ASSIGNMENT-3

*Question:*

PYTHONCODEFORBLINKINGLEDANDTRAFFICLIGHTSFORRASPBERRYPI.

# Solution:

***ForLED:***

importRPi.GPIOasGPIO #ImportRaspberryPiGPIOlibrary

fromtimeimportsleep #Importsleepfunctionfromthetimemodule

GPIO.setwarnings(False) #Ignorewarningfornow

GPIO.setmode(GPIO.BOARD) #UsephysicalpinnumberingGPIO.setup(8,GPIO.OUT,initial=GPIO.LOW)#Set pin 8 to be an output pin and set initial valuetolow(off)whileTrue: #Run foreverGPIO.output(8,GPIO.HIGH) #Turn

onsleep(1) #Sleepfor

1second

GPIO.output(8,GPIO.LOW) #Turnoffsleep(1) #Sleepfor

1second

# ForTrafficLights:

importRpi.GPIOasGPIOimport time

importsignalimport sys#Setup

GPIO.setmode(GPIO.BCM)GPIO.setup(9,GPIO.OUT)GPIO.setup(10,GPIO.OUT)GPIO.setup(11,GPIO.OUT)

#Turn off all lights when user endsdemodefallLightsOff(signal,framer):GPIO.output(9,False)GPIO.output(10,False)GPIO.output(11,False)GPIO.cleanup()

sys.exit(0)signal.signal(signal.SIGINT,allLightsOff)

#Loopforeverwhile True:#Red

GPIO.output(9,True)

Time.sleep(3)#Redandamber

GPIO.output(10,True)Time.sleep(1)

#GreenGPIO.output(9,False)GPIO.output(10,False)GPIO.output(11,True)Time.sleep(5)#AmberGPIO.output(11,False)GPIO.output(10,True)Time.sleep(2)

#Amber off(red comes on at top of loop)GPIO.output(10,False)