The University Of Mirpurkhas

PITP Class Work (01-10-2025)

1. Importing Modules

C.Q 1: Import the math module and calculate square root of a number.

```
# Program to import math module and use sqrt()
import math

num = 16
print("Square root of", num, "is:", math.sqrt(num))
```

C.Q 2: Import only a specific function from a module.

```
# Program to import only factorial function from math
from math import factorial

print("Factorial of 5 is:", factorial(5))
```

C.Q 3: Use the random module to generate a random number.

```
# Program to generate random number between 1 and 10
import random

num = random.randint(1, 10)
print("Random number is:", num)
```

2. Creating Custom Modules

Steps:

1. Create a new file called **mymodule.py**.
2. Add some functions inside it.
3. Import it into another file.

File 1: mymodule.py

```
# Custom module with two functions
def greet(name):
    return f"Hello, {name}!"

def add(a, b):
    return a + b
```

File 2: main.py

```
# Program to use custom module
import mymodule

print(mymodule.greet("Ali"))
print("Sum is:", mymodule.add(10, 20))
```

3. Understanding Python Package Structure

Steps:

1. Create a folder called **mypackage**.
2. Inside it, create a file __init__.py (can be empty or used for initialization).
3. Add another file, e.g., mathutils.py.

File: mypackage/mathutils.py

```
# Package module for math utilities
def square(n):
    return n * n

def cube(n):
    return n * n * n
```

File: main.py

```
# Program to use custom package
from mypackage import mathutils

print("Square of 4:", mathutils.square(4))
print("Cube of 3:", mathutils.cube(3))
```