Question 2

Number 1.

Compilation - A compiler is a special program that processes statements written in a particular programming language and turns them into machine language or "code" that a computer's [processor](https://whatis.techtarget.com/definition/processor) uses.

Interpretation - An interpreter is a [computer program](https://en.m.wikipedia.org/wiki/Computer_program) that directly [executes](https://en.m.wikipedia.org/wiki/Execution_(computers)), i.e. *performs*, instructions written in a [programming](https://en.m.wikipedia.org/wiki/Programming_language) or [scripting language](https://en.m.wikipedia.org/wiki/Scripting_language), without requiring them previously to have been [compiled](https://en.m.wikipedia.org/wiki/Compiler) into a [machine language](https://en.m.wikipedia.org/wiki/Machine_language) program.

Number 2.

Native code- Native code is computer programming that is compiled to run with a particular processor and its set of instructions. If the same program is run on a computer with a different processor, software can be provided so that the computer shows the original processor.

Byte code - Bytecode is computer  [code](https://whatis.techtarget.com/definition/object-code) that is processed by a program, usually as a [virtual machine](https://searchservervirtualization.techtarget.com/definition/virtual-machine), rather than by the "real" computer machine, the hardware [processor](https://whatis.techtarget.com/definition/processor). The virtual machine converts each machine [instruction](https://whatis.techtarget.com/definition/instruction) into a specific machine instruction that this computer's processor will understand. Bytecode is the result of compiling source code written in a language that supports this approach.

Number 3.

Virtual machine - virtual machine (VM) is a software program or operating system that not only exhibits the behaviour of a separate computer, but is also capable of performing tasks such as running applications and programs like a separate computer. A virtual machine, usually known as a guest is created within another computing environment referred as a "host”.

Number 4.

Variable - In programming, a variable is a value that can change, depending on conditions or on information passed to the program. A program consists of [instruction](https://whatis.techtarget.com/definition/instruction) s that tell the computer what to do and [data](https://searchdatamanagement.techtarget.com/definition/data) that the program uses when it is running. The data consists of *constants* or fixed values that never change.

Variable can be used for assigning values, characters, names, place or anything else which we need to use in future and variable have to be assign name so we can use in future. Some names are restricted to be used because they are actually command in python.

Number 5.

Data types - In computer science and computer programming, a data type or simply type is a classification of data which tells the compiler or interpreter how the programmer intends to use the data. Most programming languages support various types of data, for example: real, integer or Boolean.

Number 6.

Syntax - In programming, syntax refers to the rules that specify the correct combined sequence of symbols that can be used to form a correctly structured program using a given programming language. Programmers communicate with computers through the correctly structured syntax, semantics and grammar of a programming language.

Number 7.

Int and Float data types - Integers and floats are data types that deal with numbers. Int is used for getting integers by round to nearest integer. And Float is used for exact answer with decimal.

Number 8.

Integrated development environment – To type any program in terminal or directly is highly inconvenient so it requires an test editor which coordinates with the programming language so it can be easy for us. For example Vi, gedit etc.

Number 9.

Control flow – It is an direction in which individual program statement, instructions or functions are executed or evaluated.

Data flow - Dataflow is often defined using a model or diagram in which the entire process of data movement is mapped as it passes from one component to the next within a program or a system, taking into consideration how it changes form during the process.

Number 10.

Control flow graph - In computer science, a control flow graph (CFG) is the graphical representation of control flow or computation during the execution of programs or applications. Control flow graphs are mostly used in static analysis as well as compiler applications, as they can accurately represent the flow inside of a program unit.

Number 11.

Python's Syntax for 'if' statement – As in other statement first there is if condition and after that intended block which can have more than one statement as per our requirement.

If condition :

Intended statement block

Python's Syntax for ' while' command - key point of the while loop is that the loop might not ever run. When the condition is tested and the result is false, the loop body will be skipped and the first statement after the while loop will be executed.

While condition:

Intend statement block

Python’s Syntax for Indentation - Leading whitespace at the beginning of a logical line is used to compute the indentation level of the line, which in turn is used to determine the grouping of statements.









