### 1] what are the types of applications?

### Ans-Applications are mainly of 3 types

### .Desktop Applications-installed and run on personal computers

### .EebApplications-Accessed via browers

### .Mobile Applications- run on mobile devices

### 2]What is Programming?

### Ans-programming is the process of writing instructions that a computer can execute to perform specific tasks or solve problems

### 3]What is Python?

### Ans-Phyton is high level,interpreted programming language known for its simplicity,readability and broad support for libraries in AI,data analysis and web development

### 7]How memory is managed in Python?

### Ans-Python uses- Automatic garbage collection to clean unused memory

### .Reference counting and cyclic garbage collector to manage object lifecycle

### .Private heap space where all Python object and data structures are stored

### 8]What is the purpose of the ‘continue’ statement in python?

### Ans-The continue statement skips the current iteration in a loop and jumps to the next one without executing the remaining code of the current loop body.

### 17] What are negative indexes and why are they used?

### Ans-Negative indexes allow access to elements from the end of a list or string- refer to the last element,to second last

### To easily access elements from the end without knowing the exact length

### 25]What is List? How will you reverse a list?

### Ans- List in Python is an ordered ,mutable collection of items.to reverse use list. reverse()

### 26]How will you remove last object from a list?

### Ans-Use list.pop() which removes and return the last item from the list

### 27]Suppose list1 is [2,33,222,14,25] What is lisr1[-1]?

### Ans-list1[-1]will return 25,the last element of the list (negative index)

### 28]Differentiate between append() and extend() methods?

### Ans- append() add one item to the list

### extend() adds elements from another iterable to the list

### 30] How will you compare two lists?

### Ans- Use the == operator to check if both lists have the same elements in the same order.

### 43]What is tuple? Difference between list and tuple?

### Ans- A tuple is an ordered, immutable(unchangeable) collection of items

### A **list** is a mutable, ordered collection of items, while a **tuple** is an immutable, ordered collection of items

### 51] How do you traverse through a Dictionary object in python?

### Ans- Use a for loop with .items() method for keys,value in dict.items()

### 52]How do you check the presence of a key in dictionary ?

### Ans-use the keyword if key in dictionary

### 65]How many basic types of functions are available in phyton?

### There are 2 types

### Built in function

### User defined function

### 66]How can you pick a random item from a list or tuple?

### Ans- import random

### random.choice(my\_list\_or\_tuple)

### 68] How can you get a random number in phyton?

### Ans-Integer: random.randint(a,b)

### Float:random.random()

### 69] How will you set the starting value in generating random number?

### Ans-Use seed() to initialize the random genetator

### 70]How will you randomize the items of a list in place?

### Ans- Use shuffle() to randomize the items of the list in place

### 83] Explain Exception handling? What is an error in phyton?

### Ans- Exception handling- A way to catch and handle error so that the program doesn’t crash.

### .Error-problem in the program that stops it from running

### 84]How many except statement can a try-except block have?Name some built-in exception classes

### Ans-A try block can have multiple except statement to handle different types of errors

### .some built in exception classes:

### .zeroDivisionError

### .ValueError

### .TypeError

### .FileNotFoundError

### .IndexError

### .KeyError

### 85]When will the else part of try except else be executed?

### Ans-The else block runs only if no exception occurs

### 86]Can one block of except statement handle multiple exception?

### Ans- yes one block of except can handle multiple exceptions in one except block by using tuple

### 87]When is the finally block executed?

### Ans-The finally block always runs whether an error occurs or not

### 88] What happen when ,,1”==1 is executed?

### Ans-“1” is a string and 1 is an integer so its give an false

### How do you handle exceptions with try/except/finally in python? Explain? With coding snippets.

### Ans-try:

### Num=int(input(“Enter a number”))

### result= 10/num

### except ValueError:

### print(“You must enter a number!”)

### except ZeroDivisionError:

### print(“Cannot divide by zero!”)

### else:

### print(“Result is:”,result)

### finally:

### print(“program finished (finally block always runs)”)