Third 6'); It looks perfect but Python is giving you an 'Indentation Error' on the second print statement. What is the most likely reason?

Select one:

○ a.   Python thinks 'Still' is a mis-spelled word in the string

○ b.   Python has reached its limit on the largest Python program that can be run

◉ c.   You have mixed tabs and spaces in the file   ✔

○ d.   In order to make humans feel inadequate, Python randomly emits 'Indentation Errors' on perfectly good code - after about an hour the error will just go away without any changes to your program

The correct answer is: You have mixed tabs and spaces in the file

Which of these statements is used to indicate that class a will inherit all the features of class b?

Select one:

○ a.   class a inherits b :

◉ b.   class a(b) :   ✔

○ c.   class a instanceOf b :

○ d.   a=b++;

The correct answer is: class a(b) :

Question 7

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What character do you add to the "+" or "*" to indicate that the match is to be done in a non-greedy manner?

Select one:

○ a. ^

◉ b. ?   ✔

○ c. ++

○ d. **

The correct answer is: ?

Question 8

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What does the following Python code print out? stuff = ['joseph', 'sally', 'walter', 'tim']; print(stuff[2]);

Select one:

◉ a. walter   ✔

○ b. sally

○ c. tim

○ d. joseph

The correct answer is: walter

Question 9

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What is the best way to think about a "Syntax Error" while programming?

Select one:

- a. The computer needs to have its software upgraded
- ● b. The computer did not understand the statement that you entered ✔
- c. The computer is overheating and just wants you to stop to let it cool down
- d. The computer has used GPS to find your location and hates everyone from your town

The correct answer is: The computer did not understand the statement that you entered

Question 10

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which of the following lines of Python is equivalent to the following sequence of statements assuming that counts is a dictionary? if key in counts: counts[key] = counts[key] + 1; else: counts[key] = 1;

Select one:

- a. counts[key] = (counts[key] * 1) + 1
- ● b. counts[key] = counts.get(key,0) + 1 ✔
- c. counts[key] = (key in counts) + 1
- d. counts[key] = counts.get(key,-1) + 1

The correct answer is: counts[key] = counts.get(key,0) + 1

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What is a term commonly used to describe the Python dictionary feature in other programming languages?

Select one:

○ a.   closures

○ b.   Sequences

◉ c.   associative arrays ✔

○ d.   Lambdas

The correct answer is: associative arrays

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which of these operators is not a comparison / logical operator?

Select one:

○ a.   !=

○ b.   ==

◉ c.   = ✔

○ d.   <

The correct answer is: =

What would the following Python code print out? stuff = dict(); print(stuff['candy']);

Select one:

- ○ a.   -1
- ○ b.   candy
- ○ c.   0
- ◉ d.   The program would fail with a traceback   ✔

The correct answer is: The program would fail with a traceback

For the following code: astr = 'Hello bob'; istr = 0; try: istr = int(astr); except: istr = -1; What will the value be for istr after this code executes?

Select one:

- ◉ a.   -1   ✔
- ○ b.   It will be the 'Not a number' value (i.e. NaN)
- ○ c.   It depends on the position in the collating sequence for the letter 'H'
- ○ d.   The istr variable will not have a value

The correct answer is: -1

Question 15

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What word does the following sequence of numbers represent in aScII: 108, 105, 115, 116

Select one:

○ a.   webs

○ b.   dict

○ c.   mist

◉ d.   list ✔

The correct answer is: list

Question 16

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What will be the value of x after the following statement executes: x = 1 + 2 * 3 - 8 / 4

Select one:

◉ a.   5.0 ✔

○ b.   4

○ c.   8

○ d.   2.0

The correct answer is: 5.0

Question 17

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which Python keyword indicates the start of a function definition?

Select one:

- a. return
- b. continue
- c. rad
- ● d. def ✔

The correct answer is: def

Question 18

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What does the Python dir() function show when we pass an object into it as a parameter?

Select one:

- a. It shows the number of parameters to the constructor
- ● b. It shows the methods and attributes of the object ✔
- c. It shows the type of the object
- d. It shows the parent class

The correct answer is: It shows the methods and attributes of the object

Question 19

Correct

Mark 1.00 out of 1.00

⚐ Flag question

Using the following tuple, how would you print 'Wed'? days = ('Mon', 'Tue', 'Wed', 'Thu', 'Fri', 'Sat', 'Sun');

Select one:

○ a.   print[days(2)]

○ b.   print(days(2))

◉ c.   print(days[2])   ✔

○ d.   print(days{2})

The correct answer is: print(days[2])

Question 20

Correct

Mark 1.00 out of 1.00

⚐ Flag question

What is the purpose of the second parameter of the get() method for Python dictionaries?

Select one:

◉ a.   To provide a default value if the key is not found   ✔

○ b.   The key to retrieve

○ c.   an alternate key to use if the first key cannot be found

○ d.   The value to retrieve

The correct answer is: To provide a default value if the key is not found

Question 21

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What does the following Python code do? fhand = open('mbox-short.txt'); inp = fhand.read();

Select one:

- ○ a. checks to see if the file exists and can be written
- ○ b. Prompts the user for a file name
- ● c. Reads the entire file into the variable inp as a string ✔
- ○ d. Turns the text in the file into a graphic image like a PNG or JPG

The correct answer is: Reads the entire file into the variable inp as a string

Question 22

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What does the following code print out? print("123" + "abc")

Select one:

- ○ a. 123+abc
- ○ b. This is a syntax error because you cannot add strings
- ● c. 123abc ✔
- ○ d. hello world

The correct answer is: 123abc

Question 23

Correct

Mark 1.00 out of 1.00

⚐ Flag question

What does the break statement do?

Select one:

- ○ a. Jumps to the "top" of the loop and starts the next iteration
- ⦿ b. Exits the currently executing loop ✔
- ○ c. Resets the iteration variable to its initial value
- ○ d. Exits the program

The correct answer is: Exits the currently executing loop

Question 24

Correct

Mark 1.00 out of 1.00

⚐ Flag question

What is the iteration variable in the following Python code: friends = ['Joseph', 'Glenn', 'Sally']; for friend in friends : print('Happy New Year:', friend); print('done!');

Select one:

- ○ a. Joseph
- ○ b. Sally
- ○ c. Glenn
- ⦿ d. friend ✔

The correct answer is: friend

Question 25

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What is a common use of Python dictionaries in a program?

Select one:

- a. Sorting a list of names into alphabetical order
- b. computing an average of a set of numbers
- c. Splitting a line of input into words using a space as a delimiter
- ⊙ d. building a histogram counting the occurrences of various strings in a file ✔

The correct answer is: building a histogram counting the occurrences of various strings in a file

Question 26

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What is the proper way to say "good-bye" to Python?

Select one:

- a. while
- ⊙ b. quit() ✔
- c. // stop
- d. #EXIT

The correct answer is: quit()

What is "self" typically used for in a Python method within a class?

Select one:

- a. The number of parameters to the method
- b. To set the residual value in an expression where the method is used
- c. To terminate a loop
- ● d. To refer to the instance in which the method is being called ✔

The correct answer is: To refer to the instance in which the method is being called

What is the primary use of the Python dictionary?

Select one:

- a. To look up all of the methods which are available on a Python object
- b. To make sure that the definitions of the Python reserved words are available in different languages (French, Spanish, etc)
- c. To insure that all Python reserved words are properly spelled
- ● d. To store key / value pairs ✔

The correct answer is: To store key / value pairs

What will the following program print out: >>> x = 15; >>> x = x + 5; >>> print(x)

Select one:

- ⦿ a. 20 ✔
- ○ b. 15
- ○ c. "print x"
- ○ d. 5

The correct answer is: 20

If we open a file as follows: xfile = open('mbox.txt'); What statement would we use to read the file one line at a time?

Select one:

- ⦿ a. for line in xfile: ✔
- ○ b. REad (xfile,*,ENd=10) line
- ○ c. while () {
- ○ d. while (getline (xfile,line)) {

The correct answer is: for line in xfile:

In Python, how do you indicate the end of the block of code that makes up the function?

Select one:

○ a.   You put the colon character (😊 in the first column of a line

○ b.   You add a line that has at least 10 dashes

○ c.   You add the matching curly brace that was used to start the function }

◉ d.   You de-indent a line of code to the same indent level as the def keyword   ✔

The correct answer is: You de-indent a line of code to the same indent level as the def keyword

What type of data is produced when you call the range() function? x = list(range(5));

Select one:

○ a.   a list of characters

○ b.   a string

○ c.   a list of words

◉ d.   a list of integers   ✔

The correct answer is: a list of integers

What will the following Python code print out? def func(x) : print(x); func(10); func(20)

Select one:

- a.   func func
- b.   10 20
- c.   x 20
- d.   x 10 x 20

The correct answer is: 10 20

What does the "[0-9]+" match in a regular expression?

Select one:

- a.   any mathematical expression
- b.   any number of digits at the beginning of a line
- c.   Several digits followed by a plus sign
- d.   One or more digits

The correct answer is: One or more digits

What is the iteration variable in the following Python code? for letter in 'banana' : print(letter);

Select one:

○ a. 'banana'

○ b. in

◉ c. letter ✔

○ d. for

The correct answer is: letter

What does the following code print out? def thing(): print('Hello'); print('There');

Select one:

○ a. Hello

◉ b. There ✔

○ c. Hello There

○ d. thing Hello There

The correct answer is: There

What does the continue statement do?

Select one:
- ○ a. Resets the iteration variable to its initial value
- ◉ b. Jumps to the "top" of the loop and starts the next iteration ✔
- ○ c. Exits the currently executing loop
- ○ d. Exits the program

The correct answer is: Jumps to the "top" of the loop and starts the next iteration

Where in the computer is a variable such as "X" stored? x = 123

Select one:
- ○ a. Secondary Memory
- ○ b. central processing unit
- ○ c. Output devices
- ◉ d. Main Memory ✔

The correct answer is: Main Memory

Question 39

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What will the following Python code print out? friends = ['Joseph', 'Glenn', 'Sally']; friends.sort(); print(friends[0]);

Select one:

○ a. Joseph

⦿ b. Glenn ✔

○ c. Sally

○ d. friends

The correct answer is: Glenn

Question 40

Incorrect

Mark 0.00 out of 1.00

⚑ Flag question

What Python function would you use if you wanted to prompt the user for a file name to open?

Select one:

⦿ a. file_input() ✘

○ b. gets()

○ c. input()

○ d. alert()

The correct answer is: input()

Question 41

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What would the following mean in a regular expression? [a-z0-9]

Select one:

○ a.   Match any text that is surrounded by square braces

○ b.   Match any number of lowercase letters followed by any number of digits

◉ c.   Match a lowercase letter or a digit   ✔

○ d.   Match anything but a lowercase letter or digit

The correct answer is: Match a lowercase letter or a digit

Question 42

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which of the following is rarely used in Object Oriented Programming?

Select one:

○ a.   Method

◉ b.   destructor   ✔

○ c.   attribute

○ d.   constructor

The correct answer is: destructor

Question 43

Correct

Mark 1.00 out of 1.00

⚑ Flag question

For the following code: if x < 2 : print('below 2'); elif x >= 2 : print('Two or more'); else : print('Something else'); What value of 'x' will cause 'Something else' to print out?

Select one:

○ a. x = -2

○ b. x = 2.0

◉ c. This code will never print 'Something else' regardless of the value for 'x' ✔

○ d. x = 2

The correct answer is: This code will never print 'Something else' regardless of the value for 'x'

Question 44

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which of the following Python statements would print out the length of a list stored in the variable data?

Select one:

◉ a. print(len(data)) ✔

○ b. print(data.length)

○ c. print(strlen(data))

○ d. print(data.Len)

The correct answer is: print(len(data))

Question 45

Correct

Mark 1.00 out of 1.00

What is the most important benefit of writing your own functions?

Select one:

- a. Following the rule that no function can have more than 10 statements in it
- b. To avoid having more than 10 lines of sequential code without an indent or de-indent
- ◉ c. avoiding writing the same non-trivial code more than once in your program ✔
- d. Following the rule that whenever a program is more than 10 lines you must use a function

The correct answer is: avoiding writing the same non-trivial code more than once in your program

---

Question 46

Correct

Mark 1.00 out of 1.00

What is true about the following code segment: if x == 5 : print('Is 5'); print('Is Still 5'); print('Third 5')

Select one:

- ◉ a. depending on the value of x, either all three of the print statements will execute or none of the statements will execute ✔
- b. Only two of the three print statements will print out if the value of x is less than zero.
- c. The string 'Is 5' will never print out regardless of the value for x.
- d. The string 'Is 5' will always print out regardless of the value for x.

The correct answer is: depending on the value of x, either all three of the print statements will execute or none of the statements will execute

What is "code" in the context of this course?

Select one:

- ○ a. a way to encrypt data during World War II
- ○ b. a password we use to unlock Python features
- ⦿ c. a sequence of instructions in a programming language ✔
- ○ d. a set of rules that govern the style of programs

The correct answer is: a sequence of instructions in a programming language

How would you use the index operator [] to print out the letter q from the following string? x = 'From marquard&uct.ac.za';

Select one:

- ○ a. print(x[7])
- ○ b. print x[-1]
- ○ c. print(x[9])
- ⦿ d. print(x[8]) ✔

The correct answer is: print(x[8])

What will the following Python program print out? (This is a bit tricky so look carefully). def hello(): print("Hello"); print("There"); x = 10; x = x + 1;

Select one:

- a. Hello There 11
- b. Nothing will print ✔
- c. x = 11
- d. 11

The correct answer is: Nothing will print

What is the syntax to look up the fullname attribute in an object stored in the variable colleen?

Select one:

- a. colleen::fullname
- b. colleen->fullname
- c. colleen['fullname']
- d. colleen.fullname ✔

The correct answer is: colleen.fullname

Question 51

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Given the architecture and terminology we introduced in chapter 1, where are files stored?

Select one:

- ○ a. Motherboard
- ○ b. Main Memory
- ○ c. central Processor
- ◉ d. Secondary memory ✔

The correct answer is: Secondary memory

Question 52

Correct

Mark 1.00 out of 1.00

⚑ Flag question

If you write a Python program to read a text file and you see extra blank lines in the output that are not present in the file input as shown below, what Python string function will likely solve the problem? From: stephen.marquard@uct.ac.za; From: louis@media.berkeley.edu; From: zqian@umich.edu; From: rjlowe@iupui.edu; ...

Select one:

- ◉ a. rstrip() ✔
- ○ b. startswith()
- ○ c. trim()
- ○ d. ljust()

The correct answer is: rstrip()

Question 53

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Python scripts (files) have names that end with:

Select one:

- ⦿ a. .py   ✔
- ○ b. .doc
- ○ c. .exe
- ○ d. .png

The correct answer is: .py

Question 54

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which came first, the instance or the class?

Select one:

- ○ a. instance
- ⦿ b. class   ✔
- ○ c. function
- ○ d. method

The correct answer is: class

In Python what is the input() feature best described as?

Select one:

- ○ a.   a reserved word
- ○ b.   a data structure that can hold multiple values using strings as keys
- ◉ c.   a built-in function   ✔
- ○ d.   a user-defined function

The correct answer is: a built-in function

In the following example, an error occurs in "line3" that normally causes a traceback if it were not in a try/except. line1 try: line2 line3 line4 except : line5 line6. What is the sequence of lines executed in this program?

Select one:

- ◉ a.   line1, line2, line3, line5, line6   ✔
- ○ b.   line1, line5, line6
- ○ c.   line1, line2, line3, line6
- ○ d.   line1, line4, line5, line6

The correct answer is: line1, line2, line3, line5, line6

Question 57

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What will the following code print out? x = 0; if x < 2 : print('Small'); elif x < 10 : print('Medium'); else : print('LaRGE'); print('all done')

Select one:

- ○ a.   LaRGE all done
- ○ b.   Small Medium LaRGE all done
- ○ c.   all done
- ◉ d.   Small all done   ✔

The correct answer is: Small all done

Question 58

Correct

Mark 1.00 out of 1.00

⚑ Flag question

How would you use string slicing [:] to print out 'uct' from the following string? x = 'From marquard@uct.ac.za';

Select one:

- ○ a.   print(x[14:3])
- ◉ b.   print(x[14:17])   ✔
- ○ c.   print(x[15:18])
- ○ d.   print(x[14/17])

The correct answer is: print(x[14:17])

Correct

Mark 1.00 out of
1.00

⚑ Flag question

What does the following Python program print out? tot = 0; for i in [5, 4, 3, 2, 1] : tot = tot + i; print(tot);

Select one:

○ a. 0

◉ b. 15   ✔

○ c. 10

○ d. 5

The correct answer is: 15

Correct

Mark 1.00 out of
1.00

⚑ Flag question

How would you print out the following variable in all upper case in Python? greet = 'Hello bob'

Select one:

○ a.   print(uc($greet));

○ b.   puts(greet.ucase);

◉ c.   print(greet.upper())   ✔

○ d.   console.log(greet.toUppercase());

The correct answer is: print(greet.upper())

The following code sequence fails with a traceback when the user enters a file that does not exist. How would you avoid the traceback and make it so you could print out your own error message when a bad file name was entered? fname = input('Enter the file name: ');
fhand = open(fname)

Select one:

○ a. signal handlers

○ b. setjmp / longjmp

○ c. try / catch / finally

◉ d. try / except   ✔

The correct answer is: try / except

What would the following Python code print out? fruit = 'banana'; fruit[0] = 'b'; print(fruit);

Select one:

○ a. banana

○ b. banana

○ c. [0]

◉ d. Nothing would print - the program fails with a traceback error   ✔

The correct answer is: Nothing would print - the program fails with a traceback error

What is the purpose of the following Python code? fhand = open('mbox.txt'); x = 0; for line in fhand : x = x + 1; print(x)

Select one:

- ⦿ a.   count the lines in the file 'mbox.txt'   ✔
- ○ b.   Remove the leading and trailing spaces from each line in mbox.txt
- ○ c.   convert the lines in mbox.txt to lower case
- ○ d.   Reverse the order of the lines in mbox.txt

The correct answer is: count the lines in the file 'mbox.txt'

What will the following Python program print out? x = -1; for value in [3, 41, 12, 9, 74, 15] : if value > x : x = value; print(x);

Select one:

- ○ a.   15
- ○ b.   -1
- ○ c.   9
- ⦿ d.   74   ✔

The correct answer is: 74

Question 65

Correct

Mark 1.00 out of 1.00

What would the following Python code sequence print out? zap = "hello there bob"; print(zap[4]);

Select one:

- ⦿ a. o ✔
- ○ b. hello
- ○ c. zap
- ○ d. e

The correct answer is: o

Question 66

Correct

Mark 1.00 out of 1.00

What will the following Python program print out? def greet(lang): if lang == 'es': return 'Hola'; elif lang == 'fr': return 'bonjour'; else: return 'Hello'; print(greet('fr'),'Michael')

Select one:

- ○ a. def Hola bonjour Hello Michael
- ⦿ b. bonjour Michael ✔
- ○ c. Hello Michael
- ○ d. Hola Michael

The correct answer is: bonjour Michael

What does the following Python sequence print out? x = 'From: Using the : character'; y = re.findall('^F.+:', x); print👍 ;

Select one:

○ a.   ^F.+:

○ b.   :

◉ c.   ['From: Using the :']   ✔

○ d.   From:

The correct answer is: ['From: Using the :']

What list method adds a new item to the end of an existing list?

Select one:

○ a.   pop()

○ b.   index()

◉ c.   append()   ✔

○ d.   add()

The correct answer is: append()

In the following Python loop, why are there two iteration variables (k and v)? c = {'a':10, 'b':1, 'c':22}; for k, v in c.items() : ...

Select one:

- ○ a.   because for each item we want the previous and current key
- ◉ b.   because the items() method in dictionaries returns a list of tuples ✔
- ○ c.   because there are two items in the dictionary
- ○ d.   because the keys for the dictionary are strings

The correct answer is: because the items() method in dictionaries returns a list of tuples

What is the difference between the "+" and "*" character in regular expressions?

Select one:

- ○ a.   The "+" matches the beginning of a line and the "*" matches the end of a line
- ○ b.   The "+" matches the actual plus character and the "*" matches any character
- ◉ c.   The "+" matches at least one character and the "*" matches zero or more characters ✔
- ○ d.   The "+" matches upper case characters and the "*" matches lowercase characters

The correct answer is: The "+" matches at least one character and the "*" matches zero or more characters

Question 71

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What will be the value of x when the following statement is executed: x = int(98.6)

Select one:

- ⦿ a.   98 ✔
- ○ b.   100
- ○ c.   99
- ○ d.   6

The correct answer is: 98

Question 72

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which of the following methods work both in Python lists and Python tuples?

Select one:

- ⦿ a.   index() ✔
- ○ b.   reverse()
- ○ c.   append()
- ○ d.   pop()

The correct answer is: index()

Question 73

Correct

Mark 1.00 out of 1.00

⚐ Flag question

In the following code (numbers added) - which will be the last line to execute successfully? (1) astr = 'Hello bob' (2) istr = int(astr) (3) print('First', istr) (4) astr = '123' (5) istr = int(astr) (6) print('Second', istr)

Select one:

⦿ a. 1   ✔

○ b. 5

○ c. 2

○ d. 4

The correct answer is: 1

Question 74

Correct

Mark 1.00 out of 1.00

⚐ Flag question

What do we use the second parameter of the open() call to indicate?

Select one:

○ a.   What disk drive the file is stored on

⦿ b.   Whether we want to read data from the file or write data to the file   ✔

○ c.   How large we expect the file to be

○ d.   The list of folders to be searched to find the file we want to open

The correct answer is: Whether we want to read data from the file or write data to the file

Question 75

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What would the following Python code print out? abc = "With three words"; stuff = abc.split(); print(len(stuff))

Select one:

- ⚪ a. 1
- ⚪ b. 2
- ⦿ c. 3 ✔
- ⚪ d. 14

The correct answer is: 3

Question 76

Correct

Mark 1.00 out of 1.00

⚑ Flag question

a USb memory stick is an example of which of the following components of computer architecture?

Select one:

- ⚪ a. central Processing Unit
- ⦿ b. Secondary Memory ✔
- ⚪ c. Output device
- ⚪ d. Main Memory

The correct answer is: Secondary Memory

What is the difference between a Python tuple and Python list?

Select one:

- ⦿ a.   Lists are mutable and tuples are not mutable ✔
- ◯ b.   Lists maintain the order of the items and tuples do not maintain order
- ◯ c.   Lists are indexed by integers and tuples are indexed by strings
- ◯ d.   Tuples can be expanded after they are created and lists cannot

The correct answer is: Lists are mutable and tuples are not mutable

Which of the following is a comment in Python?

Select one:

- ⦿ a.   # This is a test ✔
- ◯ b.   /* This is a test */
- ◯ c.   // This is a test
- ◯ d.   * This is a test

The correct answer is: # This is a test

Question 79

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What does the Python input() function do?

Select one:

- a. Take a screen shot from an area of the screen
- b. Read the memory of the running program
- c. connect to the network and retrieve a web page.
- ● d. Pause the program and read data from the user ✔

The correct answer is: Pause the program and read data from the user

---

Question 80

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which of the following elements of a mathematical expression in Python is evaluated first?

Select one:

- ● a. Parentheses 🥚 ✔
- b. addition +
- c. Multiplication *
- d. Subtraction -

The correct answer is: Parentheses 🥚

In Object Oriented Programming, what is another name for the "attributes" of an object?

Select one:

- ⦿ a.   fields   ✔
- ○ b.   methods
- ○ c.   forms
- ○ d.   messages

The correct answer is: fields

Which of the following is NOT a good synonym for "class" in Python?

Select one:

- ⦿ a.   direction   ✔
- ○ b.   blueprint
- ○ c.   template
- ○ d.   pattern

The correct answer is: direction

Question 83

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which of the following is not one of the programming patterns covered in chapter 1?

Select one:

- ◉ a. Random steps   ✔
- ○ b. conditional Steps
- ○ c. Sequential Steps
- ○ d. Repeated Steps

The correct answer is: Random steps

Question 84

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What will the following code print out? smallest_so_far = -1; for the_num in [9, 41, 12, 3, 74, 15] : if the_num < smallest_so_far : smallest_so_far = the_num; print(smallest_so_far); (Hint: This is a trick question and most would say this code has a bug - so read carefully)

Select one:

- ◉ a. -1   ✔
- ○ b. 3
- ○ c. 74
- ○ d. 42

The correct answer is: -1

Which of the following is the way we match the "start of a line" in a regular expression?

Select one:

- ○ a. String.startsWith()
- ○ b. \linestart
- ○ c. str.startswith()
- ◉ d. ^   ✔

The correct answer is: ^

Given that Python lists and Python tuples are quite similar - when might you prefer to use a tuple over a list?

Select one:

- ○ a. For a list of items that want to use strings as key values instead of integers
- ○ b. For a list of items you intend to sort in place
- ◉ c. For a temporary variable that you will use and discard without modifying   ✔
- ○ d. For a list of items that will be extended as new items are found

The correct answer is: For a temporary variable that you will use and discard without modifying

Question 87

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What do we do to a Python statement that is immediately after an if statement to indicate that the statement is to be executed only when the if statement is true?

Select one:

- ⦿ a.   Indent the line below the if statement   ✔
- ○ b.   begin the statement with a curly brace {
- ○ c.   Start the statement with a "#" character
- ○ d.   Underline all of the conditional code

The correct answer is: Indent the line below the if statement

Question 88

Incorrect

Mark 0.00 out of 1.00

⚑ Flag question

What will the following Python program print out? def fred(): print("Zap"); def jane(): print("abc"); jane(); fred(); jane();

Select one:

- ○ a.   Zap Zap Zap
- ○ b.   Zap abc jane fred jane
- ○ c.   abc Zap abc
- ⦿ d.   Zap abc Zap   ✘

The correct answer is: abc Zap abc

What is the "wild card" character in a regular expression (i.e., the character that matches any character)?

Select one:

○ a.   .   ✔

○ b.   ^

○ c.   *

○ d.   +

The correct answer is: .

What is a good statement to describe the is operator as used in the following if statement: if smallest is None : smallest = value;

Select one:

○ a.   Is true if the smallest variable has a value of -1

○ b.   Looks up 'None' in the smallest variable if it is a string

○ c.   matches both type and value   ✔

○ d.   The if statement is a syntax error

The correct answer is: matches both type and value

Question 91

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which reserved word indicates the start of an "indefinite" loop in Python?

Select one:

- ○ a.   for
- ○ b.   def
- ◉ c.   while ✔
- ○ d.   break

The correct answer is: while

Question 92

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What will end up in the variable y after this code is executed? x , y = 3, 4

Select one:

- ○ a.   a dictionary with the key 3 mapped to the value 4
- ○ b.   3
- ○ c.   a two item tuple
- ◉ d.   4 ✔

The correct answer is: 4

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What keyword is used to indicate the start of a method in a Python class?

Select one:

- a. break
- ⦿ b. def ✔
- c. continue
- d. function

The correct answer is: def

Incorrect

Mark 0.00 out of 1.00

⚑ Flag question

Which of the following lines will never print out regardless of the value for x? if x < 2 : print("below 2"); elif x < 20 : print("below 20"); elif x < 10 : print("below 10"); else : print("Something else");

Select one:

- a. below 10
- b. below 2
- c. below 20
- ⦿ d. Something else ✘

The correct answer is: below 10

Correct

Mark 1.00 out of 1.00

⚑ Flag question

How are Python dictionaries different from Python lists?

Select one:

- ○ a. Python dictionaries are a collection and lists are not a collection
- ◉ b. Python lists maintain order and dictionaries do not maintain order ✔
- ○ c. Python lists can store strings and dictionaries can only store words
- ○ d. Python lists store multiple values and dictionaries store a single value

The correct answer is: Python lists maintain order and dictionaries do not maintain order

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which of the following regular expressions would extract 'uct.ac.za' from this string using re.findall? From stephen.marquard@uct.ac.za Sat Jan 5 09:14:16 2008

Select one:

- ○ a. @\S+
- ○ b. F.+:
- ◉ c. @(\S+) ✔
- ○ d. ..@\S+..

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What is the purpose of the newline character in text files?

Select one:

○ a. It adds a new network connection to retrieve files from the network

◉ b. It indicates the end of one line of text and the beginning of another line of text ✔

○ c. It allows us to open more than one files and read them in a synchronized manner

○ d. It enables random movement throughout the file

The correct answer is: It indicates the end of one line of text and the beginning of another line of text

Incorrect

Mark 0.00 out of 1.00

⚑ Flag question

What will the '\$' regular expression match?

Select one:

○ a. The beginning of a line

○ b. an empty line

○ c. a dollar sign

◉ d. The end of a line ✖

The correct answer is: a dollar sign

What will the following Python program print out? total = 0; for abc in range(5) : total = total + abc; print(total);

Select one:

- ○ a. 6
- ○ b. 16
- ○ c. 4
- ◉ d. 10 ✔

The correct answer is: 10

Which method in a dictionary object gives you a list of the values in the dictionary?

Select one:

- ◉ a. values() ✔
- ○ b. items()
- ○ c. each()
- ○ d. all()

The correct answer is: values()

Given the following line of text: From stephen.marquard@uct.ac.za Sat Jan 5 09:14:16 2008; What would the regular expression '\S+?@\S+' match?

Select one:

- ⦿ a. stephen.marquard@uct.ac.za   ✔
- ○ b. From
- ○ c. \@\
- ○ d. marquard@uct

The correct answer is: stephen.marquard@uct.ac.za

If the variable data is a Python list, how do we sort it in reverse order?

Select one:

- ○ a. data = data.sort(-1)
- ○ b. data = sortrev(data)
- ○ c. data.sort.reverse()
- ⦿ d. data.sort(reverse=True)   ✔

The correct answer is: data.sort(reverse=True)

How are "collection" variables different from normal variables?

Select one:

- a.   collection variables pull multiple network documents together
- b.   collection variables can only store a single value
- ● c.   collection variables can store multiple values in a single variable   ✔
- d.   collection variables merge streams of output into a single stream

The correct answer is: collection variables can store multiple values in a single variable

What will the following Python code print out? data = 'From stephen.marquard@uct.ac.za Sat Jan 5 09:14:16 2008'; pos = data.find('.'); print(data[pos:pos+3]);

Select one:

- ● a.   .ma   ✔
- b.   09:14
- c.   uct
- d.   mar

The correct answer is: .ma

Question 105

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What is the type of the return value of the re.findall() method?

Select one:
- ⦿ a. a list of strings ✔
- ◯ b. a string
- ◯ c. an integer
- ◯ d. a single character

The correct answer is: a list of strings

Question 106

Incorrect

Mark 0.00 out of 1.00

⚑ Flag question

In the following Python code, which of the following is an "argument" to a function? x = 'banana'; y = max(x); print👍 ;

Select one:
- ◯ a. max
- ⦿ b. 'banana' ✖
- ◯ c. print
- ◯ d. x

The correct answer is: x

Which of the following is not a valid string method in Python?

Select one:

○ a. split()

○ b. startswith()

◉ c. twist() ✔

○ d. join()

The correct answer is: twist()

Which of the following tuples is greater than x in the following Python sequence? x = (5, 1, 3); if ??? > x : ...

Select one:

○ a. (5, 0, 300)

○ b. (0, 1000, 2000)

◉ c. (6, 0, 0) ✔

○ d. (4, 100, 200)

The correct answer is: (6, 0, 0)

What does the following Python code print out? a = [1, 2, 3]; b = [4, 5, 6]; c = a + b; print(len(c));

Select one:

- ⦿ a.   6   ✔
- ○ b.   15
- ○ c.   [4, 5, 6]
- ○ d.   [1, 2, 3]

The correct answer is: 6

What would the following Python code print out? abc = "With three words"; stuff = abc.split(); print(stuff);

Select one:

- ○ a.   ['With the', 'ee words']
- ○ b.   ['With three words']
- ⦿ c.   ['With', 'three', 'words']   ✔
- ○ d.   ['With', 'three words']

The correct answer is: ['With', 'three', 'words']

Question 111

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which of the following best describes "Regular Expressions"?

Select one:

- ○ a. a way to solve algebra formulas for the unknown value
- ◉ b. a small programming language unto itself ✔
- ○ c. The way Python handles and recovers from errors that would otherwise cause a traceback
- ○ d. a way to calculate mathematical values paying attention to operator precedence

The correct answer is: a small programming language unto itself

Question 112

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Which of the following slicing operations will produce the list [12, 3]? t = [9, 41, 12, 3, 74, 15];

Select one:

- ○ a. t[:]
- ○ b. t[2:2]
- ○ c. t[12:3]
- ◉ d. t[2:4] ✔

The correct answer is: t[2:4]

Which of the following variables is the "most mnemonic"?

Select one:

- a. x
- b. x1q3z9ocd
- ◉ c. hours ✔
- d. variable_173

The correct answer is: hours

In the following Python, what does the for loop iterate through? x = dict(); ...; for y in x : ...

Select one:

- a. It loops through the integers in the range from zero through the length of the dictionary
- ◉ b. It loops through the keys in the dictionary ✔
- c. It loops through the values in the dictionary
- d. It loops through all of the dictionaries in the program

The correct answer is: It loops through the keys in the dictionary

For the following list, how would you print out 'Sally'? friends = ['Joseph', 'Glenn', 'Sally'];

Select one:

- ○ a.   print(friends[2:1])
- ○ b.   print(friends['Sally'])
- ◉ c.   print(friends[2])   ✔
- ○ d.   print friends[3]

The correct answer is: print(friends[2])

The following Python code causes a traceback: (1) a = "123"; (2) b = 456; (3) c = a + b; (4) print(c); Which line fails with a traceback?

Select one:

- ○ a.   1
- ○ b.   2
- ◉ c.   3   ✔
- ○ d.   4

The correct answer is: 3

What is stored in a "file handle" that is returned from a successful open() call?

Select one:

○ a. all the data from the file is read into memory and stored in the handle

○ b. The handle has a list of all of the files in a particular folder on the hard drive

◉ c. The handle is a connection to the file's data ✔

○ d. The handle contains the first 10 lines of a file

The correct answer is: The handle is a connection to the file's data

What does the following Python code print out? print(len('banana')*7);

Select one:

○ a. banana banana banana banana banana banana banana

○ b. banana7

○ c. -1

◉ d. 42 ✔

The correct answer is: 42

Question 119

Incorrect

Mark 0.00 out of 1.00

⚑ Flag question

How many times will the body of the following loop be executed? n = 0; while n > 0 : print('Lather'); print('Rinse'); print('dry off!');

Select one:

○ a. 5

◉ b. 0 ✖

○ c. 1

○ d. This is an infinite loop

The correct answer is: 5

Question 120

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What does this Python statement do if Partyanimal is a class? zap = Partyanimal()

Select one:

○ a. copy the value from the Partyanimal variable to the variable zap

◉ b. Use the Partyanimal template to make a new object and assign it to zap ✔

○ c. Subtract the value of the zap variable from the value in the Partyanimal variable and put the difference in zap

○ d. clear out all the data in the Partyanimal variable and put the old values for the data in zap

The correct answer is: Use the Partyanimal template to make a new object and assign it to zap

Which of the following lines will never print out regardless of the value of "x"? if x < 2 : print("below 2"); elif x < 0 : print("Negative"); else : print("Something else");

Select one:

- ○ a.   Something else
- ⦿ b.   Negative ✔
- ○ c.   all the lines will print out
- ○ d.   below 2

The correct answer is: Negative

Which of the following is not a Python reserved word?

Select one:

- ○ a.   for
- ○ b.   continue
- ⦿ c.   spam ✔
- ○ d.   break

The correct answer is: spam

Question 123

Correct

Mark 1.00 out of 1.00

What does the following Python code accomplish, assuming the c is a non-empty dictionary? tmp = list(); for k, v in c.items() :
tmp.append((v, k));

Select one:

○ a.   It sorts the dictionary based on its key values

○ b.   It computes the largest of all of the values in the dictionary

○ c.   It computes the average of all of the values in the dictionary

◉ d.   It creates a list of tuples where each tuple is a value, key pair   ✔

The correct answer is: It creates a list of tuples where each tuple is a value, key pair

---

Question 124

Correct

Mark 1.00 out of 1.00

What does the following Python program print out? x = '40'; y = int(x) + 2; print👍 ;

Select one:

○ a.   402

◉ b.   42   ✔

○ c.   int402

○ d.   x2

The correct answer is: 42

Question 125

Correct

Mark 1.00 out of 1.00

⚑ Flag question

In the following Python code, what will end up in the variable y? x = { 'chuck' : 1 , 'fred' : 42, 'jan': 100}; y = x.items();

Select one:

- ○ a. a tuple with three integers
- ◉ b. a list of tuples ✔
- ○ c. a list of strings
- ○ d. a list of integers

The correct answer is: a list of tuples

Question 126

Correct

Mark 1.00 out of 1.00

⚑ Flag question

When Python is running in the interactive mode and displaying the chevron prompt (>>>) - what question is Python asking you?

Select one:

- ○ a. What is your favourite color?
- ◉ b. What Python statement would you like me to run? ✔
- ○ c. What is the next machine language instruction to run?
- ○ d. What Python script would you like me to run?

The correct answer is: What Python statement would you like me to run?

What is wrong with this Python loop: n = 5; while n > 0 : print👎 ; print('all done');

Select one:

- ○ a.   while is not a Python reserved word
- ◉ b.   This loop will run forever ✔
- ○ c.   The print('all done') statement should be indented four spaces
- ○ d.   There should be no colon on the while statement

The correct answer is: This loop will run forever

at the moment of creation of a new object, Python looks at the _____ definition to define the structure and capabilities of the newly created object.

Select one:

- ◉ a.   class ✔
- ○ b.   method
- ○ c.   constructor
- ○ d.   cache

The correct answer is: class

assume the variable x has been initialized to an integer value (e.g., x = 3). What does the following statement do? x = x + 2

Select one:

- ⊙ a. Retrieve the current value for x, add two to it and put the sum back into x ✔
- ○ b. Produce the value "false" because "x" can never equal "x+2"
- ○ c. This would fail as it is a syntax error
- ○ d. create a function called "x" and put the value 2 in the function

The correct answer is: Retrieve the current value for x, add two to it and put the sum back into x

What is the Python reserved word that we use in two-way if tests to indicate the block of code that is to be executed if the logical test is false?

Select one:

- ⊙ a. else ✔
- ○ b. iterate
- ○ c. otherwise
- ○ d. a closing curly brace followed by an open curly brace like this }{

The correct answer is: else

Question 131

Correct

Mark 1.00 out of 1.00

⚐ Flag question

What is a good description of the following bit of Python code? zork = 0; for thing in [9, 41, 12, 3, 74, 15] : zork = zork + thing; print('after', zork);

Select one:

○ a.   Find the smallest item in a list

◉ b.   Sum all the elements of a list   ✔

○ c.   count all of the elements in a list

○ d.   compute the average of the elements in a list

The correct answer is: Sum all the elements of a list

Question 132

Correct

Mark 1.00 out of 1.00

⚐ Flag question

What are the Python keywords used to construct a loop to iterate through a list?

Select one:

○ a.   try / except

◉ b.   for / in   ✔

○ c.   foreach / in

○ d.   def / return

The correct answer is: for / in

When you have multiple lines in an if block, how do you indicate the end of the if block?

Select one:

○ a. You use a curly brace { after the last line of the if block

○ b. You put the colon : character on a line by itself to indicate we are done with the if block

○ c. You omit the semicolon ; on the last line of the if block

◉ d. You de-indent the next line past the if block to the same level of indent as the original if statement ✔

The correct answer is: You de-indent the next line past the if block to the same level of indent as the original if statement

What would the following Python code print out? stuff = dict(); print(stuff.get('candy',-1));

Select one:

○ a. The program would fail with a traceback

◉ b. -1 ✔

○ c. 0

○ d. 'candy'

The correct answer is: -1

Question 135

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What is the value of the following expression: 42 % 10 (Hint - the "%" is the remainder operator)

Select one:

○ a.   0.42

⦿ b.   2   ✔

○ c.   10

○ d.   4210

The correct answer is: 2

Question 136

Correct

Mark 1.00 out of 1.00

⚑ Flag question

What does the following Python Program print out? str1 = "Hello"; str2 = 'there'; bob = str1 + str2; print(bob);

Select one:

○ a.   Hello there

○ b.   Hello there

○ c.   Hello

⦿ d.   Hellothere   ✔

The correct answer is: Hellothere

Which of the following string methods removes whitespace from both the beginning and end of a string?

Select one:

- a. rltrim()
- b. strtrunc()
- ⦿ c. strip() ✔
- d. wsrem()

The correct answer is: strip()