**ASSIGNMENT-1**

**(INTRODUCTION)**

1.What is variable? Write variable rules?

2.What are data types? How many data types are there in python? Write examples?

3.What is keyword? How to know how many keywords are there in current module?

4.What is Typecasting? Write an example to convert Complex to String?

5.What is list, set, tuple, dictionary and write examples for each?

6. Write differences between list and tuple?

7.Write differences between set and tuple?

8.Does duplicate keys are allowed in dictionary?

9.X=123, convert to string and find the len of the string.

10.x={1},y={‘A’:100,’B’:134} what is the difference between x and y?

**ASSIGNMENT-2**

**( OPERATORS)**

1.Which of the following is an assignment operator in python?

a.==

b.===

c.>>>

d.=

2.Which of the following is used to initialize multiple variables with a common value?

a. x=y:y=33

b. x=y=z=33

c. x=z;y=z;x=33

d.x&y&z=33

3.What will be the output after the following statements?

x=6

y=3

print(x/y)

1. 2.0
2. 2
3. 18
4. 18.0

4.What will be the output after the following statements?

X=8

Y=2

Print(x//y)

1. 4.0
2. 4
3. 16
4. 16.0

5.What will be the output after the following statements?

X=5

Y=4

Print(x%y)

a.0

b.20

c.1.0

d.1

6.What will be the output after the following statements?

X=5

Y=7

X\*=Y

Print(x)

a.7

b.12

c.5

d.35

7.What will be the output after the following statements?

X=30

Y=7

X%=Y

Print(x)

a.4

b.28

c.2

d.37

8.What will be the output after the following statements?

X=3

Y=7

Print(X=Y)

1. Y=7 and X=3
2. True
3. X=3 and Y=3
4. False

9.What will be the output after the following statements?

X=83

Y=57

Print(X>Y)

1. True
2. False
3. Yes
4. No

10.What will be the output after the following statements?

X=True

Y=False

Print(X or y)

1. True
2. False
3. Not defined
4. Xy

11.difference b/w relation and logical operators and what are they?

12.What is Ternary operator how to use it?

13.What are identity operators and how to use them?

14.How to add two numbers without using ’+’ operator?

15.How to subtract two numbers without using ‘-‘ operator?

**ASSIGNMENT-3**

1. a,b=10,a+30

Print(a,b)

2. a=20

b=30

a+=b

b=a//b

print(a,b)

3. a,b=10,2

Print(a&b)

Print(a||b)

Print(a^b)

Print(a<<b)

Print(a>>b)

Print(~a)

4. x=[1,2,5]

Print(x[:-1])

5.how to reverse the list without using reverse function (use slicing)

6.x=’python is good’ check ‘h’ is present or not in x?

7.difference between list, set, tuple?

8.how to find the address of variable?

9.what is range and write an example?

10.what are ternary and logical operators write an example?

**ASSIGNMENT-4**

**(CONDITIONAL STATEMENTS)**

1.x=[25,35,53,25,52,35,25] remove duplicate elements from the list?

2.write a program that weather number is exists or not in list

Ex: x=[1,5,7,9] n--> take from input(use input function) check n exists or not in x

Hint: step 1: use for or while loop.

Step 2: use if statement to check num exists or not

3.what is the output of below code?

If(1):

Print(‘hi’)

else:

print(‘hello’)

4.a=2

A=a<<2

If(a<10):

Print(‘python’)

else:

print(‘java’)

5.write a code for if, if-else, if-elif, nested if?

6.what will be the output after the following statements?

x=15

If x>15:

Print(0)

elif x==15:

print(1)

else:

print(2)

7.what will be the output after the following statements?

X=50

If x>10 and x<15:

Print(‘True’)

elif x>15 and x<25:

print(‘not True’)

elif x>25 and x<35:

print(‘false’)

else:

print(‘not false’)

8.what will be the output after the following statements?

X=70

If x<=30 or x>=100:

Print(‘True’)

elif x<=50 and x==50:

print(‘not True’)

elif x>=150 or x<=75:

print(‘false’)

else:

print(‘not false’)

9. what is the a value?

a=5

a=+5

if(0):

a=a+4

elif(a<10):

a=a>>2

print(a)

10.what will be the output after the following statements?

X=40

Y=25

If(x+y)>=100:

Print(‘True’)

elif x+y==50:

print(‘not true’)

elif x+y<=90:

print(‘false’)

else:

print(‘not false’)

**ASSIGNMENT-5**

**(LOOPS)**

1.write syntax for ‘for’ and write an example?

2.difference b/w while and for?

3.x=[1,2,4] access elements using index and without using index

Hint: using index-> range function in for

4.print even numbers b/w 1-10 numbers write single line code

5.x=[1,5,6,8,9,7] print all even numbers and odd numbers from list

6.wap to print 1-10 numbers by using while loop ?

7.What will be the output after the following statements?

x = 1

y = 4

while x \* y < 10:

print(y, end='')

x += 1

y += 1.

8.What will be the output after the following statements?

x, y = 2, 5

while y - x < 5:

print(x\*y, end=' ')

x += 3

y += 4

9.What will be the output after the following statements?

x = 'hello'

for i in x:

print(i, end='')

10.What will be the output after the following statements?

x = {'z:1', 'y:2', 'x:3'}

for i in x:

print(i, end=' ')

11.x = {'x':1, 'y':2, 'z':3}

for i, j in x.items():

print(i, j, end=' ')

12. x=[1,2,3] o/p :[10,20,30] use for or while loop.

13.print below pattern

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14.print below pattern

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15. print below pattern

x='python' take input from keyboard use input function

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**ASSIGNMENT-6**

**(STRING)**

1.find the length of string without using length function ?

2.x=1A2B3C o/p:123ABC

3.x=[1,0,0,1,0,1,0] o/p :0000111 in string format

4.x="hel$$lo#5#" o/p :hel$lo#5 remove only duplicates of special characters alone

5.print the maximum character which is occur in given string ex:HELLLOPQ o/p : maximum char in given string is L

6.x="hello python java is good" count the number of words in given string and print output in below format

o/p :hello5 python6 java4 is2 good4

7.x='Hello javA Is Good' ...please make each word of first and last letter if it is upper make lower if it is lower make upper

o/p: 'hellO Java iS gooD'

8.x='hello java' o/p : 'hello hello java java'

9.swap commas to dots and dots to commas

Input : 14, 625, 498.002

Output : 14.625.498, 002

10.x='12&&3AB$&+' o/p :&&$&+ print only special characters from string

**ASSIGNMENT-7**

**(LIST)**

1.x = [[0.0, 1.0, 2.0],[4.0, 5.0, 6.0]]

count how many zeros in list

2.x=[[1,2,3,4],[4,7,5,6]] swap first and last element in nested list

output :[[4,2,3,1],[6,7,5,4]]

3.x=list(range(11) print all even numbers use list comprehension

4.x=[1,2,3,4,5,6,7] print all prime numbers from list

o/p :[2,3,5,7]

5. x='ABCADA' print each character how many times its existed

o/p : A -3

B -1

C-1

D-1

6.how to remove element from list with example

7.how to compare two strings

8.find the longest palindrom string in list

x=['hi','madam',java,'mam','python','amma'] o/p:['madam' ]

9.x='python is good ' o/p: 'Java is good' don’t use replace function

**ASSIGNMENT-8**

**(DICTIONARY)**

1) what is dictionary and write all dictionary functions with example

2) x={'A':1,'B':'5'} o/p :{1:'A','5':'B'} interchange the keys and values

3) x= {'1':['a','b'], '2':['c','d']} Expected Output: ['ac','ad','bc','bd']

4)x='EMBEDDED' o/p : {'E':'3','M':1,'B':1,'D':3}

5) x={'A':3,'B':5,'C':4,'D':2,'E':1} Arrange keys and values as per ascending order of values

o/p : {'E':1,'D':2,'A':3,'C':4,'B':5}

6){'A': 'Red' , 'D': None 'B': 'Green', 'C': None} New Dictionary after dropping empty items

o/p :{'A': 'Red', 'B': 'Green'}

7) x={'A':123,'B':100} check key is exits or not in dic , key= take key from input use eval fun

8) x='Hello PYTHON who ARE YOU' o/p : {'H':'HELLO','P':'PYTHON','W':'WHO','A':'ARE','Y':'YOU'}

9){'C1': [10, 20, 30], 'C2': [20, 30, 40], 'C3': [12, 34]} reverse the list values in the dictionary:

{'C1': [30,20,10], 'C2': [40,30,20], 'C3': [34,12]}

10){1: 'red', 2: 'green', 3: 'black', 4: 'white', 5: 'black'}

Length of dictionary values: o/p : {'red': 3, 'green': 5, 'black': 5, 'white': 5}

**ASSIGNMENT-9**

**(FUNCTIONS)**

1 Write a fun sum of given numbers pass 1,2,3 n return result is 6

2 write a fun to print even and odd num in list -> pass list to fun x=list(range(1,11))->(1,10)

3 write a program for default args and return result

4 write a fun to print multiplication table # pass n from keyboard

5 write a function pass n of args and return list using variable len args

6 write a function pass keyword args nd return dict (a=10,b,20,c=30) -> {a:100,b:400,c:900}

7 write a function to fetch first word from list elements x=["PYTHION IS GOOd","JAVA IS GOOD"] # ["PYTHON","JAVA]

8 write a fun to change string lower to upper and upper to lower and return the string write fun to get only vowels from the list

9 x=["PYTHION IS GOOd","JAVA IS GOOD"] ->[I,O,I,O,O,A,A,I,O O] -> remove the duplicates -> ['I','O','A']

10 write a function get the max num from list without using predefined fun max x=[101,200,3000,400] #max : 3000

11 write a function to sort the list without using sort fun hint**:** we can use sorted fun

**ASSIGNMENT-10**

**(OOPS)**

1)what is class how to create a class write syntax and example?

2) what is self , init method what is the use ?

3) what is diff b/w init method nd instance method ?

4) diff b/w instance ,class, static method with example ?

5) what are inner functions and how to call the functions with example ?

6) what is lamda function write example for map, filter, reduce fun?

7) what are inner classes how to access the data from inner classes

8) create a class which willtake student name , age as a parameters print the student data in dic

o/P : student :{'Name :','PYTHON','Age':45}

9) create two different classes access the data from one class to another class without inheritance ?

10) how to find how many objects are created for the class ?

**ASSIGNMENT-11**

**(oops)**

1)what is inheritance ? how many types are there and example?

2) what is polymorphism write an example?

3) does function overloading is possible in python if no how many ways u can achieve function overloading ?

4)what is operator overloading write an example ?

5) what is function overriding write an example ?

6) what is abstract class write an example?

7) create a class that accepts 5 students data -> st1={'NAME':'NTR',ROLE\_NO:123} st2={'NAME':'ALLU',ROLE\_NO:133} st3={'NAME':'CHIRU',ROLE\_NO:143} ....st5

here names and roles should not be repeated , if we give same name or roles ,its should be allowed to add -> need to display msg : name/role no already exits please give another name/roles

8)what is ducktype polymorphism how to check particular method is exits or not in class ?

**9**) create a class that will accept the string and integer the string has to rotate anti clock wise based on integer val ex : x='python' a=int(input("Enter a val"))

output format : hint :try to use loops and slicing

a=1 string o/p :'ythonp'

a=2 string o/p :'thonpy'

a=3 string o/p : honpyt

10) Create a class that will accept the string extract the number from from string

and convert remaining string into asscci converted string

Ex:'A1B2c3'

output:

# Extracted number is 123

after extracting number string become : ABc

# Ascci converted string is :656699