# Python coding Assignment Shubham Chauhan

Directions: All the answers will be written in word format in your own code, copied answers will provide you negative marking and rejection of assignment.

1. Python program to add two numbers.

**Ans:- a=7**

**b=3**

**print(a+b);**

1. Maximum of two numbers in Python.

**Ans:- num1 = float(input("Enter the first number: "))**

**num2 = float(input("Enter the second number: "))**

**if(num1 > num2):**

**print(num1, "is greater")**

**elif(num1 < num2):**

**print(num2, "is greater")**

**else:**

**print("Both are equal")**

1. Python Program for factorial of a number.  
   Ans**:- def fac\_of\_no(x):**

**i=1**

**fac\_of\_no=1**

**while i<=x:**

**fac\_of\_no\*=i**

**i+=1**

**print("factorial of ",x,"is ",fac\_of\_no)**

**x=int(input("Enter a number: "))**

**fac\_of\_no(x)**

1. Python Program for simple interest.

**Ans:- p=float(input("enter the initial principal balance"))**

**r=float(input("enter the annual interest rate"))**

**t=float(input("enter the time in years"))**

**S=p\*r\*t;**

**print("simple intrest of given data is ",S)**

1. Python Program for compound interest.

**Ans:- p = float(input("Enter the principle amount : "))**

**r = float(input("Enter the rate of interest : "))**

**t = float(input("Enter the time in the years: "))**

**ci = p \* (pow((1 + r / 100), t))**

**print("compound Interest : ", ci)**

1. Python Program to check Armstrong Number.  
   **Ans:- num = int(input("Enter a number: "))**

**sum = 0**

**temp = num**

**while temp > 0:**

**digit = temp % 10**

**sum += digit \*\* 3**

**temp //= 10**

**if num == sum:**

**print(num,"is an Armstrong number")**

**else:**

**print(num,"is not an Armstrong number")**

1. Python Program for Program to find area of a circle.  
   **Ans:- r=float(input("Enter the radius "))**

**A=22/7\*(r\*r)**

**print("Area of circle is", A)**

1. Python program to print all Prime numbers in an Interval.  
   **Ans:- start=int(input("Enter the elemet start from"))**

**end=int(input("Enter the elemet end on"))**

**for i in range(start, end+1):**

**if i > 1:**

**for j in range(2, i):**

**if(i % j == 0):**

**break**

**else:**

**print(i)**

1. Python program to check whether a number is Prime or not.  
   **Ans:- num= int(input("Enter lower range: "))**

**if num >1:**

**for i in range(2,num):**

**if (num % i) == 0:**

**print("it is not prime numbe")**

**break**

**else:**

**print("it is prime number")**

1. Python Program for n-th Fibonacci number.

**Ans:- def Fibonacci(n):**

**if n<= 0:**

**print("Incorrect input")**

**elif n == 1:**

**return 0**

**elif n == 2:**

**return 1**

**else:**

**return Fibonacci(n-1)+Fibonacci(n-2)**

**print(Fibonacci(10))**

1. Python Program for How to check if a given number is Fibonacci number?  
   Ans**:- n=int(input("Enter the number: "))**

**c=0**

**a=1**

**b=1**

**if n==0 or n==1:**

**print("Yes")**

**else:**

**while c<n:**

**c=a+b**

**b=a**

**a=c**

**if c==n:**

**print("Yes")**

**else:**

**print("No")**

1. Python Program for n\’th multiple of a number in Fibonacci Series.  
   **Ans:- def find(k, n):**

**f1 = 0**

**f2 = 1**

**i =2;**

**while i!=0:**

**f3 = f1 + f2;**

**f1 = f2;**

**f2 = f3;**

**if f2%k == 0:**

**return n\*i**

**i+=1**

**return**

**n = 5;**

**k = 4;**

1. Python Program for Sum of squares of first n natural numbers.  
   **Ans:- def sqsum(n) :**

**sm = 0**

**for i in range(1, n+1) :**

**sm = sm + pow(i,2)**

**return sm**

**n = 2**

**print(sqsum(n))**

1. Python Program for cube sum of first n natural numbers.  
   Ans:- **def sqsum(n) :**

**sm = 0**

**for i in range(1, n+1) :**

**sm = sm + pow(i,3)**

**return sm**

**n = 2**

**print(sqsum(n))**

1. Python | Multiply all numbers in the list.  
   **Ans:- def multiply(numbers):**

**total = 1**

**for x in numbers:**

**total \*= x**

**return total**

**print(multiply((8, 2, 3, -1, 7)))**

1. Python program to find smallest number in a list.

Ans:- **list1 = [10, 20, 1, 45, 99]**

**list1.sort()**

**print("Smallest element is:", list1[0])**

1. Python program to find largest number in a list.  
   Ans:- **list1 = [10, 20, 1, 45, 99]**

**list1.sort()**

**print("Smallest element is:", list1[-1])**

1. Python program to find second largest number in a list.

**Ans:- list1 = [10, 20, 1, 65, 99]**

**list1.sort()**

**print("Smallest element is:", list1[-2])**

1. Python program to find N largest elements from a list.  
   **Ans:-list1 = [10, 20, 1, 45, 99]**

**list1.sort()**

**print("Smallest element is:", list1[-1])**

1. Python program to print even numbers in a list.  
   **Ans:- list1 = [10, 21, 4, 45, 66, 93]**

**for num in list1:**

**if num % 2 == 0:**

**print(num)**

1. Python program to print odd numbers in a List.  
   **Ans:- list1 = [10, 21, 4, 45, 66, 93]**

**for num in list1:**

**if num % 2 != 0:**

**print(num)**

1. Python program to print all even numbers in a range.  
   **Ans:- start=int(input("enter the starting range"))**

**end=int(input("enter the end range"))**

**for num in range(start, end + 1):**

**if num % 2 == 0:**

**print(num)**

Python one word answer questions:

1. What module is required to use regular expressions?

**Ans:- Module for regular expressions = re**

1. How would you match for rat and cat in a regular expression?  
   **Ans:- r”[rc]at”**
2. How would you match for any words starting with c through f that end with the letters at?  
   **Ans:- r”[c-f]at”**
3. What is used to match any 1 character or space?  
   **Ans:- A string of characters enclosed in square brackets ( [] )**
4. What is used to match any whitespace? **Ans:- Whitespace character: \s**
5. What is used to match 1 or more characters?  
   **Ans:- A regular expression followed by a plus sign ( + )**
6. What regular expression would match for both cat and cats?

**Ans:- r”[c-f]at”**

1. What Regex matches everything in this string "Match everything up to @" up to but not including the @?  
   **Ans:- r”^[^@]\*”**