Name → Hamza

ID → 13042

SUB → Microcontroller

D/P → Electrical

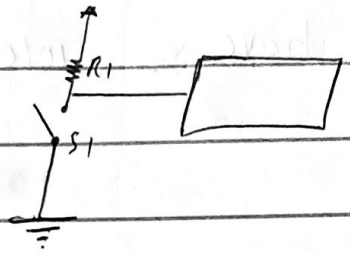
Date → 26-08-2020.

Q2:-

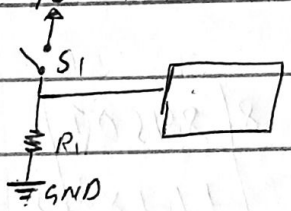
(A) Answer:

Pull up Resistor:

Pull up Resistor used in logic circuits to ensure a well defined logical level at a pin under all condition.



(B) Answer: Pull down:- pull down used for they pull the pin to low value.



(C) Answer:

The 8051 has two timers T0 and T1.

(d) Answer: There are four I/O ports which are designed as P0, P1, P2 and P3.

(e) Answer: Microprocessor consists of only a central processing unit, whereas Micro controller contains a Central Processing

Unit, Memory, Input/output and all integrated into one chip.

Microprocessor have RAM, ROM and other peripherals.

Microcontroller have internal controlling bus.

(Q1 B Part)

(a) $(89501)_{10} = ?_8$

Solution:

8	89501	
8	11187	5
8	1398	3
8	174	6
8	21	6
	2	5

$89501_{10} = (256635)_8$ Answer.

(b) $(64101)_{10} = ?_2$

Solution:

(3)

2	64101
	32050 - 1
	16025 - 0
	8012 - 1
	4006 - 0
	2003 - 0
	1001 - 1
	500 - 1
	250 - 0
	125 - 0
	62 - 1
	31 - 0
	15 - 1
	7 - 1
	3 - 1
	1 - 1

$(64101)_{10} = (1111\,0100\,1100\,101)_2$ Answer

(c) $(9AB3)_{16} = ?_2$

Solution: A = 10, B = 11,

$(9\,10\,11\,3)_{16}$

2	9
2	4 - 1
2	2 - 0
	1 - 0

2	10
	5 - 0
	2 - 1
	1 - 0

2	11
2	5 - 1
2	4 - 1
2	2 - 0
	1 - 0

2	3
2	1 - 1
	0

(4)

$(91013)_{16} = (1001\,0100\,0001\,0011)_2$ Answer

(d) $(1110\,0100\,1001\,11)_2 = {}^{?}8$

Solution: We have →

(1110 0100 1001 11)

(111) 7

000 = 0
001 = 1
010 = 2
011 = 3
100 = 4
101 = 5
110 = 6
111 = 7

(001 110 100 100 111)$_2$

$(1110\,0100\,1001\,11)_2 = (16447)_8$ Ans

(e) $(1011\,0000\,1101\,1)_2 = {}^{?}16$

Solution, We have

0000 = 0
0001 = 1
0010 = 2
0011 = 3
0100 = 4
0101 = 5
0110 = 6
0111 = 7
1000 = 8
1001 = 9
1010
1011
1100
1101
1110
1111

P. T. O

(5)

0000 = 0

0001 = 1

0010 = 2

0011 = 3

0100 = 4

0101 = 5

0110 = 6

0111 = 7

1000 = 8

1001 = 9

1010 = A = 10

1011 = B = 11

1111 = C = 12

1101 = D = 13

1110 = E = 14

1111 = F = 15

$(0001\ 0110\ 0001\ 1011)_2 = ?_{16}$

1 6 1 11

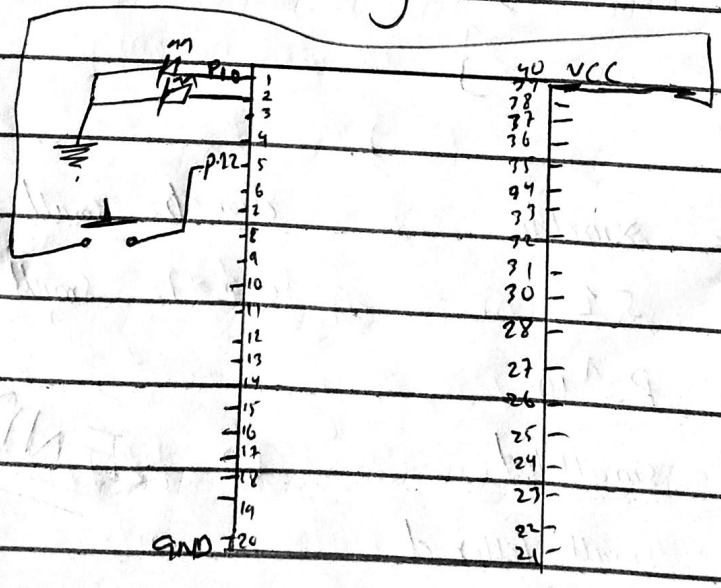
1 6 1 B

$(161B)_2$.

$(1\ 0110\ 0001\ 1011)_2 = (161B)_2$ Ans

Q2:: Answer: (a)

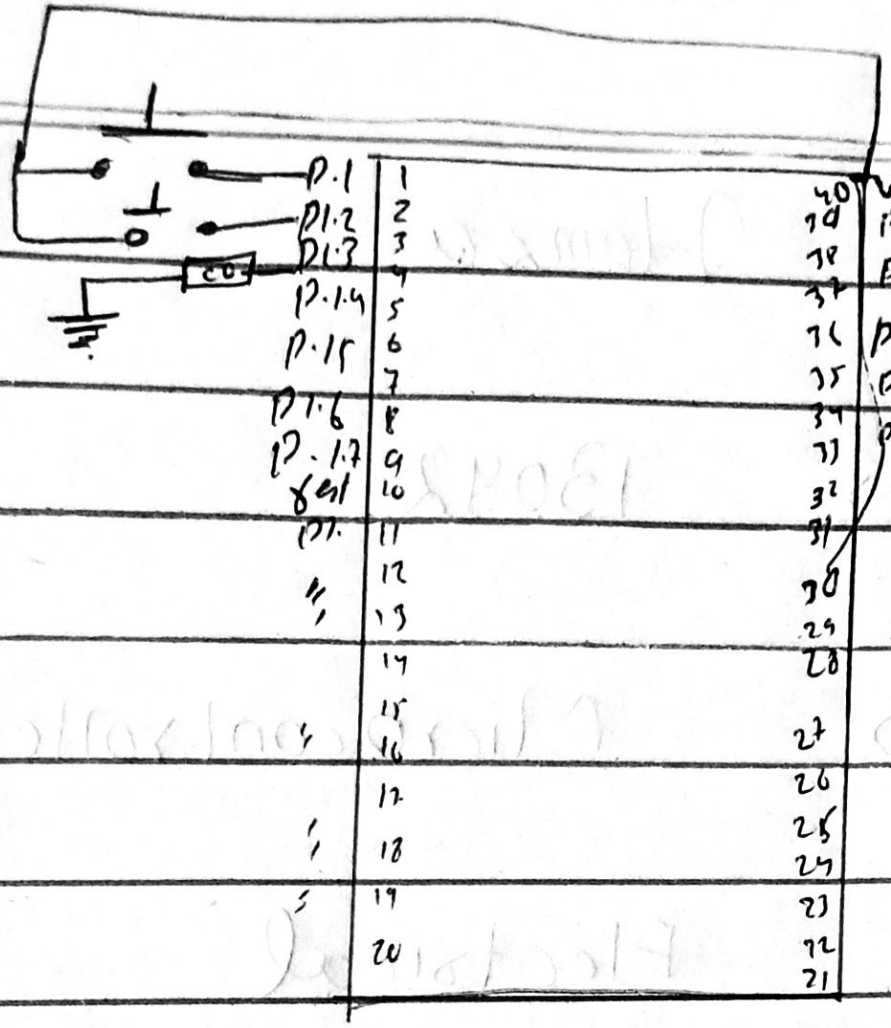
```
#include <reg51.h>;
sbit led green = P1^0
sbit led Red = P1^1
void main()
  {
    IF (SW1 == 1)
    {
      led green = 0;
      led Red = 1;
    }
  else
    {
      led green = 1;
      led Red = 0;
    }
  }
```



Program:

(B)

```
#include <reg51.h>;
sbit sw1 = P1^0;
sbit sw2 = P1^1;
sbit w = P11^2;
int = i;
void main ()
{
if (sw1==1)
{
for (i=0; i<=99; i++)
cout << i;
if (i==99)
{
cout<<"no entry";
}
}
else if (sw2==1)
{
FOR (i=[illegible]; i>=99; i--)
cout<<i;
}
```


P1.1
P1.2
P1.3
P1.4
P1.5
P1.6
P1.7
RST
VCC
P0.0
P0.1
P0.2
P0.3

Q3 Answer:

```
#include <reg51.h>
sbit led = P3^10:
void delay (unsigned int x) {
unsigned int y, z,;
FOR (y= 0; y =<x; y++)
FOR (z= 0; z <= 1275; z++)
  }
void main ( )
  {
while (1)
  {
led =0;
delay (-350);
led =1;
  delay (-350);
  }
  }
```

error #1 = #incl9de

error #2 = 51

error #3 = P3^10

error #4 = small led

error #5 = small letter d

error #6 = small letter l

error #7 = small letter d

END