Introduction of python - Theory of question

1) What are the types of Applications?

=> Cloud application,

=> Desktop application,

=> Mobile application

=> Web application

=> Gaming application

=> Database application,

=> Server application

(2) What is programing?

programing is a one type of term in which we can write a different different computer language code like python , c ,c++,java to preform a task and make an application ,software and system in computer.

(3) What is Python?

' python is a simple programming language which is easy and have a wide range of framwork and libraries,which is find by **"guido van rossum"** in 1991 .

it is use for application devlopment ,software devlopment ,artificial intelligence, robotics.

(7) How memory is managed in Python?

In Python memory allocation and deallocation method is automatic as the Python developers created a garbage collector for Python so that the user does not have to do manual garbage collection.

Garbage Collection:

Garbage collection is a process in which the interpreter frees up the memory when not in use to make it available for other objects.

Reference Counting:

Reference counting works by counting the number of times an object is referenced by other objects in the system. When references to an object are removed, the reference count for an object is decremented. When the reference count becomeszero, the object is deallocated.

(43)What is tuple? Difference between list and tuple.

Tuples are used to store multiple items in a single variable.Tuple is one of 4 built-in data types in Python used to store collections of data, the other 3 are List, Set, and Dictionary ,all with different qualities and usage. A tuple is a collection which is ordered and unchangeable.

Diffrences:

Lists and Tuples in Python are two classes of Python Data

Structures. The list structure is dynamic, and readily changed whereas the tuple structure is static and cannot be changed. This means that the tuple is generally faster than the list. Lists are denoted by square brackets and tuples are denoted with parenthesis.

(65) How Many Basic Types of Functions Are Available in Python?

There are many functions available in python.

a)user defind functions : functions we create.

b)Recursive functions : Functions that call themselsves.

c) lambada function : small, anonymous functions.

(71)What is File function in python? What are keywords to create and write file.

In python file function is part of a web application. there are several keywords to create and write a file . To create a file keyword is 'x' and for write file is 'w'.

(83)Explain Exception handling? What is an Error in Python?

In Python, when an error occurs, Python will generate an error message , exceptions are assigned by try statement. In

Python, Errors are problems in a program that causes the program to stop its execution.

(84)How many except statements can a try-except block have? Name Some built-in exception classes:

A try-except block can have multiple except statements. You can use different except clauses to handle various exceptions, or combine them in one except statement using a tuple.

Python has many built-in exception classes, including:

Exception – The base class for all exceptions.

ValueError – Raised when a function gets a valid type but an incorrect value.

IndexError – Raised when an invalid index is used in a list or tuple.

KeyError – Raised when a dictionary key doesn't exist.

TypeError – Raised when an operation is applied to an incorrect type.

FileNotFoundError – Raised when a file cannot be found.

AttributeError – Raised when an attribute reference fails.

IOError – Raised for input/output issues (e.g., file reading errors).

ImportError – Raised when an import fails.

MemoryError – Raised when there is not enough memory to

continue

(85)When will the else part of try-except-else be executed?

when the code inside the try block will run without giving any errors than Else part of the code will executed (run). If an exception occurs intry block than except bolck will be executed without touching the else part.

(86)Can one block of except statements handle multiple exception?

Yes, one block of except statements can handle multiple exception in a tuple .

(87)When is the finally block executed?

In Python language, the finally block is always executed, whether or not an exception is raised.

It runs after the except and try blocks which is commonly used for cleanup tasks.