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**Subject: Modern Programming Language**

**Mid Term Assignment**

**Q1:** Print IQRA using 16-bit Unicode (Hint: Escape Character)

Hex values

I=0049

Q=0051

R=0052

A=0041

**Answer:**

```
print("\u0049\u0051\u0052\u0041")
```

**Q2:** Suppose you have a string “Iqra National University” stored in a variable a.

Write a program that

- Converts the string into a List
- Insert an Element “Peshawar” at the end
- Sort the list
- Prints Abbreviation of the first 3 Elements and the 4th Element complete each separated by a dot.

Output should be **I.N.U.Peshawar**

**Note:** You cannot use another variable

**Answer:**

```
a = 'Iqra Naional University'.split()
```

```
a.append("Peshawar")
```

```
a.sort()
```

```
print(a)
```

```
print(a[0][0]+"."+a[1][0]+"."+a[3][0]+"."+a[2])
```

**Q3:** Suppose You have a list a=[[4,5,9], [1,5,3], [0,8,12], [3,1,9]] Write a program that finds the list whose sum of elements is highest

**Answer:**

```
a = [[4,5,9], [1,5,3], [0,8,12], [3,1,9]]
print(max(a, key=sum))
```

**Q4:** Write a program that inputs a Student ID 5 times and determines how many Student ID's are valid. For the purpose of this question a valid Student ID is defined as follows:

- exactly 6 characters long
- begins with the uppercase characters 'INU'
- all characters beside the beginning 'INU' character must be numbers

**Answer:**

```
ids = []
for i in range(5):
    id = input("Enter ID:")
    ids.append(id)
valid = 0
for id in ids:
    if id[:3] == 'INU' and id[3:].isnumeric():
        valid += 1
print("There are", valid, "valid IDs")
```

**Q5:** Write a program that takes a string from the user and then print a new string by changing lowercase letters to uppercase letters and uppercase letters to lowercase letters. **[Hint: Import String Class]**

**Answer:**

```
import string
string = input("Enter String: ")
print(string.swapcase())
```