Q1. What is Jython and Cpython?

A1. **Jython-** Jython is the JVM implementation of the Python programming language. It is designed to run on the Java platform. A Jython program can import and use any Java class. Just as Java, Jython program compiles to bytecode.

Jython, which started as JPython and was later renamed.

**CPython-** CPython is the reference implementation of the Python programming language. Written in C and Python, CPython is the default and most widely used implementation of the language. CPython can be defined as both an interpreter and a compiler as it compiles Python code into bytecode before interpreting it.

Q2. Difference between Python2 and Python3

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| **Basis of Comparison** | **Python3** | **Python2** |
| Function print | print(“hello”) | print “hello” |
| Division of integers | Whenever two integers are divided, you get a float value | When two integers are divided, you always provide integer value |
| unicode | Default storing of strings is unicode | To store Unicode string value, you require to define them with ‘u’ |
| Leak of variables | Value of variables never changes | Value of global variable will change while using it inside for-loop |
| Syntax | Simpler and easily understandable | Comparatively difficult to understand |
| Exception handling | Exceptions to be enclosed in parenthesis | Exceptions to be enclosed in notations |
| Rules of ordering comparisons | rules are simplified | Rules are very complex |
| Iteration | The new Range() function introduced to perform iterations | xrange() function is used for iterations |

Q3. Difference between ASCII and Unicode

A3.

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| **ASCII** | **Unicode** |
| ASCII is a character-encoding scheme and it was the first character encoding standard | Unicode is a universal international standard character encoding that is capable of representing most of the world’s written languages |
| ASCII usually represents lowercase letters and uppercase letters, digits and symbols | Unicode represents all letters of Arabic, English and other languages |
| ASCII defines 128 characters, which map to the numbers 0-127 | Unicode defines (less than) 221 characters, which, similarly, map to numbers 0-221 |
| ASCII uses 7 bits to represent a character | It assigns each character a unique number, or code point |
| It requires less space | It requires more space |