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Course: Programming in Python CBS1011

Q1 i. Write a Python program(i)To create a tuple with numbers and print all elements.

Code:

```
# Name: Anuj Parihar
# RegNo: 21BBS0162
tup = (1, 2, 3, 4, 5)

for i in tup:
    print(i)
```

Output:

```
bearj@DESKTOP-TLR5UN4 MINGW64 /d/PythonLabVIT/24th March (main)
$ python q1-a.py
1
2
3
4
5
```

ii. To add an element “hello” to the tuple.

Code:

```
# Name: Anuj Parihar
# RegNo: 21BBS0162
tup = (1, 2, 3, 4, 5)
tup = tup + ('hello',)
print(tup)
```

Output:

```
bearj@DESKTOP-TLR5UN4 MINGW64 /d/PythonLabVIT/24th March (main)
$ python q1-b.py
(1, 2, 3, 4, 5, 'hello')
```

Q2. Write a program calculate the product(multiplying all the numbers of a given tuple).

Input: (4, 3, 2, 2, -1, 18)

Output: -864

Code:

```
# Name: Anuj Parihar
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tup = tuple(map(int, input().split()))
f = 1
for i in tup:
    f = f*i

print(f)
```

Output:

```
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$ python q2.py
1 2 3 4 5
120
```

Q3 Write a program to calculate the average value of the numbers in a given tuple of tuples.

Input: ((10, 10, 10, 12), (30, 45, 56, 45), (81, 80, 39, 32), (1, 2, 3, 4))

Output: [30.5, 34.25, 27.0, 23.25]

Code:

```
# Name: Anuj Parihar
# RegNo: 21BBS0162
tup = ((1, 2, 3, 4, 5), (5,6,7,8,9), (11, 12, 13, 14, 15))
l = []
for i in tup:
    sum = 0
    for j in i:
        sum = sum + j
    l.append(sum/len(i))
print(l)
```

Output:

```
bearj@DESKTOP-TLR5UN4 MINGW64 /d/PythonLabVIT/24th March (main)
$ python q3.py
[3.0, 7.0, 13.0]
```

Q4. Write a Python program to replace last value of tuples in a list.

Input: [(10, 20, 40), (40, 50, 60), (70, 80, 90)]

Output: [(10, 20, 100), (40, 50, 100), (70, 80, 100)]

Code:

```
# Name: Anuj Parihar
# RegNo: 21BBS0162
l = [(1, 2, 3), (4, 5, 6), (7, 8, 9)]

for i in range(len(l)):
    l[i] = l[i][: -1] + (100,)

print (l)
```

Output:

```
bearj@DESKTOP-TLR5UN4 MINGW64 /d/PythonLabVIT/24th March (main)
$ python q4.py
[(1, 2, 100), (4, 5, 100), (7, 8, 100)]
```

Q5. Write a Python program to compute the sum of all the elements of each tuple stored inside a list of tuples.

Input: [(1, 2), (2, 3), (3, 4)]

Output: [3, 5, 7]

Code:

```
# Name: Anuj Parihar
# RegNo: 21BBS0162
li = [(1, 2, 3), (4, 5, 6), (7, 8, 9)]
sumOfTup = []
for i in range(len(li)):
    sum = 0
    for j in range(len(li[i])):
        sum = sum + li[i][j]
    sumOfTup.append(sum)

print(sumOfTup)
```

Output:

```
bearj@DESKTOP-TLR5UN4 MINGW64 /d/PythonLabVIT/24th March (main)
$ python q5.py
[6, 15, 24]
```