Fundamentals of Python First Programs 2nd edition Lambert Test Bank

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TRUE/FALSE

1 : Computer scientists refer to the process of planning and organizing a program as software development.
A : true
B : false

Correct Answer : A

2 : The design phase of the waterfall model is also called the coding phase.
A : true
B : false

Correct Answer : B

3 : In the maintenance phase of the waterfall model, the parts of a program are brought together into a smoothly functioning whole, usually not an easy task.
A : true
B : false

Correct Answer : B

4 : Modern software development is usually incremental and iterative.
A : true
B : false

Correct Answer : A

5 : Programs rarely work as hoped the first time they are run.
A : true
B : false

Correct Answer : A

6 : The cost of developing software is spread equally over the phases.
A : true
B : false

Correct Answer : B

7 : Python is a loosely typed programming language.
A : true
B : false

Correct Answer : B

8 : Testing is a deliberate process that requires some planning and discipline on the programmer's part.
A : true
B : false

Correct Answer : A

9 : Text processing is by far the least common application of computing.
A : true
B : false

Correct Answer : B

10 : When the Python interpreter evaluates a literal, the value it returns is simply that literal.
A : true
B : false

Correct Answer : A

11 : string is an example of a data type in Python.
A : true
B : false

Correct Answer : B

12 : In Python, is a escape sequence that represents a horizontal tab.
A : true
B : false

Correct Answer : B

13 : The + operator allows you to build a string by repeating another string a given number of times.
A : true
B : false

Correct Answer : B

14 : A variable associates a name with a value, making it easy to remember and use the value later in a program.
A : true
B : false

Correct Answer : A

15 : In general, a variable name must begin with either a letter or an underscore (_).
A : true
B : false

Correct Answer : A

16 : Variables receive their initial values and can be reset to new values with an assignment statement.
A : true
B : false

Correct Answer : A

17 : 1,500 is a valid integer literal in Python.

A : true
B : false

Correct Answer : B

18 : Real numbers have infinite precision, which means that the digits in the fractional part can continue forever.
A : true
B : false

Correct Answer : A

19 : In Python, a floating-point number must be written using scientific notation.
A : true
B : false

Correct Answer : B

20 : Expressions provide an easy way to perform operations on data values to produce other data values.
A : true
B : false

Correct Answer : A

21 : In Python, % is the exponentiation operator.
A : true
B : false

Correct Answer : B

22 : The modulus operator has the highest precedence and is evaluated first.
A : true
B : false

Correct Answer : B

23 : You can use parentheses to change the order of evaluation in an arithmetic expression.
A : true
B : false

Correct Answer : A

24 : Exponentiation and assignment operations are left associative.
A : true
B : false

Correct Answer : B

25 : A semantic error is detected when the action that an expression describes cannot be carried out, even though that expression is syntactically correct.
A : true
B : false

Correct Answer : A

MULTIPLE CHOICE

26 : In the waterfall development model, what is the most expensive part of software development?
A : The design phase.
B : The integration phase.
C : The maintenance phase.
D : The analysis phase.

Correct Answer : C

27 : When attempting to produce a correct program, what is the point of developing a test suite?
A : To provide a small set of inputs as a test to verify that a program will be correct for all inputs.
B : To modify the running programs variables and verify that the program will still function, even if the code changes.
C : To test the outputs of a program against known values to verify that the math coprocessor is performing properly.
D : To test the code syntax for possible errors such as undefined variables.

Correct Answer : A

28 : Which of the following literals would be considered a float type in Python?
A : -1
B : 3.14
C : 88
D : 5

Correct Answer : B

29 : What print statement will output a single " character?
A : print()
B : print(\)
C : print("")
D : print(\)

Correct Answer : B

30 : What special character does the ' ' escape sequence generate?
A : It generates a border special character.
B : It generates a bold special character, causing all text after the character to be bolded.
C : It denotes a block of text follows the escape sequence.
D : It produces a backspace special character, which performs the same function as the backspace key.

Correct Answer : D

31 : Which of the following is NOT a valid name that can be used for a variable?
A : total
B : 1ending

C : propertyValue
D : TEST

Correct Answer : B

32 : What is the largest value of an int data type in the Python programming language?
A : 2,147,483,647
B : 4,294,967,294
C : 2,147,483,647^100
D : The value is limited only by the memory of the host computer.

Correct Answer : D

33 : In Python, what data type is used to represent real numbers between -10^308 and 10^308 with 16 digits of precision?
A : int
B : float
C : string
D : array

Correct Answer : B

34 : Which of the following functions and expressions will convert the ASCII character "Z" to its numeric equivalent ASCII code?
A : ord(Z)
B : chr(Z)
C : ord(chr(Z))
D : chr(ord(Z))

Correct Answer : A

35 : What effect does the following print statement have? print("Hello" * 5)
A : The string "Hello" is converted into an int type of value 1 and then multiplied by 5, producing "5".
B : The string is indexed and the character count is multiplied with the total number of characters in the string, producing "25".
C : The print statement produces a type error as you cannot multiply a string type with an integer type.
D : The print statement will produce "HelloHelloHelloHelloHello".

Correct Answer : D

36 : What statement accurately describes what a semantic error is?
A : A semantic error is the result of an expression that is syntactically incorrect.
B : A semantic error occurs when an expression is syntactically correct, but the expression cannot be carried out.
C : A semantic error happens when an expression attempts to perform operations between incompatible data types.
D : A semantic error is the result of an improperly nested if statement.

Correct Answer : B

37 : What statement accurately reflects the difference between the quotient operator and the division operator?
A : The two operators are effectively the same, unless being carried out on strings.

B : The quotient operator produces a float, while the division operator produces an integer.
C : The quotient operator produces a float, while the division operator produces an integer + remainder.
D : The quotient operator produces an integer, while the division operator produces a float.

Correct Answer : D

38 : What must be done in order to concatenate a string and a float object?
A : Nothing can be done, as the two data types cannot be converted to a compatible type.
B : The string object must be converted to a float object via the float() function.
C : The float object must be converted to an integer object via the int() function.
D : The float object must be converted to a string object via the str() function.

Correct Answer : D

39 : What function can you call inside of IDLE to show the resources of the math module, once it has been imported?
A : show(math)
B : list(math)
C : dir(math)
D : resource(math)

Correct Answer : C

40 : In evaluating the precedence rules used by Python, what statement is accurate?
A : Exponentiation has the highest precedence.
B : Multiplication is evaluated before unary multiplication.
C : Addition and subtraction are evaluated after assignment.
D : Exponentiation and assignment operations are left associative.

Correct Answer : A

41 : In Python, what does the "%" operator do in the expression 6 % 4?
A : It performs an exponentiation to the 4th power.
B : It returns a remainder or modulus.
C : It returns a float as a result of division.
D : It returns the percentage of the operation.

Correct Answer : B

42 : How does the int function convert a float to an int?
A : By rounding to the nearest whole number.
B : By removing the fractional value of the number.
C : By rounding up to the closest whole number.
D : By rounding down to the closest whole number.

Correct Answer : B

43 : You are working on a Python script that relies heavily on the cos and sin functions of the math module. As these are the only functions you require, what should you do to import only these functions, rather than the whole math module?
A : import cos, sin
B : import cos, sin from math
C : import math.cos, math.sin

D : from math import cos, sin

Correct Answer : D

44 : Functions that are always available in Python come from what module?
A : main
B : internal
C : __builtin__
D : __system__

Correct Answer : C

45 : What term describes the process of substituting a simple process for a complex process in a program to make the program easier to understand and maintain?
A : refactoring
B : abstraction
C : inferring
D : subletting

Correct Answer : B

46 : What is the total number of distinct values in the ASCII set?
A : 64
B : 128
C : 256
D : 512

Correct Answer : C

47 : What will be the return value of running the following function? chr(ord('T') + 5)?
A : 78
B :
C : 0x89
D : "Y"

Correct Answer : D

48 : What statement accurately describes the analysis phase of the waterfall model?
A : In this phase, the programmers determine what the program will do.
B : In this phase, the programmers determine how the program will do its task.
C : In this phase, the programmers receive a broad statement of a problem that may be solved by the development of a program.
D : In this phase, the programmers bring together the various parts of a program into a smoothly functioning whole.

Correct Answer : A

49 : You are reviewing the code written by another programmer, and encounter a variable whose name is entirely in capital letters. What might you discern from this variable name?
A : The variable is a symbolic constant.
B : The variable is a reference variable.
C : The variable is part of a program loop.
D : The variable is used to store a dynamic value that is constantly changing.

Correct Answer : A

MULTIPLE ANSWER

50 : What are the two different means by which a floating-point number can be written? (Choose two.)
A : decimal notation
B : line notation
C : scientific notation
D : octal notation

Correct Answer : D