

## 1. what is python?

- \* Python is an object oriented High level programming language
- \* It is simple yet powerful programming language
- \* It can be run equally on diff platforms such as windows, Linux, Unix, Etc
- \* Python is a portable language

## 2. what are the advantages of Python?

- \* Free and open source
- \* object oriented
- \* portable
- \* Extensible
- \* Built in Data structures

## 3. Python Literal's :-

Literal's is Defined as a data, which gives a variable or constant.

- \* String Literal's
- \* Boolean Literal's
- \* Special Literal's
- \* Numeric Literal's

## 4. Python function's

A function is a block of code, i.e written once & can be executed whenever ever reqd the programme.

- 1. Build in function
- 2. User defined function.

5. types of operators in python?

1. Arithmatic operator

2. Relational "

3. Assignment "

4. Logical "

5. Member "

6. Identity "

7. Bit wise operators

6. Iterators in python?

\* It is an object that contains countable number of values and all these values' can be transferred using for/forap.

7. Difference b/w Array's & List :- (numpy & List)

\* Array contains Homogenous type of Data

\* List contains Heterogenous type of Data (list of elements)

\* Numpy contains Homogeneous type of Data (one element)

8. Duplicate Elements Removed from list?

\* Convert the list into set Does not contain the Duplicate item's

9. Difference b/w Java & Python?

\* Java is a statically typed language

\* Python is a Dynamically typed language

10. memory management in a Python?

\* m.m.p involves a private Heap containing all Python objects and Data structures, internally by Python memory management.

11. Break:

```

n=1
for n in range(1,11):
    if n == 3:
        break
        print(n)
    o/p = 1,2,

```

Pass  
Continue  
Continue

n=1
for n in range(1,11):
 if n == 5:
 continue
 print(n)
 o/p = 1,2,3,4,6,7,8,9,10,11

Pass  
num=1
for num in range(1,11):
 if num == 3:
 pass
 print("Break")
 print(num)
 o/p = 1
 Break
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11

12. Difference b/w module & package in Python?

- \* Each Python programme file is a module, that imports other modules Like object & Attributes.
- \* The folder of a Python program is called a package of modules.

13. Decorator's in Python?

- \* Python syntax for easy Alteration of function.

14. What is difference b/w generator's & Iterators?

- \* The way of implementing the iterators is known as generator.

15. How to convert a number into a string.

- \* We can use the inbuilt str(). for an octal (0o) hexa decimal representation.

- \* We can use other inbuilt function like oct() or hex()

16. Indentation :- Indentation is necessary for Python. It specifies a block of code.

~~QUESTION~~ → QUESTION

17. Data Abstraction in Python?

- \* An Abstraction means hiding a data (or) only showing data that necessary.

Ex :- A.T.M

18. Slicing :-

\* The process of getting substring to main string is called slicing

1. Forward direction
2. Reverse direction.

19. Dynamically typed language?

\* that the type of variable is determined only during <sup>Execution</sup> <sub>run time</sub>

20. Difference b/w range & x-range.

\* Range :- Takes more memory as it keeps the Entire list of Element in memory

\* x-Range :- takes less memory as it keeps only one element at a time in memory

21. Drawbacks Python?

\* Python is slower than C(C++) C++

\* Python is not a good language for mobile development

\* Run time error

\* Python has limitation with data base Access

22. Local variable :- The variable created (as) insert inside a function, then it is called Local variable.

Global variable :- If the variable define a outside, then it is called Global variable.

23. copy of object in Python?

\* In python "we use" "=" operator to create a copy of an object.

24. What is a Python module & types of modules?

- \* "Python file" is a module
- \* A module may contain functions, classes, list etc.  
↓  
variables
- 1. Built-in modules
- 2. user defined modules

25. Difference b/w .py & .pyc files?

- \* .py files are python source code files
- \* .pyc files contain the byte code of the python files

26. what are the key words in Python?

\* "33" keyword's in python

- |        |         |          |
|--------|---------|----------|
| * And  | * Else  | * Def    |
| * or   | * for   | * Pass   |
| * Not  | * While | * Return |
| * If   | * Break | * True   |
| * Elif | * As    | * False  |
- etc.

27. Abstraction:

\* Abstraction means hiding lower-level detail & exposing only the Essential and relevant details to the user.  
↓  
important

28. Encapsulation:

It is a process of ~~obtaining~~ wrapping the data & methods in single unit is called Encapsulation

29. Polymorphism:

A process of Representing one form in multiple form is known as Polymorphism

Ex:- Polymorphism's Algo's has to perform a single action in diff ways

30. Why Python is a scripting language?

- \* Python uses an interpreter to translate and run its code

### 31. What is an Exception?

\* An Exception is an Error that Happens during the execution of a programme, when ever there is an error.

### 32. Required Argument's :-

The value to be past during the function call. It is called Req Argument's

Ex:-  $\text{add}(a, b)$   $\rightarrow$  Required Argument's.  
 $s = (a+b)$   
Print(s)

### 33. Default Argument's :-

\* It takes a default value.

Ex:-  $\text{def bill } (\underline{a}, \underline{b=20})$  Required Argument

Default Argument

Default value is '20'

### 34. Key-word Argument:- [KwArg]

\* The sequence of the Arrangement,

Ex:-  $(a=10, b=20, c=30)$   
Keywords Argument's

### 35. Recursion :-

\* Recursion is a calling function in same function

### 36. Python tool that Help to find Bug's?

\* Yes, We can use "PYLINT"

### 37. method vs constructor in Python

\* method is used to exhibit functionality of an object.

\* constructor is used to initialize of an object.

38. How to capitalize the 1st letter of a string in Python?  
Ans:- Using `capitalize()`.

39. Program's modes in Python?

+ (1) immediate mode, (2) script mode  
↓ (not possible save prog)  
prog written in main window  
executed instantly this mode  
of writing is called immediate mode  
↑  
prog will be written in new window

40. object :- Any thing that is entered in a Python window is called an object, these objects are also called as literal's.

41. variable :- Variable are used to store data, and we can a variable certain memory will be allocated that variable.

42. Data types:-

- |                  |                   |
|------------------|-------------------|
| 1. Num Data type | 5. set Data type  |
| 2. string " "    | 6. Dictionary { } |
| 3. List [ ]      | 7. Byte [ ]       |
| 4. Tuple ()      | 8. Boolean " "    |

43. List Comprehension:

It is nothing but iterating the List using `for()` while looping.

44. What is an Array?

Ans:- Array is an container, which can hold a fix number of item's and this item's should be the same ~~size~~ type.

## File

45. How to open a file in Python?

```
f = open('demofile.txt', 'r')  
print(f.read())
```

46. How to open a file in Different Location?

```
f = open('D:\\myfiles\\welcome.txt', 'r')  
print(f.read())
```

47. How to close the file?

```
f = open('demofile.txt', 'r')  
print(f.read())  
f.close()
```

48. How to write on existing file (append content).

```
f = open('demofile.txt', 'a')  
f.write("Now the file has more content!")  
f.close()  
---
```

49. How to create a new file?

```
f = open('myfile.txt', 'x')
```

50. How to delete a file?

```
import os  
os.remove('demofile.txt')
```

### ① Dictionary

- 1, Dictionary is structure of Key & value pair
- 2, Dictionary created by placing element's in { }<sup>key, value pair</sup>, separated by commas ","

#### 3, The Indices of list

The keys of dictionary can be of any Data type

4. The order of the element's entered are maintained

### set

### ② List

- 1, List is a collection of Index value

- 2, List is created by placing element's in [ ], separated by comma's ","

- 3, The indicates the list are integer's starting from "0"

- 4, There is no guarantee for maintaining order

### ③ set

- 1, sets are an un-order collection of element's

- 2, set's are mutable

- 3, it is defined under curly Braces { }

### Tuple

- 1, Tuple is also used Assign multiple element's to single variable (like list) (

- 2, Tuple is a immutable data type

- 3, It is Defined under parenthesis ).

- 4, Tuple can store any type of element

55, what is Difference B/w while loop & Do-while loops,

If It might occur statement's is executed zero times, if condition is false

do-while :- At least once the statement is executed

Ex:- user can enter positive number, in this case we will use do-while. (the loop run at least once.)

### 56, Types of inheritance

- 1, Single inheritance  
2, multiple inheritance  
3, multi-level inheritance

- 4, Hybrid inheritance.

- \* Inheritance is Process by which genetic information is passed on from parent to child.

57. Types of conversion in Python?  
two types:-  
1. Implicit type conversion.  
2. Explicit type conversion.

58. Conversion functions in Python?  
Ex:- `int()`, `float()`, `str()`, `list()`

59. What is Lambda function in Python?

Lambda function is a single line function, declared w/  
no name, which can have any number of Argument's, but it  
can only have one expression.

Ex:- `x = lambda a: a+10`  
`print(x(5))`

60. What is Doc-string in Python?

A Python Doc-string is a string used to document a Python  
module, class, function (or) method.

61. What is PEP-8?

Ans:- PEP 8 is a coding convention, which specifies a set of  
guidelines.

62. Explain How Python is an interpreted? (Same as Q8)  
Python is an interpreted program runs directly from  
the source code. It converts the source code into an  
intermediate language, which is again translated into  
machine language, that has to be executed.

63. what is self in python?

Ans:- self is a reference variable, which refers to the current object.

64. difference b/w deep copy & shallow copy in python?

- \* A Deep copy creates a new object & recursively add the copies of nested object's present in original element
- \* A shallow copy creates a new object, which stores the Reference of the original element

65. what is pickling and unpickling?

Q:- Pickling :- a converting an object in memory to byte stream that can stored on Disk(or) sent over network.

⇒ Unpickling :- unpickling is a loading a pickled file back into python programme.

66. Built in modules in Python?

\*os \*sys \*math \*random \*datetime \*json

67. what is class?

Ans:- Almost everything in python is an object ~~function~~ class or with it's properties & methods. A class like an object constructor or a "blueprint," for creating object and it's a logical Entity.

68. what is Interpreted language in Python?

Ans) Python is a Interpreted language, which means the source code of a Python program is converted into byte code, that is then executed by python virtual machine. (translate into a machine language)

## → string inbuilt functions

1. len() →  $\text{Hi}$  O/P → 2
2. title() →  $\text{hai.hello}$  O/P →  $\text{Hai, Hello}$
3. lower() →  $\text{Hello World}$  O/P →  $\text{'Hello World'}$
4. upper() →  $\text{hello garnham}$  O/P →  $\text{'HELLOW GARNHAM'}$
5. count() →  $\text{Hi, is, Hi, sir, Hi, mam}$  O/P →  $\text{Hi} = \underline{\underline{3}}$
6. find() →  $\text{Hi sir, Hi, Hi, Hi}$  O/P →  $\text{Hi} = \underline{\underline{7}}$
7. index() →  $\text{Hi sir, Hello}$  O/P →  $\text{Hi} \rightarrow \underline{\underline{0}}$   
(8 to 20)
8. End's with() →  $\text{Hi sir}$  O/P →  $\text{sir} \rightarrow \text{True}$
9. start's with() →  $\text{Hi Mam}$  O/P →  $\text{Hi} \rightarrow \text{True}$
10. isalnum() →  $\text{"Hi sir"}$  O/P →  $\text{Hi sir!} \rightarrow \text{False}$
11. islower() →  $\text{True}$  ( $\Rightarrow$ )  $\text{False}$
12. isupper() → " "
13. is space() → " "
14. is title() → " "
15. L.strip()
16. R.strip() → Space Remove
17. strip() →
18. Replace(?) →  $\text{"H#H"}$
19. join( ) -  $\text{Hi-sir (00)}$   $\text{Hi-sir}$
20. split( ) →  $\text{"India; is Great,"}$

Abstraction → Hiding Data

Encapsulation - Wrapping Data

Inheritance - Obtaining

Polyorphism - 1 or more for

Exception - Error msg

## List method Functions

1. len()
2. list()[ ]
3. append → add one value
4. insert( $\rightarrow (2, 25)$ )  
Place + value  
 $\boxed{[10, 20, 25, 30]}$   
 $\begin{matrix} & \downarrow \\ 0 & \downarrow & \downarrow & \downarrow \\ & 1 & 2 & 3 \end{matrix}$
5. count()
6. remove() → mention number ( $10, 20, 30$ )  
 $\begin{matrix} & \downarrow \\ 30 & \rightarrow \text{Delete} \\ 0 & \downarrow & \downarrow & \downarrow \\ & 1 & 2 & 3 \end{matrix}$
7. pop() → mention position ( $10, 20, 30, 40$ )  
 $\begin{matrix} & \downarrow \\ 40 & = 40 \rightarrow \text{Delete} \\ 0 & \downarrow & \downarrow & \downarrow \\ & 1 & 2 & 3 \end{matrix}$
8. reverse()
9. sort() → order Alphabets
10. sorted() → ordered numbers
11. min, max, sum()

→ Training :- Python

→ String slicing :-

$a = "gouthami" \Rightarrow a = "devathy"$   
 $b = a[0:4] \Rightarrow b = a[0:5:4]$   
print(b) print(b)

O/P  $\Rightarrow$  "govt"

O/P  $\Rightarrow$  [8, 5]

→ Swapping :- [small, large num]

$a = [8, 5, 3, 10, 92, 25, 27]$

print("the small num", min(a))  
print("the large num", max(a))

$var = [19, 20, 21, 25, 35, 48]$

$var[0], var[-1] = var[-1], var[0]$

print(var)

O/P  $\Rightarrow [48, 20, 21, 25, 35, 19]$

→ swap two numbers

$var = int(input())$  Input  $\Rightarrow 5$   
 $var1 = int(input())$

print("enter before swap", var)

print("enter before swap", var1)

$var, var1 = var1, var$

print("enter after swap", var)  
print("enter after swap", var1)

O/P  $\Rightarrow$  5  
5

→ Patterns sum's :-



i. for i in range(7): → Rows  
    for j in range(i+1): → column's  
        print("\*", end=" ") / print("j+1", end=" ")  
        print()  
    print()

O/P ⇒ \*

\*+

++

+++

+++=

\*\*\*\*\*

O/P ⇒ 1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

ii. for i in range(7): → Rows △

    for j in range(7-i): → space  
        print(" ", end=" ") O/P ⇒ \*

    for k in range(i+1): → column's \*\*\*  
        print("\*", end=" ") \*\*\*  
        print()

→ palindrome :-

name = str(input("Enter any string"))

rstx = name[::-1]

if name == rstx:

    print("palindrome")

else:

    print("it is not a palindrome")

→ factorial num:-

```
n = int(input(" "))

fact = 1

for i in range(1, n+1):
    fact = fact * i
    print(fact)
```

→ fibonacci sequence :-

n = int(input(" "))

a = 0

b = 1

for i in range(n):

c = a + b

a = b

b = c

print(c)

1 2 3 5 8  
0, 1, 2, 3, 5, 8

→ leap year :-

n = int(input(" "))

if n % 400 == 0:

if n % 100 == 0:

print("not a leap year")

elif n % 4 == 0:

print("leap year")

else:

print("not a leap year")

### → Area of Rectangle

width = float(input(" "))  
length = float(input(" "))

area = width \* length

perimeter = (width + length) \* 2

print(area)

print(perimeter) O/P ⇒

### → Area of triangle

b = float(input(" "))  $\therefore b = \text{base}$

h = float(input(" "))  $\therefore h = \text{height}$

a = 0.5 \* b \* h

print(area)

### → Invert List

Input ⇒ L [2, 3, 4, 6, 8, 9]

reverse = L[::-1]

print(reverse) O/P ⇒ [9, 8, 6, 4, 3, 2]

→ for (8) tip

order = int(input(" "))

tax = order \* 0.18

tip = order \* 0.17

total = order + tip + tax.

print(tax)

print(tip)

print(total)

.....

→ library charge

days = int(input(" "))

if days ≥ 1 & days ≤ 5:

a = Days \* 2

print("total charge", a)

elif days == 6 & days ≤ 10:

a = Days \* 3

print(" a")

.....

## 1. Tell me about self?

- ⇒ Sir: Good morning sir/madam
- 2. To maintain eye contact and smile.
  - 3. Firstly thank you for opportunity to give me.
  - 4. My name is Bandi Gowtham
  - 5. I am an Engineering Graduate from specializing in mechanical Engineering
  - 6. I Graduated from D.N.R Engg Tech at J.N.T.U.K.
  - 7. I Have good understanding of python
  - 8. I Have learned at magnet software in python course
  - 9. I Have good communication skills
  - 10. Our final year major project is power generation using two wheeler cylinder, we were a group of 5 members
  - 11. I am excited at the thought of the opportunity to apply my technical skill's and experience in your company
  - 12. I did my internship in rizag steel plant in R.S.R.S

## 2. Why should I hire you?

- 1. This is a wonderful opportunity for me
- 2. Your organization will surely prove to be an excellent platform for me to establish my skill's and knowledge in corporate world
- 3. Even though I am a fresher, I assure you that I will give my best of work to my full potential so that growth and welfare of this great board
- \* Share your knowledge
- \* carrier goal's
- \* Work Experience
- \* Skill's related to job

3. what are your strengths?

1. Hard working
2. Flexibility
3. Optimistic
4. Fast decision making
5. self motivated

4. → what are your weakness?

1. straight forward
2. more talkative
3. trust people very quickly
4. I can't say no where some ask for help

5. short term Goal :?

my short term goal is to get a job in required company.

→ Long term Goal :- long term goal is to be respectable position in that organization.

6. what is Diff b/w confidence & overconfidence?

\* only one word <sup>change</sup> can ~~the~~ Diff b/w confidence & overconfidence I can do this work is confidence.

\* overconfidence :- I only can do this work is overconfidence

(oo)

\* confidence :- I'm best person to hire for or company

\* overconfidence :- I'm only best person for or company

Hobbies

1. writing
2. learning
3. computer programming
4. travelling
5. listening music
6. playing outdoor game

7. Hard work & smart work?

\* Hard work - means work and then thinking.

\* Smart work - means thinking and then working.

8. Why do you want to work at our company?

→ Because it's great pleasure to work with your company. It will help me to explore my skills & prove my ability & also gain experience.

→ I think it will be a good platform to prove myself.

9. Can you work under pressure?

I always try to face challenge in my life so pressure doesn't matter. Working under pressure is the opportunity to know about my ability and gain confidence.

10. What motivates you to do a good job?

I want to see my parent's happy & I should be the reason behind that happiness.

11. What makes you angry?

When ever someone disturb me a lot & underestimate my capability, I get angry but try my best to control my anger with a smile & handle situation.

→ project :-

Awareness  
on environment

The recent years the scientific & public years

1. Here we are using an automobile for power producing vehicle.
2. Now days in Automobile field many new innovating concepts are being developed.
3. We are using the power from vehicle exhaust to generate the electricity, which can stored a battery for the latter consumption. in this project
4. Here we are placing a turbine in the path of exhaust in the cylinder.
5. An Engine is also placed in chassis of the vehicle.
6. The turbine is connected to the Dynamo, which is used to generate power.
7. Depending upon the air flow the turbine will start rotating and then the Dynamo will start Rotating.
8. A dynamo is a device, which is used to convert the kinetic energy into electrical Energy.
9. The generate power is stored to the Battery.
10. The Battery Power can be consumed for the user's comfort.