ASSIGNMENT – 3

Python programming

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| Assignment Date |  |
| Student name | Stella.R |
| Student roll number | 212019106019 |
| Maximum marks | 2 |

QUESTION: Write python code for blinking LED and traffic lights for Raspberry pi.

CODE: FOR LED

import WiringPi2 aswiringpi

importtime

# initialize

wiringpi.wiringPiSetup()

# define GPIO mode

GPIO18 =1

GPIO23 =4

GPIO24 =5

LOW =0

HIGH =1

OUTPUT =1

wiringpi.pinMode(GPIO18, OUTPUT)

wiringpi.pinMode(GPIO23, OUTPUT)

wiringpi.pinMode(GPIO24, OUTPUT)

# make all LEDs off

*def*clear\_all():

    wiringpi.digitalWrite(GPIO18, LOW)

    wiringpi.digitalWrite(GPIO23, LOW)

    wiringpi.digitalWrite(GPIO24, LOW)

# turn on LED sequentially

try:

    while1:

        clear\_all()

        print("turn on LED 1")

        wiringpi.digitalWrite(GPIO18, HIGH)

        time.sleep(2)

        clear\_all()

        print("turn on LED 2")

        wiringpi.digitalWrite(GPIO23, HIGH)

        time.sleep(2)

        clear\_all()

        print("turn on LED 3")

        wiringpi.digitalWrite(GPIO24, HIGH)

        time.sleep(2)

exceptKeyboardInterrupt:

    clear\_all()

print("done")

CODE: TRAFFIC LIGHT

from  gpiozeroimportLED

fromtimeimportsleep

red=LED(22)

amber=LED(27)

green=LED(17)

whileTrue:

 red.on()

 sleep(1)

 amber.on()

 sleep(1)

 green.on()

 sleep(1)

 red.off()

 sleep(1)

 amber.off()

 sleep(1)

 green.off()