Student Name:M.Niffa meriya
Reg no:950819106050

Question-1:

Write a python code for blinking LED for Raspberry pi.

```
#!/usr/bin/env python
import RPi.GPIO as GPIO # RPi.GPIO can be referred as GPIO from now
import time
ledPin = 22 # pin22
def setup():
GPIO.setmode(GPIO.BOARD) # GPIO Numbering of Pins
GPIO.setup(ledPin, GPIO.OUT) # Set ledPin as output
GPIO.output(ledPin, GPIO.LOW) # Set ledPin to LOW to turn Off
the LED
def loop():
while True:
print 'LED on'
GPIO.output(ledPin, GPIO.HIGH) # LED On
time.sleep(1.0 ) # wait 1 sec
print 'LED off'
GPIO.output(ledPin, GPIO.LOW) # LED Off
time.sleep(1.0) # wait 1 sec
def endprogram():
GPIO.output(ledPin, GPIO.LOW) # LED Off
GPIO.cleanup() # Release resources
if_name_=='_main_': # Program starts from here
setup()
try:
loop()
except KeyboardInterrupt: # When 'Ctrl+C' is pressed, the destroy()
will be executed.
endprogram()
```

Question-2:

Write a python code for Traffic lights for Raspberry pi.

```
#!/usr/bin/python3.4
import RPi.GPIO as GPIO
import time
GPIO.setmode(GPIO.BCM)
GPIO.setwarnings(False)
GPIO.setup(4, GPIO.IN, pull_up_down = GPIO.PUD_DOWN) # Button
GPIO.setup(17, GPIO.OUT, initial = GPIO.HIGH) # RED
GPIO.setup(27, GPIO.OUT, initial = GPIO.HIGH) # YELLOW
GPIO.setup(18, GPIO.OUT, initial = GPIO.HIGH) # GREEN
GPIO.setup(22, GPIO.OUT, initial = GPIO.LOW) # Buzzer
x = 1 # Variable to control traffic light system
try:
```

```
while True:
if(GPIO.input(4) == True):
while(x == 1):
GPIO.output(17, GPIO.LOW)
GPIO.output(22, GPIO.HIGH)
time.sleep(2)
GPIO.output(22, GPIO.LOW)
GPIO.output(27, GPIO.LOW)
time.sleep(3)
GPIO.output(17, GPIO.HIGH)
GPIO.output(27,GPIO.HIGH)
GPIO.output(18, GPIO.LOW)
time.sleep(5)
GPIO.output(18, GPIO.HIGH)
time.sleep(2)
except Exception as ex:
print(“error occured”,ex)
finally:
GPIO.cleanup()
```