TASK 1

Aim : Write a program to demonstrate different number data types in Python.

Program:

```
# Integer
int_num = 10
print("Integer value:", int_num)  # Output: Integer value: 10
print("Type of integer:", type(int_num))  # Output: Type of integer:
<class 'int'>

# Float
float_num = 10.5
print("\nFloat value:", float_num)  # Output: Float value: 10.5
print("Type of float:", type(float_num))  # Output: Type of float:
<class 'float'>

# Complex
complex_num = 2 + 3j
print("\nComplex number:", complex_num)  # Output: Complex number:
(2+3j)
print("Type of complex number:", type(complex_num))  # Output: Type of
complex number: <class 'complex'>

# Boolean
bool_value = True
print("\nBoolean value:", bool_value)  # Output: Boolean value: True
print("Type of boolean:", type(bool_value))  # Output: Type of boolean:
<class 'bool'>
```

Output:

```
Float value: 10.5
Type of float: <class 'float'>

Complex number: (2+3j)
Type of complex number: <class 'complex'>

Boolean value: True
Type of boolean: <class 'bool'>
```

TASK 2

Aim : Write a program to perform different Arithmetic Operations on numbers in
Python.

Program:

```
a = 15
b = 4

# Addition
add = a + b
print("Addition of", a, "and", b, "is:", add)  # Output: Addition of 15
and 4 is: 19

# Subtraction
subtract = a - b
print("Subtraction of", b, "from", a, "is:", subtract)  # Output:
Subtraction of 4 from 15 is: 11

# Multiplication
multiply = a * b
print("Multiplication of", a, "and", b, "is:", multiply)  # Output:
Multiplication of 15 and 4 is: 60

# Division (float)
divide = a / b
print("Division of", a, "by", b, "(float) is:", divide)  # Output:
Division of 15 by 4 (float) is: 3.75

# Division (floor)
floor_divide = a // b
print("Division of", a, "by", b, "(floor) is:", floor_divide)  # Output:
Division of 15 by 4 (floor) is: 3

# Modulus
modulus = a % b
print("Modulus of", a, "and", b, "is:", modulus)  # Output: Modulus of
15 and 4 is: 3

# Exponentiation
exponent = a ** b
print(a, "raised to the power", b, "is:", exponent)  # Output: 15
raised to the power 4 is: 50625
```

Output:

```
Addition of 15 and 4 is: 19
Subtraction of 4 from 15 is: 11
Multiplication of 15 and 4 is: 60
Division of 15 by 4 (float) is: 3.75
Division of 15 by 4 (floor) is: 3
Modulus of 15 and 4 is: 3
15 raised to the power 4 is: 50625
```

TASK 3

Aim : Write a program to create, concatenate and print a string and accessing sub-string

Program:

```
# 1. Single quotes
str1 = 'Hello'
print("String using single quotes:", str1)  # Output: String using
single quotes: Hello

# 2. Double quotes
str2 = "World"
print("String using double quotes:", str2)  # Output: String using
double quotes: World

# 3. Multi-line string using triple quotes
str3 = """This is a
multi-line string"""
print("String using triple quotes:", str3)
# Output:
# String using triple quotes: This is a
# multi-line string

# Concatenating strings
concat_str = str1 + " " + str2
print("\nConcatenated string:", concat_str)  # Output: Concatenated
string: Hello World

# Accessing sub-string (positive indexing)
sub_str_pos = concat_str[0:5]
print("Sub-string from the concatenated string (positive indexing):",
sub_str_pos)
# Output: Sub-string from the concatenated string (positive indexing):
Hello

# Accessing sub-string (negative indexing)
sub_str_neg = concat_str[-5:]
print("Sub-string from the concatenated string (negative indexing):",
sub_str_neg)
# Output: Sub-string from the concatenated string (negative indexing):
World
```

Output:

```
String using single quotes: Hello
String using double quotes: World
String using triple quotes: This is a
multi-line string

Concatenated string: Hello World
Sub-string from the concatenated string (positive indexing): Hello
Sub-string from the concatenated string (negative indexing): World
```

TASK 4

Aim: Write a python script to print the current date in the following format “Sun May 29 02:26:23 IST 2017”

Program:

```
import time
# Formatting date and time
formatted_time = time.strftime("%a %b %d %H:%M:%S %Z %Y")
print("Current date and time:", formatted_time)
# Output example: Current date and time: Thu Aug 29 07:43:33
India Standard Time 2024
```

Output:

```
Current date and time: Thu Aug 29 07:43:33 India Standard Time 2024
```