Assignment 8.1

1. Write a program to calculate the electricity bill (accept number of unit from user) according to the following criteria : Unit Price First 100 units no charge Next 100 units Rs 5 per unit After 200 units Rs 10 per unit (For example if input unit is 350 than total bill amount is Rs2000)

def cal\_electric\_bil(unit):

if(unit <=100):

print("No charges")

elif(unit <=200):

print("bill=",(unit-100)\*5)

else:

print("bill=",((unit-200)\*10)+500)

cal\_electric\_bil(100)

cal\_electric\_bil(150)

cal\_electric\_bil(350)

**OUTPUT:**

No charges

bill= 250

bill= 2000

1. Write a program to check whether the last digit of a number( entered by user ) is divisible by 3 or not. Q3. Write a program to display "Hello" if a number entered by user is a multiple of five , otherwise print "Bye".

def is\_div(x):

num=x%10

if(num%3==0):

return True

return False

n=int(input("Enter a number"))

if is\_div(n):

print("Divisible")

else:

print("Not divisible")

**OUTPUT:**

Enter a number50

Divisible

1. Write a program to display "Hello" if a number entered by user is a multiple of five , otherwise print "Bye".

def div\_by(n):

if(n%5==0):

return "Hello"

return "Bye"

n=int(input("Enter a number"))

print(div\_by(n))

**OUTPUT:**

Enter a number54

Bye

1. A company decided to give bonus to employee according to following criteria: Time period of Service Bonus More than 10 years 10% >=6 and <=10 8% Less than 6 years 5% Ask user for their salary and years of service and print the net bonus amount.

def bonus\_cal(sal,exp):

if(exp >10):

return sal+(sal\*0.1)

elif(exp >=6):

return sal+(sal\*0.8)

else:

return sal+(sal\*0.5)

print("bonus sal of emp 1 is",bonus\_cal(25000,2))

print("bonus sal of emp 2 is",bonus\_cal(55000,10))

print("bonus sal of emp 3 is",bonus\_cal(55000,6))

print("bonus sal of emp 4 is",bonus\_cal(25000,7))

**OUTPUT:**

bonus sal of emp 1 is 37500.0

bonus sal of emp 2 is 99000.0

bonus sal of emp 3 is 99000.0

bonus sal of emp 4 is 45000.0

1. Write a program to display all prime numbers within a range

def is\_prime(x):

for i in range(2,x-1):

if x%i==0:

return False

return True

def prime\_in\_range(x,y):

for i in range(x,y):

if(is\_prime(i)):

print(i,end=" ")

prime\_in\_range(10,100)

**OUTPUT:**

11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97

1. Write a python program that takes a number. 1. If the number is divisible by 3, it should return “Fizz”. 2. If it is divisible by 5, it should return “Buzz”. 3. If it is divisible by both 3 and 5, it should return “FizzBuzz”. 4. Otherwise, it should return the same number.

def fun(x):

if x % 5==0 and x%3 ==0:

return "FizzBuz"

elif x% 5==0:

return "Buzz"

elif x%3==0:

return "Fizz"

else:

return x

print(fun(10))

print(fun(51))

print(fun(15))

print(fun(77))

**OUTPUT:**

Buzz

Fizz

FizzBuz

77

1. Write a program for checking the speed of drivers. This function should have one parameter: speed. 1. If speed is less than 70, it should print “Ok”. 2. Otherwise, for every 5km above the speed limit (70), it should give the driver one demerit point and print the total number of demerit points. For example, if the speed is 80, it should print: “Points: 2”. 3. If the driver gets more than 12 points, the function should print: “License suspended”

def speed\_check(speed):

if(speed < 70):

print("OK")

return

speed-=70

point=speed/5;

if(point < 12):

print("points: ",point)

else:

print("License suspended")

speed\_check(60)

speed\_check(100)

speed\_check(600)

**OUTPUT:**

OK

points: 6.0

License suspended