ANSWERS ASSIGNMENT 1

TOPICS – STRING IN PYTHON

1)A Python Program To Accept A String From The Keyboard And Display It

Solution:

```
userInput = input("Enter the string")
print(userInput)
```

2) A Python Program To Accept Character As A String.

Solution:

```
userInput = input("Enter the valid character string")

if ('a' <= userInput <= 'z' ) or ('A' <= userInput <= 'Z'):
    print(userInput)
else:
    print("Entered input is not a valid character string")
    exit()
```

3) A Python Program To Accept A Single Character From The Keybord.

Solution:

```
userInput = input("Enter the string")
print("A single character from the string is {}".format(userInput[0]))
```

4) A Python Program To Accept An Integer From The Keybord.

Solution:

```
userInput = int(input("Enter the string"))
```

```
print(userInput)
print(userInput.__bool__())
```

5) A Python Program To Accept An Integer From The Keybord (By Another Method)

Solution:

```python
userInput = input("Enter the string")
if userInput.isnumeric():
    print("integer value is {}".format(userInput))
else:
    print("Invalid input")
```

6) A Python Program To Accept Float From A Keyboard.

Solution:

```python
userInput = float(input("Enter the string"))
print(userInput)
```

7) A Python Program To Accept Two Integer Numbers From The Keyboard.

Solution:

```python
userInput1 = int(input("Enter the 1st integer number"))
userInput2 = int(input("Enter the 2nd integer number"))
print("1st integer no is {}\n2nd integer number is {}".format(userInput1,userInput2))
```

8) A Python Program To Accept Two Numbers And Find Their Sum.

Solution:

```python
userInput1 = int(input("Enter the 1st integer number"))
```

```
userInput2 = int(input("Enter the 2nd integer number"))
sum = userInput1 + userInput2
print("sum of two numbers is {}".format(sum))
```

9) A Python Program To Find Sum And Product Of Two Numbers.

Solution:

```
userInput1 = int(input("Enter the 1st integer number"))
userInput2 = int(input("Enter the 2nd integer number"))

print("the sum and product of two no is \n sum={} \n product={}".format(userIn
put1 + userInput2,userInput1 * userInput2))
```

10) A Python Program To Accept 3 Integers In The Same Line And Display The Sum

Solution:

```
no1,no2,no3 = [int(r) for r in input("enter a three integer numbers by using
                      white spaces in between them").split()]

print("the sum odf three no = {}".format(no1 + no2 + no3))
```

11) A Python Program To Accept 3 Integers Separated By Commas And Display Their Sum.

Solution:

```
no1,no2,no3 = [int(r) for r in input("enter a three integer numbers by using
            comma(,) separator").split(',')]

print("the sum of three no = {}".format(no1 + no2 + no3))
```

12) Evaluating The Expression Entered From The Keyboard

Solution:

```python
expAns = eval(input("enter any mathematical expression"))
print(expAns)
datatype = type(expAns)
print(datatype)
```

13) A Python Program To Accept The List And Display It

Solution:

```python
acceptList = input("Enter a list  separated by space: ")
userList = acceptList.split()
print("user list is ", userList)
```

14) A Python Program To Accept The Tuple And Display It

Solution:

```python
Empty tuple
my_tuple = ()
print(my_tuple)  # Output: ()

# Tuple having integers
my_tuple = (1, 2, 3)
print(my_tuple)
# Output: (1, 2, 3)

# tuple with mixed datatypes
my_tuple = (1, "Hello", 3.4)
print(my_tuple)
# Output: (1, "Hello", 3.4)

# nested tuple
my_tuple = ("mouse", [8, 4, 6], (1, 2, 3))
print(my_tuple)
# Output: ("mouse", [8, 4, 6], (1, 2, 3))
```

15) A Python Program To Display The Command Line Arguments.

Solution:

```python
from sys import argv
argv = argv[1:]
for x in argv:
    print(x)

# The above code runs only on command line.
# We need to fire the below command given that the program is saved as pythonA
ss1.py
#           python  pythonAss1.py 1 2 3 4 5 tyy

output:E:\python\python programs\Assignment>py Assignment2.py 3 5 5 6 7
3
5
5
6
7


# The sys.argv takes the command line arguments in the form of a list.
# The first element in the list is the name of the file.
# The arguments always come in the form of a string even,
#if we type an integer in the argument list. We need to,
#use int() function to convert the string to integer.
#
```

16) A Python Program To Find The Sum Of Two Numbers Using The Command Line Arguments

Solution:

```python
# way 1:
from sys import argv
print("The Sum is ", int(argv[1])+ int(argv[2]))

Output:
E:\python\python programs\Assignment>py Assignment2.py 3 5
The Sum is  8
```

```
# # way 2:

from sys import argv
argv = argv[1:]
sum = 0
for x in argv:
    n = int(x)
    sum += n
print("The Sum is ", sum)

Output:
E:\python\python programs\Assignment>py Assignment2.py 3 5
The Sum is  8
```

17) A Python Program To Find The Sum Of Even Numbers Using The Command Line Arguments

Solution:

```
from sys import argv
argv = argv[1:]
sum = 0
for x in argv:
        n = int(x)
        if n % 2 == 0:
            sum += n
print("The Sum is ", sum)

Output:
E:\python\python programs\Assignment>py Assignment2.py 3 5 5 6 7 4 6 8
3
5
5
6
7
4
6
8
The Sum is  24
```

18) A python program to find to find the square of the given number.

Solution:

```python
number = int(input("Please enter the number.."))
square = number * number
print("Square of given Number is {}".format(square))

Output:
E:\python\python programs\Assignment>py Assignment2.py
Please enter the number..5
Square of given Number is: 25
```

19) Using the argument parser to find the square of the given number.

Solution:

20) A python program to add two numbers using argument parser.

21) A python program to find the power value of the number when it is raised to particular power.