PYTHON FUNCTION PRACTICE QUESTIONS WITH SOLUTIONS

Q1. Function with Default Arguments

Write a function greet(name, msg="Welcome") that prints a greeting.

Solution:

```
def greet(name, msg="Welcome"):
print(f"{msg}, {name}")
```

Q2. Function Returning Multiple Values

Write a function compute(n) that returns square and cube of n.

Solution:

```
def compute(n):
return n*n, n*n*n
```

Q3. Function with *args

Write a function average(*nums) that returns the average of numbers.

Solution:

```
def average(*nums):
return sum(nums) / len(nums)
```

Q4. Function with **kwargs

Write a function student_details(**info) that prints key-value pairs.

Solution:

```
def student_details(**info):
```

```
for k, v in info.items():
print(k, ":", v)
```

Q5. Lambda Function

Create lambda to compute sum of digits of a number.

Solution:

```
sum_digits = lambda n: sum(int(d) for d in str(n))
```

Q6. Recursion

Write recursive function sum_digits(n).

Solution:

```
def sum_digits(n):
if n == 0:
return 0
return n % 10 + sum_digits(n // 10)
```

Q7. Nested Functions

Write outer function that returns factorial using inner function.

Solution:

```
def outer(a):
def fact(n):
if n <= 1:
return 1
return n * fact(n-1)
return fact(a)
```
