**Assignment -3**

**Python Programming**

|  |  |
| --- | --- |
| **Assignment Date** | **14 October 2022** |
| **Student Name** | **SURENDHAR. S** |
| **Student Roll Number** | **6113191043807** |

**Question-1:**

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

|  |
| --- |
| **Solution:** |
| **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 its end**  **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 for led light**  **while True:**  **# RED LIGHT**  **GPIO.output(9, True)**  **time.sleep(3)**  **# RED AND YELLOW**  **GPIO.output(10, True)**  **time.sleep(1)**    **# GREEN LIGHT**  **GPIO.output(9, False)**  **GPIO.output(10, False)**  **GPIO.output(11, True)**  **time.sleep(5)**    **# YELLOW LIGHT**  **GPIO.output(11, False)**  **GPIO.output(10, True)**  **time.sleep(2)**    **#YELLOW OFF (red start from first loop)**  **GPIO.output(10, False)** |
|  |