**LMS Questions for**

(Five multiple choice questions per unit with one correct answer and three incorrect answers)

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| **Unit/**  **Question Number** | **Question** | **Correct answer** | **Incorrect answer** | **Incorrect answer** | **Incorrect answer** |
| 1/1 | Which of the following is not a reason why Python is such a popular software development language? | Python code is compiled into an executable, which is helpful for web development. | Python is relatively easy to read. | Python has a large community of active developers building libraries and tools for Python development. | Python is very concise, meaning you can do more with less code. |
| 1/2 | In which specializations is Python a primary language of choice for professionals and researchers? | data science / artificial intelligence | agricultural science / life sciences | operating systems development / system programming | languages / literary studies |
| 1/3 | The primary function of the Python interpreter is to… | …read code, execute it, and return the output. | …compile code and create a machine code executable. | …allow developers to work with code, Markup, and text documents simultaneously. | …ensure consistency with variable and function names. |
| 1/4 | One of the benefits of Jupyter Notebook is that it… | …allows developers to combine code, Markup, and raw text in one document. | …detects errors in code as you type them. | …removes the need to rely on a Python interpreter to run Python code. | …uses Python code but compiles it in C, which is much faster. |
| 1/5 | JupyterLab uses IPython as… | …the backend interpreter for Python code. | …the tool that translates Markup formatting. | …the way to encrypt data from the client to the server. | …the compiler to create Python executables. |
| **Unit/**  **Question Number** | **Question** | **Correct answer** | **Incorrect answer** | **Incorrect answer** | **Incorrect answer** |
| 2/1 | How do you represent a hexadecimal number in Python? | 0x42 | Hex.42 | 42/16 | You cannot represent hexadecimal numbers in Python. |
| 2/2 | What is the result of this equation: 80 % 25? | 5 | 3 | 3.2 | a syntax error |
| 2/3 | How would you put quotes into a string in Python? | my\_string = “this has \”quotes\”.” | my\_string = “this has “””quotes”””.” | my\_string = “this has \t”quotes\t”.” | my\_string = “this has ” + “quotes” + “.” |
| 2/4 | If I have a string “my\_string” with the value "Python is so powerful!" how do I substring to get just “is so”? | my\_string[7::12] | my\_string[7:] | my\_string[6:5] | my\_string[7:5] |
| 2/5 | I want to open and write to a file called “thatfile.txt”. If the file does not exist, I want to create it but if it does exist, I want to write at the end of the file, preserving what’s already in the file. How do I do that? | open(“thatfile.txt”, “a”) | open(“thatfile.txt”, “r”) | open(“thatfile.txt”, “x”) | open(“thatfile.txt”, “c”) |
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| 3/1 | What is the value of the variable c after the following statement?  a=b=c=d=5 | 5 | d | undefined | error |
| 3/2 | What is the output of the following code if the user enters the number 0?  my\_num = int(input())  if my\_num < 0:  print(1)  elif my\_num > 0:  print(2)  else:  print(3) | 3 | 0 | 1 | 2 |
| 3/3 | Why will the following code not run?  my\_num = 0  int(input())  if my\_num < 0  print(1)  elif my\_num > 0  print(2)  else  print(3) | The colons are missing at the end of the else, elif, and if lines. | The code is invalid no matter which way it is written. | There is a spelling error in the code. | The number entered does not produce an output from the code. |
| 3/4 | Which of the following will generate a range of numbers from 11 to 99? | range(11,100) | range(11,99) | range(10,99) | range(10,100) |
| 3/5 | I have a list of values called “my\_list”. How do I loop through all of the values in “my\_list” without changing the loop to modify “my\_list”? | def my\_func(a, b=0, c=”Yes”): | my\_list.loop | while len(listy)>0: | def my\_func(a,b(0),c(“Yes): |
| **Unit/**  **Question Number** | **Question** | **Correct answer** | **Incorrect answer** | **Incorrect answer** | **Incorrect answer** |
| 4/1 | Why are functions helpful? | Functions facilitate code reusability. | Functions eliminate all code-related errors. | Coding with functions provides more accurate results than not coding with functions. | Functions make reading code easier. |
| 4/2 | What is scope? | Scope is the term used to describe the points at which in code variables and functions are defined. | Scope determines the number of functions and arguments that can be defined in a program. | Scope allows variables to hold different data types. | Scope is the term used to describe return values for functions. |
| 4/3 | Why is there an error when trying to run this code?  a=int(input())  b=int(input())  if c < a + b:  print(“Less than a + b”)  a = b = c = 1  print(a,b,c) | The variable c is not in scope or defined in line 3. | The variable b is not in scope or defined in line 3. | The variable a is not in scope or defined in line 3. | The final line of the code is incorrect. |
| 4/4 | Which of the following lines of code defines a function named “my\_func” that has three parameters (a, b, and c) where b defaults to 0 and c defaults to “Yes”? | def my\_func(a, b=0, c=”Yes”): | my\_func(a, b, c): | def my\_func(a, b, c): | def my\_func(a, b(0), c(“Yes”): |
| 4/5 | Which of the following lines of code will not call a function named “my\_func” that has three parameters (a, b, and c) where b defaults to 0 and c defaults to “Yes”? | my\_func( ) | my\_func(1) | my\_func(1, c=”No”) | my\_func(1, 2) |
| **Unit/**  **Question Number** | **Question** | **Correct answer** | **Incorrect answer** | **Incorrect answer** | **Incorrect answer** |
| 5/1 | What is the difference between a syntax error and an exception? | Exceptions are run-time errors that cause application termination. Syntax errors are errors that prevent an application from running because code does not conform to the language rules. | Syntax errors are run-time errors that cause application termination. Exceptions are errors that prevent an application from running because code does not conform to the language rules. | Syntax errors result in a program crash. Exceptions result in only an error message from the interpreter. | There is no difference, exceptions and syntax errors are the same. |
| 5/2 | Which of the following options describes the best way to deal with a syntax error? | Find the section of code referenced by the interpreter’s error message and understand what it is doing, as well as understanding the code around, it to identify the problem. | Find the section in code pointed to by the interpreter’s error message and change it. | Find the line of code specified by the interpreter’s error message and change it. | Find the section of code referenced by the interpreter’s error message and remove it. |
| 5/3 | If I try to open a file that does not exist using Python’s open function, what will likely be the result? | A FileNotFoundError exception | A FileNotFoundError syntax error | An IncorrectFilePathError syntax error | An IncorrectFilePathError exception |
| 5/4 | Some code is being written where an exception may occur. The exception should be handled properly so the application will not crash. The specific exception that may occur is the ZeroDivisionError exception. Regardless of whether or not the exception occurs, there’s some cleanup code that needs to run. What should be done? | Implement a try block, a specific ZeroDivisionError except block, and a finally block. | Implement a try block and a generic except block. No other exception handling components are needed. | Implement a try block, no other exception handling components are needed. | Implement a try block and a specific ZeroDivisionError except block. No other exception handling components are needed. |
| 5/5 | Which of the following will set my logging level to CRITICAL? | logging.basicConfig(level = logging. CRITICAL) | logging.basicConfig = logging. CRITICAL | logging.basicConfig.level = logging. CRITICAL | logging. level = logging.CRITICAL |
| **Unit/**  **Question Number** | **Question** | **Correct answer** | **Incorrect answer** | **Incorrect answer** | **Incorrect answer** |
| 6/1 | Which of the following will import a specific function, add\_numbers, from a library, adding\_library? | from adding\_library import add\_numbers | import adding\_library | import add\_numers from adding\_library | import adding\_library.adding\_numbers |
| 6/2 | There is a function, “my\_function”. Within that function, a variable called “my\_var” is created. In which namespace does my\_var exist? | local | global | built-in | function |
| 6/3 | Python’s int( ) function will take an argument and convert it to an integer. In which namespace does int( ) exist? | built-in | local | function | global |
| 6/4 | Which best describes the difference between a comment and a docstring in Python? | Comments do not have a functional purpose but docstrings tie into the Python documentation help library. | They are syntactically different, but they function exactly the same way. | Docstrings do not have a functional purpose but comments tie into the Python documentation help library. | Comments are compiled into the final executable file and docstrings are not. |
| 6/5 | Which of the following is not a Python library used frequently for data science applications? | DataPyScience | NumPy | SciPy | Pandas |
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| 7/1 |  |  |  |  |  |
| 7/2 |  |  |  |  |  |
| 7/3 |  |  |  |  |  |
| 7/4 |  |  |  |  |  |
| 7/5 |  |  |  |  |  |
| **Unit/**  **Question Number** | **Question** | **Correct answer** | **Incorrect answer** | **Incorrect answer** | **Incorrect answer** |
| 8/1 |  |  |  |  |  |
| 8/2 |  |  |  |  |  |
| 8/3 |  |  |  |  |  |
| 8/4 |  |  |  |  |  |
| 8/5 |  |  |  |  |  |
| **Unit/**  **Question Number** | **Question** | **Correct answer** | **Incorrect answer** | **Incorrect answer** | **Incorrect answer** |
| 9/1 |  |  |  |  |  |
| 9/2 |  |  |  |  |  |
| 9/3 |  |  |  |  |  |
| 9/4 |  |  |  |  |  |
| 9/5 |  |  |  |  |  |
| **Unit/**  **Question Number** | **Question** | **Correct answer** | **Incorrect answer** | **Incorrect answer** | **Incorrect answer** |
| 10/1 |  |  |  |  |  |
| 10/2 |  |  |  |  |  |
| 10/3 |  |  |  |  |  |
| 10/4 |  |  |  |  |  |
| 10/5 |  |  |  |  |  |
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