Python basic assignment 24:

Q1) def function(argument):

if condition:

return value

lambda argument: return value if condition

Thus we can see argument relation, return relation and if condition relation. Similarly, we can see many other relations.

Q2) benefits of lambda - single line statement, no need of separate return keyword, faster execution, no need of declaration in namespace etc.

Q3) Reduce returns only one value as output, filter gives fewer outputs by filtering and map gives all the outputs after applying function to every iterable. Map applies function to all iterables, while filter filters iterables based on function and reduce reduces number of iterables to single output.

Q4) Function annotations are python expressions that can be used in various parts of function. They increase function capability and also bring in simplicity in code. They can be used through third party libraries, by installing or importing these libraries. They are accessed through ‘\_\_annotations\_\_’, pydoc and inspect standard modules.

Syntax:

For simple parameters, parameter: expression

For excess parameters, parameter: expression

Again, for nested parameters, same ”parameter: expression” is used for every parameter.

For return type, additional “-> expression” is also used.

Q5) Functions that call themselves are called recursive functions. If the same function is specified inside the definition of a function, it is recursive function since the function itself calls itself again.

Q6) Some guidelines:

1. Code should be simple and easy to understand
2. Proper indentation
3. Exception handling to prevent failures of code. Ex: using try and except
4. Logging practice
5. Small length of functions
6. Proper segregation of code into parts, with headings that describe parts accurately.

Q7) printing, returning value (in a variable, data frame, graphs etc), logging values in a document etc.