Python Basic Programming Assignment - 5

Karan Shah

1. Write a Python Program to Find LCM?

```
def LCM(num1: int, num2: int) -> int:
  if num2 > num1:
    lcmof = LCM(num2, num1)
    return lcmof
  i = 1
  while True:
    current_multiple = num1 * i
    if current_multiple % num2 == 0:
      lcmof = current_multiple
      break
    i += 1
  return lcmof


# Driver's code
num1 = 7
num2 = 24
print(f"The LCM of {num1} and {num2} is {LCM(num1, num2)}")
```

```
The LCM of 7 and 24 is 168
```

2. Write a Python Program to Find HCF?

```
# Functions
def HCF(num1: int, num2: int) -> int:
  if num2 < num1:
    hcfof = HCF(num2, num1)
    return hcfof
  for i in range(num1, 0, -1):
    if num1 % i == 0 and num2 % i == 0:
      hcfof = i
      break
  return hcfof

# Driver's code
num1 = int(input("Enter the first number here: "))
num2 = int(input("Enter the second number here: "))
print(f"HCF of {num1} and {num2} is {HCF(num1, num2)}")
```

```
Enter the first number here: 60
Enter the second number here: 40
HCF of 60 and 40 is 20
```

3. Write a Python Program to Convert Decimal to Binary?

```
def decimaltobinary(num1: int) -> int:
    if num1 >= 1:
        decimaltobinary(num1 // 2)
    print(num1 % 2, end = '')

# Driver's code
num1 = int(input("Enter a number : "))
decimaltobinary(num1)
```

```
Enter a number : 10
01010
```

4. Write a Python Program To Find ASCII value of a character?

```
def asciivalue(char1 : str) -> int:
  return ord(char1)

# Driver's code
```

```
inp = input("Enter a character : ")
print(f"The ascii value of {inp} is {asciivalue(inp)}")
```

```
Enter a character : a
The ascii value of a is 97
```

5. Write a Python Program to Make a Simple Calculator with 4 basic mathematical operations?

```
def mathematicaloperations(num1: int, num2:int, operation:str):
  if operation not in ['+', '-', '/', '%', '*']:
    raise Exception('Invalid Input')
  else:
    if operation == '+':
      return num1 + num2
    elif operation == '-':
      return num1 - num2
    elif operation == '*':
      return num1 * num2
    elif operation == '/':
      return num1 / num2
  return num1 % num2

# Driver's code
num1 = 10
num2 = 20
operations = ['+', '-', '/', '%', '*']
for i in range(0, len(operations)):
  print(f"The {operations[i]} of {num1} and {num2} is {mathematicaloperations(num1, num2, operations[i])}")
```

```
The + of 10 and 20 is 30
The - of 10 and 20 is -10
The / of 10 and 20 is 0.5
The % of 10 and 20 is 10
The * of 10 and 20 is 200
```