

ASSIGNMENT-3

Date	19-10-2022
Team ID	PNT2022TMID02589
Project Name	Smart Farmer – IOT Enabled Smart Farming Application
Maximum Marks	2 Marks

NAME: ABINAYA E

TOPIC: Write python code for blinking LED and Traffic lights for Raspberry pi.

CODE:

1)PYTHON CODE FOR BLINKING LED

```
import RPi.GPIO as GPIO # Import Raspberry Pi GPIO library from
time import sleep # Import the sleep function from the time module
GPIO.setwarnings(False) # Ignore warning for now
GPIO.setmode(GPIO.BOARD) # Use physical pin numbering
GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW) # Set pin 8 to be an output
pin and set initial value to low
(off)
while True: # Run forever
```

```
GPIO.output(8, GPIO.HIGH) # Turn on
```

```
sleep(1) # Sleep for 1 second
```

2) PYTHON CODE FOR TRAFFIC LIGHT

```
GPIO.output(8, GPIO.LOW) # Turn off
```

```
Sleep (1) # Sleep for 1 second
```

```
import RPi.GPIO as GPIO
```

```
import time

import signal

import 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 ends
demo def allLightsOff(signal, frame):

    GPIO.output(9, False)

    GPIO.output(10, False)

    GPIO.output(11, False)

    GPIO.cleanup()

    sys.exit(0)

    signal.signal(signal.SIGINT, allLightsOff)


# Loop forever

while True:

    # Red

    GPIO.output(9, True)

    time.sleep(3)

    # Red and amber

    GPIO.output(10, True)

    time.sleep(1)
```

```
# Green
```

```
GPIO.output(9, False)
```

```
GPIO.output(10, False)
```

```
GPIO.output(11, True)
```

```
time.sleep(5)
```

```
# Amber
```

```
GPIO.output(11, False)
```

```
GPIO.output(10, True)
```

```
time.sleep(2)
```

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

