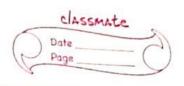
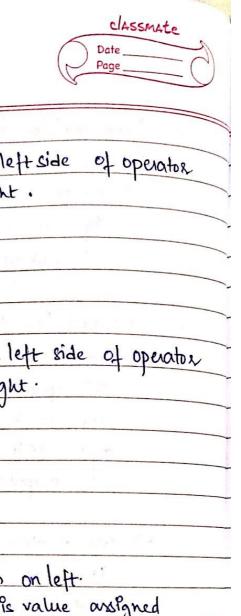
1.	What are the data types in python? Explain
	Data types are classification or categorization of data.
	a. Numeric
	A numeric value is any representation of data
	which has a numeric value. Python identifies
	3 types of number: → Integer: Positive or negative whole number
	-> Float: Any real number with a floating
	point representation.
	point representation with a seal
	→ Complex number: A number with a real
	and imaginary component. for example: 2+3i
	for example: 2+31
	b. Boolean
	Data with one of 2 built in values True or
	False ·
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	c. String
	A string value is a collection of one or more
	characters put in single, double quotes.
	And the second of the second o
	d. List
	A let object is an oxdered collection of one of
	more data îtems which are mutable, not
	necessally same type, but should be put in square brackets.
	square brackets.
- 50	
	e. Tuple
	A Tuple object is an ordered collection of one os
	The object is an order collection of one ob

-	
	more data litems, not neccessarily some type, put
	in parentheris.
	Data îtems are îmmutable.
	f. Dictionary:
	A dictionary object is unordered collection
	of data In a key: value pair form.
	A collection of such pairs is enclosed in
	custy brackets.
	1 for Eg: 21: " Steve" 2: "Bill"3
	U
2.	Breifly Explain history of Python.
Ams	-> Python laid its foundation in late 1980s
	-> The implementation of Python was started in
****	December 1989 by Guido Van Rossom at
	CWI in Netherland!
	-> In February 1991, van Rossum published the
	code (labeled vession 0 9.0) to alt-source.
	-> In 1994, Python 1.0 was released with new
	features 18ke: lambon, map, fitter, and reduce.
	-> Python 2.0 added new features like: list
	comprehensions, garbage collection system.
	-> Un December 3, 2008, Python 3.0 was
	seleased. It was designed to rectify fundamental
	flow of language.
-	-> Python is influenced by following programming
	the state of the s
	· ABC language · Module - 3
Tall and the same of the same	The state of the s

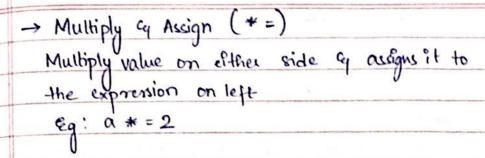
3.	Explain all the Operators in python.
Ans	Types of Operators
q.	Arithematic Operators
	→ Addition (+)
	A
	Eg: 3+4 # Addition blo 2 data members Output - 7
	-> Subtraction (-) - Subtracts the value on right
	Eg: 5-4 from one on left.
	output - 1
	→ Multiplication (*)
	Multiplies the values on either side of operator
	Eg >>> 3*4
	Eg >>> 3*4 Output - 12
	→ Diwision (1)
	Divides the value of left by one on right.
	Results in floating point value
	Eq 3/4
	Output - 0.75
	-> Modulus (°/0)
	Divides the left & right operand giving
	Xerrorage,
	Eg 4 0/02 Output → 0
	→ Exponential (**)
	Raises first member to power of second
	Eg 2**4
	eg 2**4 Output → 16



7	floor division (11) Divides and returns the integer value of quotient.
+	It dumps digits af dum after the decimal.
+	
+	Eg 10113 Output → 3
b.	Relational Operators
	→ Less than (<)
	This operator checks if the value on left of
	operator is lesser than the one on night.
	eg: 3<4 Output: Tome
	Output: Toue
	-> Greater than (>)
	It checks if value on left is greater than
	that one on the oright of operator.
	eg: 475
	Output: False -> Less than or equal to (<=)
-	It checks if the value of left of operator is
	less than or equal to that on right.
	Eg: 5<=10
	Output: True
	-> Greater than or equal to (>=)
	It checks if the value of left of operator is
	greater than or equal to that on night.
	eg: 5>=10
	Output: False



	DatePage
	→ Equal (==)
1	This checks if value on left side of operator
	is equal to one on right.
	Eq: 3==3
	Eg: 3==3 Output-True
	→ Not Equal (!=)
	This checks if value on left side of operator
£.	les not equal-to one on night.
	Eg: 3!=4
	Output - True
	2 Sup Y 1 Supplies
C·	Assignment Operator
	→ Assign (=)
- 4	Assign's value to expression on left.
	Eg a=7 # Here 7 is value assigned
	to a.
	Selal tores
	→ Add G Assign (+=)
	Adds value on either side and arrights it is
-	to the expression on left.
	$\alpha += 10$ is same as $\alpha = \alpha + 10$
	Application of the second of t
-	leg: a+=2,
-	-> Subtract & Assign (-=)
	Subtrack value on either eide and assigns it
	to expression on left
	Eq: a-=10



- → Divide & Assign (1=)

 Divides value on left by the one on right. Then it arrighes it to expression on left.

 Eq: a1=7
- → Modulus and Assign (%=)

 Perform modulus on values on either side and assignes it to left.

 Eg: a %=3
- → Exponent and Assign (** =)

 Perform exponentiation on the values on either side

 and then assigns 9+ to expression on left.

 Eq: a** = 5
- → Floor Divide and Assign (11=)

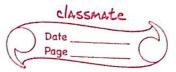
 Perform floor division on values on either side. Then assigns it to expression on left.

 Eg: a11=3
- d. Logical Operator

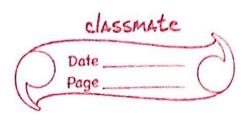
 If the conditions on both the sides of operator are

 true, then the whole expression is true.

Eq: a=777 of Dutput: False Out The expression is - the operator au Eq: B=777	ialse only i-	f both statement asound
Dutput: False > Or The expression is - the operator au	ialse only i-	f both statement asound
The expression is -	alse only i-	f both statement asound
The expression is -	ialse only i-	f both statement asound
The expression is -	alse only i-	f both statement asound
the operator au	take of	
6. 0-777		the wise, it is true
9. 0-7/7	02 27-1	11 1 2 11 1
Output: True		me de la desarra de la companya della companya della companya de la companya della companya dell
output Aust	1.0	E 10
→ not		ly
converts True to F	ialse and fa	Ise to True .
eg: a=not(o)	m - 200	Acres and and
print(a)	152	of the southern
		X rope of
	v. A	
Operator	Symbol	ways a construction
Binasy AND	&	bit by bit AND Operation
		on 2 values
		Gg: 283
	and explained t	Output: 2
Binary DR	10 100000	213
0	81.81	Output: 3
Binary XOR (1)	٨	2^3
U		Output: 1
Binary One's	~	~-3
Complement (~)		Output: 2
Binary Left Shift	44	2<<2 Dutputi \$
Binary Right Shift	>>	3772
	→ not converts True to f eg: a=not(o) print(a) Output: True Bituise Operator Operator Binary AND	→ not convert True to false and fa Eq: a=not(0) print(a) Output: True Bitwise Operator Operator Symbol Binary AND & Binary AND & Binary Sor (^) ^ Binary topic of the complement (~) Binary Left Shift <<<



4.	Explain the features of Python.
Ans	Features
	a. Easy to code: Python is highlevel programming language.
	It is very easy to code in python language and
	anybody can learn python.
	b. Free and Open Source: Python is freely available
	at official website. Since it is open source,
	this means that source code is also available to
	public.
	the first war and referred the season which is
	C. Object - Oriented Language:
	Python supports object oriented language and concepts
	of classes, object encapsulation etc.
	d. GIII Droggamming Giponat:
	d. Gui Programming Support: Garabical Users Patentage can be made using a module
	Graphical Useus Priterface can be made using a module such as PyQt5, PyQt4, wxPython oxTK in python
	such to 1990, 1990 t, 191101011
	e. High - Level language:
	Python is a high-level language, we do not need to
	remember the system architecture, now do we
	·
	need to manage memory.
	f. Extensible: We can write our python code c or c++
	language and we can compile that code 9n c
	ou c++ language
]. Postable: It is write once own anywhere program,
	Je and sade need had be
+	only any operating system and code need not be changed.



(
5.	1
	language.
Ans	Python is an interpreted language because python
	code is executed line by line at a time unlike
	Code 13 executed the by the
	other language c, c++, gava etc there is no
30] 1	need to compile python code this makes it easier
	to debug our code. The source code of python is
	converted into an immediate form called
	bytecode. It is also an integrated language
	because we can early integrated python
	because we can earily integrated python with other languages like c, c++.
	U
	The same of the sa