Python Lab Assignment - Questions with Answers

# Program 1: Check Even or Odd

Python Program:

num = int(input('Enter a number: '))  
if num % 2 == 0:  
 print('Even')  
else:  
 print('Odd')

# Program 2: Largest of Three Numbers

Python Program:

a, b, c = map(int, input('Enter three numbers: ').split())  
print('Largest is', max(a, b, c))

# Program 3: Grade Calculation

Python Program:

marks = int(input('Enter marks: '))  
if marks >= 90:  
 grade = 'A'  
elif marks >= 75:  
 grade = 'B'  
elif marks >= 50:  
 grade = 'C'  
else:  
 grade = 'F'  
print('Grade:', grade)

# Program 4: Leap Year Check

Python Program:

year = int(input('Enter year: '))  
if (year % 400 == 0) or (year % 4 == 0 and year % 100 != 0):  
 print('Leap Year')  
else:  
 print('Not Leap Year')

# Program 5: Check Positive, Negative, or Zero

Python Program:

num = int(input('Enter a number: '))  
if num > 0:  
 print('Positive')  
elif num < 0:  
 print('Negative')  
else:  
 print('Zero')

# Program 6: Sum of First N Natural Numbers

Python Program:

n = int(input('Enter N: '))  
print('Sum =', n\*(n+1)//2)

# Program 7: Multiplication Table

Python Program:

num = int(input('Enter number: '))  
for i in range(1, 11):  
 print(num, 'x', i, '=', num\*i)

# Program 8: Factorial of a Number

Python Program:

n = int(input('Enter number: '))  
fact = 1  
for i in range(1, n+1):  
 fact \*= i  
print('Factorial =', fact)

# Program 9: Reverse a Number

Python Program:

num = int(input('Enter number: '))  
rev = 0  
temp = num  
while temp > 0:  
 rev = rev\*10 + temp%10  
 temp //= 10  
print('Reversed =', rev)

# Program 10: Fibonacci Series

Python Program:

n = int(input('Enter N: '))  
a, b = 0, 1  
for i in range(n):  
 print(a, end=' ')  
 a, b = b, a+b

# Program 11: Check Prime Number

Python Program:

num = int(input('Enter number: '))  
if num > 1:  
 for i in range(2, int(num\*\*0.5)+1):  
 if num % i == 0:  
 print('Not Prime')  
 break  
 else:  
 print('Prime')  
else:  
 print('Not Prime')

# Program 12: Check Vowel or Consonant

Python Program:

ch = input('Enter a character: ').lower()  
if ch in 'aeiou':  
 print('Vowel')  
else:  
 print('Consonant')

# Program 13: Check Palindrome Number

Python Program:

num = int(input('Enter number: '))  
if str(num) == str(num)[::-1]:  
 print('Palindrome')  
else:  
 print('Not Palindrome')

# Program 14: Check Armstrong Number

Python Program:

num = int(input('Enter number: '))  
s = sum(int(d)\*\*3 for d in str(num))  
if s == num:  
 print('Armstrong')  
else:  
 print('Not Armstrong')

# Program 15: Check Eligibility to Vote

Python Program:

age = int(input('Enter age: '))  
if age >= 18:  
 print('Eligible to vote')  
else:  
 print('Not eligible')

# Program 16: Find Factors of a Number

Python Program:

num = int(input('Enter number: '))  
for i in range(1, num+1):  
 if num % i == 0:  
 print(i, end=' ')

# Program 17: Sum of Digits of a Number

Python Program:

num = int(input('Enter number: '))  
s = sum(int(d) for d in str(num))  
print('Sum of digits =', s)

# Program 18: Count Digits in a Number

Python Program:

num = int(input('Enter number: '))  
print('Digits count =', len(str(num)))

# Program 19: Print All Prime Numbers (1 to N)

Python Program:

n = int(input('Enter N: '))  
for num in range(2, n+1):  
 for i in range(2, int(num\*\*0.5)+1):  
 if num % i == 0:  
 break  
 else:  
 print(num, end=' ')

# Program 20: Pattern Printing

Python Program:

n = int(input('Enter rows: '))  
for i in range(1, n+1):  
 print('\*' \* i)