

# Python

Saathi

Date \_\_\_\_/\_\_\_\_/\_\_\_\_

1) What are the types of Applications?

→ There is 4 Types of Applications.

- (i) Descriptive Analytics (What happened?)
- (ii) Diagnostics Analytics (Why did it happened?)
- (iii) Predictive Analytics (What will happen)
- (iv) Prescriptive Analytics (What should we do?)

2) What is programming?

→ Programming is writing code to instruct computers to perform tasks or solve problems.

3) What is python?

→ Python is an interpreted, object-oriented, high-level programming language with dynamic semantics.

4) How memory is managed in python?

→ Python automatically manages memory using references counting to free unused objects and garbage collection to handle cyclic references.

5) What is the purpose continuing statement in python?

→ It continues with the next iteration of the loop. It's for filtering or skipping specific data points during processing.

6) What are negative indexing and why are they used?

→ Negative indexing allows accessing elements in sequence from the end.

- It provides one easy way to access elements from the end without calculating length of the sequence

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25) What is list? How will you reverse a list?

- A list is ordered, mutable collection of items that can store element of different data types.
- We can reverse a list using built-in function called `list.reverse()`.

26) How will you remove last object from a list?

- We can remove last object from list using `.pop()` method.

27) Suppose list 1 is `[2, 33, 222, 14, 25]` what is `list1[-1]`

- `list1[-1] = (25)`

28) Differentiate between `append()` and `extend()` methods?

- Using `append()` method we can add element to the end and using `extend()` method we can add multiple element.

30) How will you compare two list?

- We can compare two lists using comparison operators.

43) What is tuple? Difference between list and tuple

- Tuple is ordered, immutable, collection of items.
- Difference between tuple and lists are, the tuples are immutable and tuples use parentheses while list uses square brackets.

47) How will you create a dictionary using tuples in python?

- We can create a dictionary using tuple by using `dict()` constructor.



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51) How do you traverse through a dictionary object in a python?

- We can't traverse through keys using `'dict.keys()'`  
 - we can traverse through values `'dict.values()'`  
 - and we can traverse through both key & value using `'dict.items()'`

52) How do you check the presence of a key in Dictionary

- We can check the presence of a key in dictionary using membership operators.

65) How many Basic types of functions are available in python?

- There are two types of functions are available in python

→ (i) Built in function

→ (ii) User defined function.

71) What is a file functions in python? What are keyword to create and write a file?

- File functions provide the tools to interact with files on your system.

- 'w' (write) → it creates file or and opens it for write
- 'r' (Read)

83) Explain Exception handling? What is an error in python?

- It is a mechanism that allows you to gracefully manage errors or unexpected events that occur during the execution of programme.

→ It prevents your programme to getting crash

- By using this you can catch errors and log detailed information about errors.

→ "Error" refers to a problem that prevents your programme from running correctly.

84) How many except statement can a try-except block have?  
Name some built exception class.

→ Try-except block have one or more than one except statement as many as you need.

→ (i) ZeroDivision Error

(ii) Name Error

(iii) Syntax Error

(iv) Type Error

(v) Value Error

85) When will the else part of try-except-else be executed?  
→ It will execute only if the try block completes without raising an exception.

86) Can one block of except statement handle multiple exceptions?  
→ Yes, one block of except statement handle multiple exceptions.

87) When is the finally block executed?

→ It will always execute whether error raise or not.

88) What happens when, `if __name__ == '__main__':` is executed?

→ It will only execute when the file is run directly and does not execute if the file is imported as a module.

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89) How do you Handle Exceptions with try/except/finally in python? Explain with coding snippets.

→ try block : contains code that might raise an exception.

Except block(a) : This block catches and handle specific error. that occur in try block.

Finally block : This block contains code that will always execute. It's used for clean up operations.