**SELF\_QUIZ UNIT 1**

Match concepts with their definition!

|  |  |
| --- | --- |
| A general process for solving a category of problems. | Answer 1 |
| An error in a program. | Answer 2 |
| An intermediate language between source code and object code. | Answer 3 |
| To translate a program written in a high-level language into a low-level language all at once, in preparation for later execution. | Answer 4 |
| The process of finding and removing any of the three kinds of programming errors. | Answer 5 |
| Another name for a runtime error. | Answer 6 |
| Another name for object code that is ready to be executed. | Answer 7 |
| Any one of the languages that people have designed for specific purposes, such as representing mathematical ideas or computer programs; all programming languages are this kind of languages. | Answer 8 |
| A programming language like Python that is designed to be easy for humans to read and write. | Answer 9 |
| To execute a program in a high-level language by translating it one line at a time. | Answer 10 |
| A programming language that is designed to be easy for a computer to execute; also called machine language or assembly language. | Answer 11 |
| Any one of the languages that people speak that evolved naturally. | Answer 12 |
| The output of the compiler after it translates the program. | Answer 13 |
| To examine a program and analyse the syntactic structure. | Answer 14 |
| A property of a program that can run on more than one kind of computer. | Answer 15 |
| An instruction that causes the Python interpreter to display a value on the screen. | Answer 16 |
| The process of formulating a problem, finding a solution, and expressing the solution. | Answer 17 |
| a sequence of instructions that specifies to a computer actions and computations to be performed. | Answer 18 |
| An interactive user interface to the Python interpreter. | Answer 19 |
| An error that does not occur until the program has started to execute but that prevents the program from continuing. | Answer 20 |
| A program stored in a file (usually one that will be interpreted). | Answer 21 |
| An error in a program that makes it do something other than what the programmer intended. | Answer 22 |
| The meaning of a program. | Answer 23 |
| A program in a high-level language before being compiled. | Answer 24 |
| The structure of a program. | Answer 25 |
| An error in a program that makes it impossible to parse — and therefore impossible to interpret. | Answer 26 |
| One of the basic elements of the syntactic structure of a program, analogous to a word in a natural language. | Answer 27 |

Feedback

The correct answer is: A general process for solving a category of problems. → algorithm, An error in a program. → bug, An intermediate language between source code and object code. → byte code, To translate a program written in a high-level language into a low-level language all at once, in preparation for later execution. → compile, The process of finding and removing any of the three kinds of programming errors. → debugging, Another name for a runtime error. → exception, Another name for object code that is ready to be executed. → executable, Any one of the languages that people have designed for specific purposes, such as representing mathematical ideas or computer programs; all programming languages are this kind of languages. → formal language, A programming language like Python that is designed to be easy for humans to read and write. → high-level language, To execute a program in a high-level language by translating it one line at a time. → interpret, A programming language that is designed to be easy for a computer to execute; also called machine language or assembly language. → low-level language, Any one of the languages that people speak that evolved naturally. → natural language, The output of the compiler after it translates the program. → object code, To examine a program and analyse the syntactic structure. → parse, A property of a program that can run on more than one kind of computer. → portability, An instruction that causes the Python interpreter to display a value on the screen. → print statement, The process of formulating a problem, finding a solution, and expressing the solution. → problem solving, a sequence of instructions that specifies to a computer actions and computations to be performed. → program, An interactive user interface to the Python interpreter. → Python shell, An error that does not occur until the program has started to execute but that prevents the program from continuing. → runtime error, A program stored in a file (usually one that will be interpreted). → script, An error in a program that makes it do something other than what the programmer intended. → semantic error, The meaning of a program. → semantics, A program in a high-level language before being compiled. → source code, The structure of a program. → syntax, An error in a program that makes it impossible to parse — and therefore impossible to interpret. → syntax error, One of the basic elements of the syntactic structure of a program, analogous to a word in a natural language. → token

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following is NOT one of the computer languages developed in the 1950’s

Select one:

a. COBOL

b. Fortran

c. BASIC (Beginners All Purpose Symbolic Instruction Code)

d. LISP

Feedback

The correct answer is: BASIC (Beginners All Purpose Symbolic Instruction Code)

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The BASIC language was developed by John G. Kemeny at which school:

Select one:

a. Harvard University

b. Stanford University

c. Dartmouth College

d. Carnegie Mellon University

Feedback

The correct answer is: Dartmouth College

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

A popular computer language developed by Dennis Ritchie and Ken Thompson at Bell Labs in the 70's is:

Select one:

a. APL

b. Basic

c. C

d. PL/1

Feedback

The correct answer is: C

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The concept of a computer ‘bug’ was first attributed to \_\_\_\_\_\_ who found a moth stuck in a relay that caused a failure in a computer at Harvard University. The term ‘debugging’ has since come to mean correcting errors in a computer or computer program.

Select one:

a. Grace Murray Hopper

b. John von Neumann

c. Charles Babbage

d. Konrad Zuse

Feedback

The correct answer is: Grace Murray Hopper

Question **6**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Fortran language was designed to process business transactions

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **7**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The COBOL language was designed to solve business problems and was adapted to processing business transactions

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **8**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The C language was developed at Bell Labs with the objective of being the first object oriented language

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **9**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Perl, Python, and PHP are all compiled languages

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **10**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

A program is a sequence of instructions that specifies how to perform a computation.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **11**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The three kinds or errors that can occur in a program are\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Select one:

a. algorithms, debugging, iterations

b. syntax, runtime, semantic

c. looping, spelling, conditional

d. scripting, command line, interpreter

Feedback

The correct answer is: syntax, runtime, semantic

Question **12**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Portability means the program is written in small chunks of code.

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **13**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

During the 1990's, a major influence on programming languages was\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Select one:

a. consolidation, modules performance

b. the Internet

c. fundamental paradigms

d. formula translation

Feedback

The correct answer is: the Internet

Question **14**

Incorrect

Mark 0.00 out of 1.00

Flag question

Question text

Python is considered to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Select one:

a. a database language

b. a formula translation language

c. an Internet language

d. a business oriented language

Feedback

The correct answer is: an Internet language

Question **15**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following is NOT a programming language.

Select one:

a. Java

b. C

c. Kuntz

d. Ruby

Feedback

The correct answer is: Kuntz

**SELF\_QUIZ UNIT 2**

What output will the following python command produce:  
  
>>> print (1,000,000)

Select one:

a. 1,000

b. 1,000,000

c. 1 0 0

d. Error invalid type

Feedback

The correct answer is: 1 0 0

Question **2**

Not answered

Marked out of 1.00

Flag question

Question text

What output will the following python commands produce:  
  
>>> n = 17  
>>> print (n)

Select one:

a. (n)

b. 17.0

c. n

d. 17

Feedback

The correct answer is: 17

Question **3**

Not answered

Marked out of 1.00

Flag question

Question text

What output will the following python command produce:  
  
>>> percentage = ( 60 \* 100) // 55  
>>> print (percentage)

Select one:

a. percentage

b. 109

c. 109.0909090909091

d. 109.0

Feedback

The correct answer is: 109

Question **4**

Not answered

Marked out of 1.00

Flag question

Question text

What output will the following python commands produce:  
  
>>> print (2 \* (3-1))

Select one:

a. 6

b. 5

c. 4

d. 3

Feedback

The correct answer is: 4

Question **5**

Not answered

Marked out of 1.00

Flag question

Question text

What output will the following python commands produce:  
  
>>> print ((1+1)\*\*(5-2))

Select one:

a. 16

b. 8

c. 4

d. 2

Feedback

The correct answer is: 8

Question **6**

Not answered

Marked out of 1.00

Flag question

Question text

What output will the following python commands produce:  
  
>>> print (2\*3-1)

Select one:

a. 6

b. 5

c. 4

d. 3

Feedback

The correct answer is: 5

Question **7**

Not answered

Marked out of 1.00

Flag question

Question text

Match concepts with their definition!

|  |  |
| --- | --- |
| A statement that assigns a value to a name (variable). | Answer 1 |
| Information in a program that is meant for other programmers (or anyone reading the source code) and has no effect on the execution of the program. | Answer 2 |
| The ability to combine simple expressions and statements into compound statements and expressions in order to represent complex computations concisely. | Answer 3 |
| To join two strings end-to-end. | Answer 4 |
| A set of values. | Answer 5 |
| To simplify an expression by performing the operations in order to yield a single value. | Answer 6 |
| A combination of variables, operators, and values that represents a single result value. | Answer 7 |
| A Python data type which stores floating-point numbers. | Answer 8 |
| A Python data type that holds positive and negative whole numbers. | Answer 9 |
| An operation that divides one integer by another and yields an integer. | Answer 10 |
| A reserved word that is used by the compiler to parse programs. | Answer 11 |
| One of the values on which an operator operates. | Answer 12 |
| A special symbol that represents a simple computation like addition, multiplication, or string concatenation. | Answer 13 |
| The set of rules governing the order in which expressions involving multiple operators and operands are evaluated. | Answer 14 |
| An instruction that the Python interpreter can execute. | Answer 15 |
| A Python data type that holds a string of characters. | Answer 16 |
| A number or string (or other things to be named later) that can be stored in a variable or computed in an expression. | Answer 17 |
| A name that refers to a value. | Answer 18 |
| A name given to a variable. | Answer 19 |

Feedback

The correct answer is: A statement that assigns a value to a name (variable). → assignment statement, Information in a program that is meant for other programmers (or anyone reading the source code) and has no effect on the execution of the program. → comment, The ability to combine simple expressions and statements into compound statements and expressions in order to represent complex computations concisely. → composition, To join two strings end-to-end. → concatenate, A set of values. → data type, To simplify an expression by performing the operations in order to yield a single value. → evaluate, A combination of variables, operators, and values that represents a single result value. → expression, A Python data type which stores floating-point numbers. → float, A Python data type that holds positive and negative whole numbers. → int, An operation that divides one integer by another and yields an integer. → integer division, A reserved word that is used by the compiler to parse programs. → keyword, One of the values on which an operator operates. → operand, A special symbol that represents a simple computation like addition, multiplication, or string concatenation. → operator, The set of rules governing the order in which expressions involving multiple operators and operands are evaluated. → rules of precedence, An instruction that the Python interpreter can execute. → statement, A Python data type that holds a string of characters. → str, A number or string (or other things to be named later) that can be stored in a variable or computed in an expression. → value, A name that refers to a value. → variable, A name given to a variable. → variable name

Question **8**

Not answered

Marked out of 1.00

Flag question

Question text

Programmers generally choose names for their variables that are meaningful and document what the variable is used for.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **9**

Not answered

Marked out of 1.00

Flag question

Question text

Variable names are not case sensitive.

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **10**

Not answered

Marked out of 1.00

Flag question

Question text

Using keywords for variable names will result in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Select one:

a. runtime error

b. compile error

c. syntax error

d. semantic error

Feedback

The correct answer is: syntax error

Question **11**

Not answered

Marked out of 1.00

Flag question

Question text

A script usually contains a sequence of statements. If there is more than one statement, the results appear one at a time as the statements execute.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **12**

Not answered

Marked out of 1.00

Flag question

Question text

An expression is a combination of values, variables, and operators. If you type an expression on the command line, the interpreter evaluates it and displays the result.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **13**

Not answered

Marked out of 1.00

Flag question

Question text

In a script, an expression all by itself is a legal statement, but it doesn't do anything.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **14**

Not answered

Marked out of 1.00

Flag question

Question text

The acronym PEMDAS is a useful way to remember the order of operations in Python.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **15**

Not answered

Marked out of 1.00

Flag question

Question text

As programs get bigger and more complicated, they get more difficult to read. This is why programmers should use Comments in their code.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **16**

Not answered

Marked out of 1.00

Flag question

Question text

What output will the following python command produce:

percentage = ( 60.0 \* 100.0 ) / 55.0  
print (percentage)

Select one:

a. percentage

b. 109

c. 109.0909090909091

d. 109.0

Feedback

The correct answer is: 109.0909090909091

**SELF\_QUIZ UNIT 3**

What does the following symbol mean when used in a flowchart?

Select one:

a. Decision

b. Start/End

c. Input/Output

d. Sub-routine process

Feedback

The correct answer is: Start/End

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Decision

b. Input/output

c. Process

d. Start/End of Process

Feedback

The correct answer is: Decision

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Input/output

b. Decision

c. Start/End of process

d. Sub-routine process

Feedback

The correct answer is: Input/output

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Sub-routine process

b. Decision

c. Input/Output

d. Process

Feedback

The correct answer is: Process

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Start/End of process

b. Input/output

c. Sub-routine process

d. Decision

Feedback

The correct answer is: Sub-routine process

Question **6**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following is NOT one of the rules for pseudo code:

Select one:

a. Indent to show hierarchy

b. Keep statements language independent

c. Write only one statement per line

d. Capitalize every word

Feedback

The correct answer is: Capitalize every word

Question **7**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

An advantage of Pseudo code is that it is a visual technique.

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **8**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

An advantage of Pseudo code is that it requires no special tools and can easily be written on a word processor.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **9**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Pseudo code is a newer tool and has features that make it more reflective of the structured concepts.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **10**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Every flowchart must have a START and STOP symbol.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **11**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The use of arrows in flowcharts is optional because the flow direction is obvious.

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **12**

Incorrect

Mark 0.00 out of 1.00

Flag question

Question text

A flowchart with more than 15 symbols is considered poor form.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **13**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Pseudo code should contain the exact same statements as the programming language that will be used.

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **14**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

One of the advantages of flowcharts is that it is hard to modify.

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **15**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

One of the advantages of pseudo code is that it implements structured concepts well.

Select one:

True

False

Feedback

The correct answer is 'True'.

**GRADED\_QUIZ UNIT 3**

What does the following symbol mean when used in a flowchart?

Select one:

a. Start/End of process

b. Input/output

c. Sub-routine process

d. Decision

Feedback

The correct answer is: Sub-routine process

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

A flowchart with more than 15 symbols is considered poor form.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Variable names are not case sensitive.

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

An advantage of Pseudo code is that it is a visual technique.

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Fortran language was designed to process business transactions

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **6**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Using keywords for variable names will result in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Select one:

a. runtime error

b. compile error

c. syntax error

d. semantic error

Feedback

The correct answer is: syntax error

Question **7**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What output will the following python commands produce:  
  
>>> n = 17  
>>> print (n)

Select one:

a.

b. 17.0

c. n

d. 17

Feedback

The correct answer is: 17

Question **8**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Sub-routine process

b. Decision

c. Input/Output

d. Process

Feedback

The correct answer is: Process

Question **9**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

A popular computer language developed by Dennis Ritchie and Ken Thompson at Bell Labs in the 70's is:

Select one:

a. APL

b. Basic

c. C

d. PL/1

Feedback

The correct answer is: C

Question **10**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The C language was developed at Bell Labs with the objective of being the first object oriented language

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **11**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Programmers generally choose names for their variables that are meaningful and document what the variable is used for.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **12**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

An advantage of Pseudo code is that it requires no special tools and can easily be written on a word processor.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **13**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What output will the following python command produce:  
  
>>> percentage = ( 60 \* 100) / 55  
>>> print (percentage)

Select one:

a. percentage

b. 109

c. 109.0909090909091

d. 109.0

Feedback

The correct answers are: 109, 109.0909090909091

Question **14**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Input/output

b. Decision

c. Start/End of process

d. Sub-routine process

Feedback

The correct answer is: Input/output

Question **15**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What output will the following python commands produce:  
  
>>> print (2\*3-1)

Select one:

a. 6

b. 5

c. 4

d. 3

Feedback

The correct answer is: 5

Question **16**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The concept of a computer bug was first attributed to \_\_\_\_\_\_ who found a moth stuck in a relay that caused a failure in a computer at Harvard University. The term debugging has since come to mean correcting errors in a computer or computer program.

Select one:

a. Grace Murray Hopper

b. John von Neumann

c. Charles Babbage

d. Konrad Zuse

Feedback

The correct answer is: Grace Murray Hopper

Question **17**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What output will the following python command produce:  
  
>>> print (1,000,000)

Select one:

a.

b. 1,000,000

c. 1 0 0

d. Error invalid type

Feedback

The correct answer is: 1 0 0

Question **18**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Pseudo code is a newer tool and has features that make it more reflective of the structured concepts.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **19**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Perl, Python, and PHP are all compiled languages

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **20**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The BASIC language was developed by John G. Kemeny at which school:

Select one:

a. Harvard University

b. Stanford University

c. Dartmouth College

d. Carnegie Mellon University

Feedback

The correct answer is: Dartmouth College

Question **21**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Every flowchart must have a START and STOP symbol.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **22**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The use of arrows in flowcharts is optional because the flow direction is obvious.

Select one:

True

False

Feedback

The correct answer is 'False'.

Question **23**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The COBOL language was designed to solve business problems and was adapted to processing business transactions

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **24**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following is NOT one of the computer languages developed in the 1950s

Select one:

a. COBOL

b. Fortran

c. BASIC (Beginners All Purpose Symbolic Instruction Code)

d. LISP

Feedback

The correct answer is: BASIC (Beginners All Purpose Symbolic Instruction Code)

Question **25**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Which of the following is NOT one of the rules for pseudo code:

Select one:

a. Indent to show hierarchy

b. Keep statements language independent

c. Write only one statement per line

d. Capitalize every word

Feedback

The correct answer is: Capitalize every word

Question **26**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What output will the following python commands produce:  
  
>>> print (2 \* (3-1))

Select one:

a. 6

b. 5

c. 4

d. 3

Feedback

The correct answer is: 4

Question **27**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Match concepts with their definition!

|  |  |
| --- | --- |
| A general process for solving a category of problems. | Answer 1 |
| An error in a program. | Answer 2 |
| An intermediate language between source code and object code. | Answer 3 |
| To translate a program written in a high-level language into a low-level language all at once, in preparation for later execution. | Answer 4 |
| The process of finding and removing any of the three kinds of programming errors. | Answer 5 |
| Another name for a runtime error. | Answer 6 |
| Another name for object code that is ready to be executed. | Answer 7 |
| Any one of the languages that people have designed for specific purposes, such as representing mathematical ideas or computer programs; all programming languages are this kind of languages. | Answer 8 |
| A programming language like Python that is designed to be easy for humans to read and write. | Answer 9 |
| To execute a program in a high-level language by translating it one line at a time. | Answer 10 |
| A programming language that is designed to be easy for a computer to execute; also called machine language or assembly language. | Answer 11 |
| Any one of the languages that people speak that evolved naturally. | Answer 12 |
| The output of the compiler after it translates the program. | Answer 13 |
| To examine a program and analyse the syntactic structure. | Answer 14 |
| A property of a program that can run on more than one kind of computer. | Answer 15 |
| An instruction that causes the Python interpreter to display a value on the screen. | Answer 16 |
| The process of formulating a problem, finding a solution, and expressing the solution. | Answer 17 |
| a sequence of instructions that specifies to a computer actions and computations to be performed. | Answer 18 |
| An interactive user interface to the Python interpreter. | Answer 19 |
| An error that does not occur until the program has started to execute but that prevents the program from continuing. | Answer 20 |
| A program stored in a file (usually one that will be interpreted). | Answer 21 |
| An error in a program that makes it do something other than what the programmer intended. | Answer 22 |
| The meaning of a program. | Answer 23 |
| A program in a high-level language before being compiled. | Answer 24 |
| The structure of a program. | Answer 25 |
| An error in a program that makes it impossible to parse — and therefore impossible to interpret. | Answer 26 |
| One of the basic elements of the syntactic structure of a program, analogous to a word in a natural language. | Answer 27 |

Feedback

The correct answer is: A general process for solving a category of problems. → algorithm, An error in a program. → bug, An intermediate language between source code and object code. → byte code, To translate a program written in a high-level language into a low-level language all at once, in preparation for later execution. → compile, The process of finding and removing any of the three kinds of programming errors. → debugging, Another name for a runtime error. → exception, Another name for object code that is ready to be executed. → executable, Any one of the languages that people have designed for specific purposes, such as representing mathematical ideas or computer programs; all programming languages are this kind of languages. → formal language, A programming language like Python that is designed to be easy for humans to read and write. → high-level language, To execute a program in a high-level language by translating it one line at a time. → interpret, A programming language that is designed to be easy for a computer to execute; also called machine language or assembly language. → low-level language, Any one of the languages that people speak that evolved naturally. → natural language, The output of the compiler after it translates the program. → object code, To examine a program and analyse the syntactic structure. → parse, A property of a program that can run on more than one kind of computer. → portability, An instruction that causes the Python interpreter to display a value on the screen. → print statement, The process of formulating a problem, finding a solution, and expressing the solution. → problem solving, a sequence of instructions that specifies to a computer actions and computations to be performed. → program, An interactive user interface to the Python interpreter. → Python shell, An error that does not occur until the program has started to execute but that prevents the program from continuing. → runtime error, A program stored in a file (usually one that will be interpreted). → script, An error in a program that makes it do something other than what the programmer intended. → semantic error, The meaning of a program. → semantics, A program in a high-level language before being compiled. → source code, The structure of a program. → syntax, An error in a program that makes it impossible to parse — and therefore impossible to interpret. → syntax error, One of the basic elements of the syntactic structure of a program, analogous to a word in a natural language. → token

Question **28**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Match concepts with their definition!

|  |  |
| --- | --- |
| A statement that assigns a value to a name (variable). | Answer 1 |
| Information in a program that is meant for other programmers (or anyone reading the source code) and has no effect on the execution of the program. | Answer 2 |
| The ability to combine simple expressions and statements into compound statements and expressions in order to represent complex computations concisely. | Answer 3 |
| To join two strings end-to-end. | Answer 4 |
| A set of values. | Answer 5 |
| To simplify an expression by performing the operations in order to yield a single value. | Answer 6 |
| A combination of variables, operators, and values that represents a single result value. | Answer 7 |
| A Python data type which stores floating-point numbers. | Answer 8 |
| A Python data type that holds positive and negative whole numbers. | Answer 9 |
| An operation that divides one integer by another and yields an integer. | Answer 10 |
| A reserved word that is used by the compiler to parse programs. | Answer 11 |
| One of the values on which an operator operates. | Answer 12 |
| A special symbol that represents a simple computation like addition, multiplication, or string concatenation. | Answer 13 |
| The set of rules governing the order in which expressions involving multiple operators and operands are evaluated. | Answer 14 |
| An instruction that the Python interpreter can execute. | Answer 15 |
| A Python data type that holds a string of characters. | Answer 16 |
| A number or string (or other things to be named later) that can be stored in a variable or computed in an expression. | Answer 17 |
| A name that refers to a value. | Answer 18 |
| A name given to a variable. | Answer 19 |

Feedback

The correct answer is: A statement that assigns a value to a name (variable). → assignment statement, Information in a program that is meant for other programmers (or anyone reading the source code) and has no effect on the execution of the program. → comment, The ability to combine simple expressions and statements into compound statements and expressions in order to represent complex computations concisely. → composition, To join two strings end-to-end. → concatenate, A set of values. → data type, To simplify an expression by performing the operations in order to yield a single value. → evaluate, A combination of variables, operators, and values that represents a single result value. → expression, A Python data type which stores floating-point numbers. → float, A Python data type that holds positive and negative whole numbers. → int, An operation that divides one integer by another and yields an integer. → integer division, A reserved word that is used by the compiler to parse programs. → keyword, One of the values on which an operator operates. → operand, A special symbol that represents a simple computation like addition, multiplication, or string concatenation. → operator, The set of rules governing the order in which expressions involving multiple operators and operands are evaluated. → rules of precedence, An instruction that the Python interpreter can execute. → statement, A Python data type that holds a string of characters. → str, A number or string (or other things to be named later) that can be stored in a variable or computed in an expression. → value, A name that refers to a value. → variable, A name given to a variable. → variable name

Question **29**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

A program is a sequence of instructions that specifies how to perform a computation.

Select one:

True

False

Feedback

The correct answer is 'True'.

Question **30**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

What output will the following python commands produce:  
  
>>> print ((1+1)\*\*(5-2))

Select one:

a. 16

b. 8

c. 4

d. 2

Feedback

The correct answer is: 8

**SELF\_QUIZ UNIT 4**

**SELF\_QUIZ UNIT 5**

**SELF\_QUIZ UNIT 6**

A function that returns an integer value grater than 0 is called a boolean function.

Select one:

True

False

### Question 2

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Encapsulation is the process of wrapping a piece of code in a function

Select one:

True

False

### Question 3

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Repeated execution of a set of programming statements is called repetitive execution.

Select one:

True

False

### Question 4

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

A development approach that that is intended to avoid a lot of debugging by only adding and testing small amounts of code at a time is called.

Select one:

a. structured development

b. incremental development

c. unit testing

d. Systems development life cycle

### Question 5

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

What output will the following code produce?  
  
def area(l, w):  
    temp = l \* w;  
    return temp  
  
l = 4.0  
w = 3.25  
x = area(l, w)  
if ( x ):  
  print (x)

Select one:

a. 13.0

b. 0

c. Expression does not evaluate to boolean true

d. 13

### Question 6

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following code produce?  
  
n = 10  
while n != 1:  
    print (n,)  
    if n % 2 == 0:        # n is even  
        n = n // 2  
    else:                # n is odd  
        n = n \* 3 + 1

Select one:

a. 10 5 16 8 4 2

b. None an error will be displayed

c. 8 4 2

d. 9 28 14 7 22 11 34 17 52 26 13 40 20 10 5 16 8 4 2

### Question 7

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following statements produce using Python IDLE in interactive mode?   
  
>>>  n = 2  
>>>  n += 5  
>>>  n

Select one:

a. 7

b. 5

c. 2

d. an error message will occur

### Question 8

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The statements inside of a loop are known as the \_\_\_\_ of the loop.

Select one:

a. body

b. expression

c. counter

d. block

### Question 9

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

A loop where the terminating condition is never achieved is called an \_\_\_\_\_\_\_

Select one:

a. infinite loop

b. universal loop

c. while loop

d. for .. ever loop

### Question 10

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Functions can only return Boolean expressions.

Select one:

True

False

### Question 11

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

With built in functions, it is generally acceptable to take a "Leap of Faith".

Select one:

True

False

### Question 12

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

"Dead code" is code that performs calculations but never displays the results.

Select one:

True

False

### Question 13

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Boolean expressions control \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Select one:

a. recursion

b. conditional execution

c. alternative execution

d. all of the above

### Question 14

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The modulus operator is the same as the divide operator.

Select one:

True

False

### Question 15

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Chained conditionals are used when there are three or more possibilities.

Select one:

True

False

**GRADED\_QUIZ UNIT 6**

**SELF\_QUIZ UNIT 7**

: A data type in which the values are made up of components, or elements, that are themselves values is known as an object data type.

Select one:

True

False

### Question 2

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Given any real numbers a and b, exactly one of the following relations holds: a < b, a > b, or a = b. Thus when you can establish that two of the relations are false, you can assume the remaining one is true.  
  
This principle is known as:

Select one:

a. trichotomy

b. abstraction

c. the distributive property

d. the transitive property

### Question 3

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

Given the following code what will the output be?  
  
def find(strng, ch):  
    index = 0  
    while index < len(strng):  
        if strng[index] == ch:  
            return index  
        index += 1  
    return -1  
  
print (find("the doctor is in", '\*'))

Select one:

a. -1

b. 0

c. 12

d. 13

### Question 4

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

Given the following code, what will the output be?   
  
  
  
index = "Ability is a poor man's wealth".find("w")  
print(index)

Select one:

a. 24

b. 0

c. 23

d. -1

### Question 5

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

: A parameter written in a function header with an assignment to a default value which it will receive if no corresponding argument is given for it in the function call is called an optional parameter.

Select one:

True

False

### Question 6

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following code produce?  
  
print ("%s %d %f" % (5, 5, 5))

Select one:

a. 5 5 5.000000

b. 5 5 5

c. 5 5.000000

d. 0 5 5.0

### Question 7

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

: To create a new object that has the same value as an existing object is know as creating an alias.

Select one:

True

False

### Question 8

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following code produce?   
  
mylist = [ [2,4,1], [1,2,3], [2,3,5] ]  
a=0  
b=0  
total = 0  
while a <= 2:  
    while b < 2:  
        total += mylist[a][b]  
        b += 1  
    a += 1  
    b = 0    
print (total)

Select one:

a. 14

b. 23

c. 0

d. 13

### Question 9

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

: The following code:  
  
for fruit in ["banana", "apple", "quince"]:  
    print (fruit)  
      
will produce the following output:  
  
banana apple quince

Select one:

True

False

### Question 10

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Given the following code, what will the output be?   
  
mylist = ["now", "four", "is", "score", "the", "and seven", "time", "years", "for"]   
a=0  
while a < 7:  
    print (mylist[a],)  
    a += 2

Select one:

a. now is the time

b. now is the time for

c. for score and seven years

d. now four is score the and seven time years for

### Question 11

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The output of the following code will be:  
  
fruit = "banana"  
letter = fruit[1]  
print (letter)

Select one:

a. b

b. a

c. n

d. banana

### Question 12

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

A variable that has a data type of "str" cannot be a compound data type.

Select one:

True

False

### Question 13

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Traversal can only be accomplished with the "while" loop.

Select one:

True

False

### Question 14

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Strings are easily changed with string slices.

Select one:

True

False

### Question 15

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

The elements of a list are immutable.

Select one:

True

False

REVIEW QUIZ

What does function subroutine do?  
  
def subroutine(n):  
  while n > 0:  
      print (n,)  
      n -= 1

Select one:

a. Counts from 10 down to 0 and displays each number

b. Counts from n down to 1 and displays each number

c. Calculates the sum of n numbers greater than 0

d. Calculates the mean of n

### Question 2

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following python commands produce:  
  
x=1  
y=2  
if x == y:  
    print (x, "and", y, "are equal")  
else:  
    if x < y:  
        print (x, "is less than", y)  
    else:  
        print (x, "is greater than", y)

Select one:

a. 1 and 2 are equal

b. 1 is less than 2

c. 1 is greater than 2

d. 2 is greater than 1

### Question 3

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following statements produce?   
  
n = 2  
n += 5  
print(n)

Select one:

a. 7

b. 5

c. 0

d. None

### Question 4

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following python commands produce:  
  
>>> print ((1+1)\*\*(5-2))

Select one:

a. 16

b. 8

c. 4

d. 2

### Question 5

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

Repeated execution of a set of programming statements is called repetitive execution.

Select one:

True

False

### Question 6

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Encapsulation is the process of wrapping a piece of code in a function

Select one:

True

False

### Question 7

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Variable names are not case sensitive.

Select one:

True

False

### Question 8

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

Variables that are defined inside of a module are called what?

Select one:

a. Attributes

b. Local Variables

c. Methods

d. Keywords

### Question 9

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Using keywords for variable names will result in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Select one:

a. runtime error

b. compile error

c. syntax error

d. semantic error

### Question 10

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

Given the following code, what will the output be?   
  
import string  
  
index = "Ability is a poor man's wealth".find("w")  
print(index)

Select one:

a. 24

b. 0

c. 23

d. -1

### Question 11

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following python commands produce:  
  
>>> print (2 \* (3-1))

Select one:

a. 6

b. 5

c. 4

d. 3

### Question 12

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Which of the following is NOT one of the rules for pseudo code:

Select one:

a. Indent to show hierarchy

b. Keep statements language independent

c. Write only one statement per line

d. Capitalize every word

### Question 13

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

: A parameter written in a function header with an assignment to a default value which it will receive if no corresponding argument is given for it in the function call is called an optional parameter.

Select one:

True

False

### Question 14

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Sub-routine process

b. Decision

c. Input/Output

d. Process

### Question 15

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The statements inside of a loop are known as the \_\_\_\_ of the loop.

Select one:

a. body

b. expression

c. counter

d. block

### Question 16

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What is the output of the following statements?   
  
pi = int(3.14159)  
print (pi)

Select one:

a. 3

b. 3.0

c. 3.14159

d. 0

### Question 17

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What will the following code segment do?  
  
infile.readlines()

Select one:

a. Read all remaining lines in a file

b. Read the next consecutive line from a file

c. Print the contents of the file

d. Print the first line in the file

### Question 18

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following Python script produce?  
  
def function2(param):  
    print (param, param)  
  
def function1(part1, part2):  
    cat = part1 + part2  
    function2(cat)  
  
chant1 = "See You "  
chant2 = "See Me "  
function1(chant1, chant2)

Select one:

a. See You See Me

b. See You See Me See You See Me

c. See Me See Me See You See You

d. None it would generate an error

### Question 19

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Decision

b. Input/output

c. Process

d. Start/End of Process

### Question 20

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Decision

b. Start/End

c. Input/Output

d. Sub-routine process

### Question 21

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Every flowchart must have a START and STOP symbol.

Select one:

True

False

### Question 22

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Given any real numbers a and b, exactly one of the following relations holds: a < b, a > b, or a = b. Thus when you can establish that two of the relations are false, you can assume the remaining one is true.  
  
This principle is known as:

Select one:

a. trichotomy

b. abstraction

c. the distributive property

d. the transitive property

### Question 23

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

One of the advantages of a function is that it allows the programmer to alter the flow of execution in the program.

Select one:

True

False

### Question 24

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

True or False: A local variable is a variable defined inside a function that can only be used inside its function.

Select one:

True

False

### Question 25

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What is the output of the following statements?   
  
pi = float(3.14159)  
print (pi)

Select one:

a. 3

b. 3.0

c. 3.14159

d. 0

### Question 26

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Which of the following is NOT one of the computer languages developed in the 1950s.

Select one:

a. COBOL

b. Fortran

c. BASIC (Beginners All Purpose Symbolic Instruction Code)

d. LISP

### Question 27

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What does function subroutine do?  
  
def subroutine( n ):  
  while n > 0:  
      print (n,)  
      n -= 1

Select one:

a. Counts from 10 down to 0 and displays each number

b. Counts from n down to 1 and displays each number

c. Calculates the sum of n numbers greater than 0

d. Calculates the mean of n

### Question 28

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

: The following code:  
  
for fruit in ["banana", "apple", "quince"]  
    print (fruit)  
      
will produce the following output:  
  
banana   
apple   
quince

Select one:

True

False

### Question 29

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

A development approach that that is intended to avoid a lot of debugging by only adding and testing small amounts of code at a time is called.

Select one:

a. structured development

b. incremental development

c. unit testing

d. Systems development life cycle

### Question 30

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following python commands produce:  
  
>>> print (2\*3-1)

Select one:

a. 6

b. 5

c. 4

d. 3

### Question 31

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

: A data type in which the values are made up of components, or elements, that are themselves values is known as an object data type.

Select one:

True

False

### Question 32

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

In the following Python statement, what do we call the portion of the statement before the dot ('string.')?   
  
string.capitalize('maryland')

Select one:

a. Module

b. Method

c. Function name

d. Attribute

### Question 33

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Programmers generally choose names for their variables that are meaningful and document what the variable is used for.

Select one:

True

False

### Question 34

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

What output will the following python command produce:  
  
>>> percentage = ( 60 \* 100) / 55  
>>> print (percentage)

Select one:

a. percentage

b. 109

c. 109.0909090909091

d. 109.0

### Question 35

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Memory that can maintain its state without power is know as.

Select one:

a. Non volatile memory

b. Flash drives

c. Random access memory (RAM)

d. Disk drive storage

### Question 36

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

What will the output of this program be when it is executed?   
  
def test\_function( length, width, height):  
    print ("the area of the box is ", length\*width\*height)  
    return length\*width\*height  
  
l = 12.5  
w = 5  
h = 2  
test\_function(l, w, h)  
  
print ("The area of the box is ", length\*width\*height)

Select one:

a. A NameError because a variable not defined

b. The area of the box is 125.0

c. The area of the box is 0

d. A SyntaxError due to illegal function call

### Question 37

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

What will the output of the following program be?  
  
i=0  
while (i < max(1, 22-4\*5, 3\*5-3\*4, 2\*\*2)):  
      i+= 1  
print (i)

Select one:

a. 0

b. 5

c. 3

d. 4

### Question 38

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The set of modules that are included in the default installation of python are known as the:

Select one:

a. Standard Library

b. API (Application Programming Interface)

c. Module Library

d. Python Library

### Question 39

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following code produce?  
  
n = 10  
while n != 1:  
    print (n,)  
    if n % 2 == 0:        # n is even  
        n = n // 2  
    else:                # n is odd  
        n = n \* 3 + 1

Select one:

a. 10 5 16 8 4 2

b. None an error will be displayed

c. 8 4 2

d. 9 28 14 7 22 11 34 17 52 26 13 40 20 10 5 16 8 4 2

### Question 40

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What will the output of this python program be?  
  
def test\_function( length, width, height):  
    print ("the area of the box is ",length\*width\*height)  
    return length\*width\*height  
  
l = 12.5  
w = 5  
h = 2  
test\_function(l, w, h)

Select one:

a. The area of the box is 125

b. The area of the box is 125.0

c. The area of the box is 120

d. 125.0

### Question 41

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Input/output

b. Decision

c. Start/End of process

d. Sub-routine process

### Question 42

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

True or False: The graphical representation of a stack of functions, their variables, and the values to which they refer is called a traceback?

Select one:

True

False

### Question 43

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

A popular computer language developed by Dennis Ritchie and Ken Thompson at Bell Labs in the 70s is.

Select one:

a. APL

b. Basic

c. C

d. PL/1

### Question 44

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The following code is an example of what principle?   
  
bruce = 5  
print (bruce,)  
bruce = 7  
print (bruce)

Select one:

a. Multiple assignment

b. An Iteration or loop structure

c. A logical operator

d. A conditional expression

### Question 45

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

A loop where the terminating condition is never achieved is called an \_\_\_\_\_\_\_

Select one:

a. infinite loop

b. universal loop

c. while loop

d. for .. ever loop

### Question 46

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The dot operator (.) permits access to attributes and functions of a module (or attributes and methods of a class or instance).

Select one:

True

False

### Question 47

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following python command produce:  
  
>>> print (1,000,000)

Select one:

a.

b. 1,000,000

c. 1 0 0

d. Error invalid type

### Question 48

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The C language was developed at Bell Labs with the objective of being the first object oriented language

Select one:

True

False

### Question 49

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The BASIC language was developed by John G. Kemeny at which school.

Select one:

a. Harvard University

b. Stanford University

c. Dartmouth College

d. Carnegie Mellon University

### Question 50

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following python command produce:  
  
>>> percentage =  float ( 60 \* 100) / 55  
>>> print (percentage)

Select one:

a. percentage

b. 109

c. 109.0909090909091

d. 109.0

### Question 51

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

A function that returns an integer value grater than 0 is called a boolean function.

Select one:

True

False

### Question 52

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

A stack diagram shows the value of each variable and the function to which each variable belongs.

Select one:

True

False

### Question 53

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

In the following segment of code what do we call the portion of the statement that follows the dot (capitalize)?  
  
string.capitalize('maryland')

Select one:

a. Module

b. Method

c. Attribute

d. Function name

### Question 54

Partially correct

Mark 0.84 out of 1.00

Flag question

#### Question text

Match concepts with their definition!

|  |  |
| --- | --- |
| A statement that assigns a value to a name (variable). | Answer 1 |
| Information in a program that is meant for other programmers (or anyone reading the source code) and has no effect on the execution of the program. | Answer 2 |
| The ability to combine simple expressions and statements into compound statements and expressions in order to represent complex computations concisely. | Answer 3 |
| To join two strings end-to-end. | Answer 4 |
| A set of values. | Answer 5 |
| To simplify an expression by performing the operations in order to yield a single value. | Answer 6 |
| A combination of variables, operators, and values that represents a single result value. | Answer 7 |
| A Python data type which stores floating-point numbers. | Answer 8 |
| A Python data type that holds positive and negative whole numbers. | Answer 9 |
| An operation that divides one integer by another and yields an integer. | Answer 10 |
| A reserved word that is used by the compiler to parse programs. | Answer 11 |
| One of the values on which an operator operates. | Answer 12 |
| A special symbol that represents a simple computation like addition, multiplication, or string concatenation. | Answer 13 |
| The set of rules governing the order in which expressions involving multiple operators and operands are evaluated. | Answer 14 |
| An instruction that the Python interpreter can execute. | Answer 15 |
| A Python data type that holds a string of characters. | Answer 16 |
| A number or string (or other things to be named later) that can be stored in a variable or computed in an expression. | Answer 17 |
| A name that refers to a value. | Answer 18 |
| A name given to a variable. | Answer 19 |

### Question 55

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Fortran language was designed to process business transactions

Select one:

True

False

### Question 56

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Match the following terms and definitions

|  |  |
| --- | --- |
| The order in which statements are executed during a program run. | Answer 1 |
| The first part of a compound statement, begins with a keyword and ends with a colon ( : ) | Answer 2 |
| A statement that executes a function. It consists of the name of the function followed by a list of arguments enclosed in parentheses. | Answer 3 |
| A variable defined inside a function that can only be used inside its function. | Answer 4 |
| A graphical representation of functions, their variables, and the values to which they refer. | Answer 5 |

### Question 57

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What does the following symbol mean when used in a flowchart?

Select one:

a. Start/End of process

b. Input/output

c. Sub-routine process

d. Decision

### Question 58

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following python commands produce:  
  
n = 10000  
count = 0  
while n:  
    count = count + 1  
    n = n // 10  
  
print (count)

Select one:

a. 5

b. 0

c. 10000

d. 1000

### Question 59

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

An advantage of Pseudo code is that it is a visual technique.

Select one:

True

False

### Question 60

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

: To create a new object that has the same value as an existing object is know as creating an alias.

Select one:

True

False

### Question 61

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Which of the following is NOT a valid mode that can be used to open a file when using the 'open' statement?

Select one:

a. r (read)

b. w (write)

c. a (append)

d. x (eXecute)

### Question 62

Partially correct

Mark 0.04 out of 1.00

Remove flag

#### Question text

Match concepts with their definition.

|  |  |
| --- | --- |
| A general process for solving a category of problems. | Answer 1 |
| An error in a program. | Answer 2 |
| An intermediate language between source code and object code. | Answer 3 |
| To translate a program written in a high-level language into a low-level language all at once, in preparation for later execution. | Answer 4 |
| The process of finding and removing any of the three kinds of programming errors. | Answer 5 |
| Another name for a runtime error. | Answer 6 |
| Another name for object code that is ready to be executed. | Answer 7 |
| Any one of the languages that people have designed for specific purposes, such as representing mathematical ideas or computer programs; all programming languages are this kind of languages. | Answer 8 |
| A programming language like Python that is designed to be easy for humans to read and write. | Answer 9 |
| To execute a program in a high-level language by translating it one line at a time. | Answer 10 |
| A programming language that is designed to be easy for a computer to execute; also called machine language or assembly language. | Answer 11 |
| Any one of the languages that people speak that evolved naturally. | Answer 12 |
| The output of the compiler after it translates the program. | Answer 13 |
| To examine a program and analyse the syntactic structure. | Answer 14 |
| A property of a program that can run on more than one kind of computer. | Answer 15 |
| An instruction that causes the Python interpreter to display a value on the screen. | Answer 16 |
| The process of formulating a problem, finding a solution, and expressing the solution. | Answer 17 |
| a sequence of instructions that specifies to a computer actions and computations to be performed. | Answer 18 |
| An interactive user interface to the Python interpreter. | Answer 19 |
| An error that does not occur until the program has started to execute but that prevents the program from continuing. | Answer 20 |
| A program stored in a file (usually one that will be interpreted). | Answer 21 |
| An error in a program that makes it do something other than what the programmer intended. | Answer 22 |
| The meaning of a program. | Answer 23 |
| A program in a high-level language before being compiled. | Answer 24 |
| The structure of a program. | Answer 25 |

### Question 63

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What will the contents of mylist be after the following code has been executed?   
  
>>> mylist = [1, 4, 2 3]  
>>> mylist.append(5)

Select one:

a. [1, 4, 2, 3, 5]

b. [5, 1, 4, 2, 3]

c. [null]

d. [1, 4, 2, 3]

### Question 64

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Perl, Python, and PHP are all compiled languages

Select one:

True

False

### Question 65

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Given the following code, what will the output be?   
  
mylist = ["now", "four", "is", "score", "the", "and seven", "time", "years", "for"]   
a=0  
while a < 7:  
    print (mylist[a],)  
    a += 2

Select one:

a. now is the time

b. now is the time for

c. for score and seven years

d. now four is score the and seven time years for

### Question 66

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Pseudo code is a newer tool and has features that make it more reflective of the structured concepts.

Select one:

True

False

### Question 67

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Given the following code what will the output be?  
  
def find(strng, ch):  
    index = 0  
    while index < len(strng):  
        if strng[index] == ch:  
            return index  
        index += 1  
    return -1  
  
print (find("the doctor is in", '\*'))

Select one:

a. -1

b. 0

c. 12

d. 13

### Question 68

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

What output will the following python commands produce:  
  
>>> n = 17  
>>> print (n)

Select one:

a.

b. 17.0

c. n

d. 17

### Question 69

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following code produce?  
  
print ("%s %d %f" % (5, 5, 5))

Select one:

a. 5 5 5.000000

b. 5 5 5

c. 5 5.000000

d. 0 5 5.0

### Question 70

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The concept of a computer bug was first attributed to \_\_\_\_\_\_ who found a moth stuck in a relay that caused a failure in a computer at Harvard University. The term debugging has since come to mean correcting errors in a computer or computer program.

Select one:

a. Grace Murray Hopper

b. John von Neumann

c. Charles Babbage

d. Konrad Zuse

### Question 71

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following python commands produce:  
  
x = 5  
if x % 2 == 0:  
    print (x)  
else:  
    print (x, x%2)

Select one:

a. 5

b. 5 1

c. 2

d. 5 0

### Question 72

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

The COBOL language was designed to solve business problems and was adapted to processing business transactions

Select one:

True

False

### Question 73

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

Creating a python script file with a .py extension on the filename and placing it in the appropriate directory is all that is required to create a module?

Select one:

True

False

### Question 74

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

What will the output of the following code be?  
  
def recursive( depth ):  
    depth+=1  
    while (depth < 5):  
        ret = recursive(depth)  
    return depth  
  
ret = recursive( 0 )  
print ("the recursive depth is ", ret)

Select one:

a. the recursive depth is 5

b. the recursive depth is 4

c. Error due to depth of recursive calls

d. None

### Question 75

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Expressions evaluate to either true or false.  What will the output of the following code be when the  expression ( Ni! ) is evaluated?   
  
if "Ni!":  
    print ('We are the Knights who say, "Ni!"')  
else:  
    print ("Stop it! No more of this!")

Select one:

a. Stop it!

b. We are the Knights who say, "Ni!"

c. Stop it! No more of this!"

d. No output will be produced

### Question 76

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

An advantage of Pseudo code is that it requires no special tools and can easily be written on a word processor.

Select one:

True

False

### Question 77

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

A program is a sequence of instructions that specifies how to perform a computation.

Select one:

True

False

### Question 78

Incorrect

Mark 0.00 out of 1.00

Flag question

#### Question text

What output will the following code produce?   
  
mylist = [ [2,4,1], [1,2,3], [2,3,5] ]  
a=0  
b=0  
total = 0  
while a <= 2:  
    while b < 2:  
        total += mylist[a][b]  
        b += 1  
    a += 1  
    b = 0    
print (total)

Select one:

a. 14

b. 23

c. 0

d. 13

### Question 79

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

What output will the following code produce?  
  
def area(l, w):  
    temp = l \* w;  
    return temp  
  
l = 4.0  
w = 3.25  
x = area(l, w)  
if ( x ):  
  print (x)

Select one:

a. 13.0

b. 0

c. Expression does not evaluate to boolean true

d. 13

### Question 80

Correct

Mark 1.00 out of 1.00

Flag question

#### Question text

Functions can only return Boolean expressions.

Select one:

True

False