

ASSIGNMENT 3

PYTHON PROGRAMMING

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Question1:

Write a python code for blinking LED using Raspberry pi.

Program Code:

```
Import RPi.GPIO as GPIO  
GPIO.setmode(GPIO.BOARD)  
GPIO.setup(3,GPIO.OUTPUT  
GPIO.output(3, True)
```

Output:

The screenshot displays a web-based development environment. On the left, a code editor shows a Python script named `blinking led.py` with the following code:

```
1 import RPi.GPIO as GPIO
2 GPIO.setmode(GPIO.BOARD)
3 GPIO.setup(3, GPIO.OUT)
4 GPIO.output(3, True)
5
```

On the right, a window titled `mycode.py` displays a diagram of the Raspberry Pi GPIO connectors. The diagram is titled "RPi GPIO connectors:" and shows two rows of pins with their respective functions and pin numbers.

Pin	Function	Pin	Function
2	5V Power	26	B C M 7
4	5V Power	28	B C M 1
6	Ground	30	Ground
8	B C M 14	32	B C M 12
10	B C M 15	34	Ground
12	B C M 16	36	B C M 16
14	Ground	38	B C M 20
16	B C M 23	40	B C M 21
18	B C M 24		
20	Ground		
22	B C M 25		
24	B C M 26		
26	B C M 27		
28	B C M 28		
30	Ground		
32	B C M 29		
34	Ground		
36	B C M 30		
38	B C M 31		
40	B C M 32		

Below the diagram, there is a terminal window with the prompt `>_REPL`.

The bottom of the image shows a taskbar with several tabs: "Create with code.html", "Create with code.html", "Create with code.html Canceled", "blinking code.html", and "blinking code.html".

Question2:

Write a python code for Traffic Lights using Raspberrry pi.

Program Code:

```
from gpiozero import LED
```

```
from time import sleep
```

```
green=LED(8)
```

```
blue=LED(13)
```

```
red=LED(12)
```

```
while True:
```

```
    green.off()
```

```
    red.off()
```

```
    blue.off()
```

```
    sleep(1)
```

```
    green.on()
```

```
    sleep(1)
```

```
    red.off()
```

```
    blue.on()
```

```
    sleep(1)
```

Output:

