

MODULE 3 – PYTHON ASSIGNMENT

1. List Operations.

```
list=[]
list.append(20)
list.append(22)
list.append(20)
print(list)

#insert an integer at specified position
list.insert(1,21)
print(list)

#print the list
print("List: ")
print(list)

#remove duplicate integers from list
print("\nList after removing duplicate element:")
list.remove(20)
print(list)

#insert an integer at the end of the list
list.append(23)
print("\nList after adding integer at last:")
print(list)

#sort the list
list.sort()
print("\nList in sorted order:")
print(list)

#pop the last element from the list
list.pop()
print("\nList after pop operation:")
print(list)

#reverse the list
list.reverse()
print("\nList in reversed order:")
print(list)
```

2. Write a calculator program in Python.

```
def add(P, Q):
    return P + Q
def subtract(P, Q):
    return P - Q
def multiply(P, Q):
    return P * Q
def divide(P, Q):
    return P / Q

li=['a','b','c','d']
a=1
while(a==1):
    print("\nCALCULATOR")
    choice = input("\nPress\na for addition\nb for subtraction\nc for multiplication\nd
for division\ne for exit\n")
    if choice == 'e':
        print("Exiting!!!")
        break
    if choice not in li:
        print("Please enter a valid choice")
        continue
    P = int (input ("Please enter the first number: "))
    Q = int (input ("Please enter the second number: "))
    if choice == 'a':
        print (P, " + ", Q, " = ", add(P, Q))

    elif choice == 'b':
        print (P, " - ", Q, " = ", subtract(P, Q))

    elif choice == 'c':
        print (P, " * ", Q, " = ", multiply(P, Q))
    elif choice == 'd':
        print (P, " / ", Q, " = ", divide(P, Q))
```

3. Write a program to concatenate, reverse and slice a string.

```
a="The programming language used is"
b="Python"
c=a+" "+b
print("Concatenation of two string:")
print(c)
```

#Reverse a string

```
print("\nReversed String:")
reversedString=c[::-1]
print(reversedString)

#Slice a string
print("\nSliced String:"+c[26:41])
```

4. Why is Python a popular programming language?

Python has many advantageous features that makes it as the popular language. One of the prime reasons is its universal applicability and compliance with data science. It is easy to learn, efficient, fast, flexible and reliable. Python's algorithms and syntax rules are reliable and fluently compliant with data analytics and also offers better web-development solutions. Most of the popular websites are built using python language. Thus, python is the number one programming and coding language across the world.

5. What are the other frameworks that can be used with Python?

Django, CherryPy, Pyramid, Grok, TurboGears, Web2Py, Flask, Bottle, Tornado, BlueBream and Quixote.

6. Full form of WSGI.

Web Server Gateway Interface