Assignment #1

Roll_no. 20K-0409

Name: Mukandi

Q1

-65 in 1 and 2 comp.

65 in binary number form :-

01 000001

1's

10111110

2's

1 000001

+ 1

1 000010

2's 10111110

10111111 Ans.

Q2

Floating point format of: 10001001111

i) $1.0001001111 \times 2^{10}$

ii) 10 + 127 = 137

10001001 = 137

S	E	F
0	10001001	00010011110000000000000
1bit	8bit	23 bit

Ans.

Q3

Add BCD

```
     111
  10010111        +1
+ 01000011        +1
  1101ΦΦ10        +1
                  3
                  011
```

Q4

Add

```
   101
   101
  1010  = 10.
```

Q5

Solve

i)

```
    101
  x 101
    101
   000x
  101xx
  11001 = 25.
```

ii)

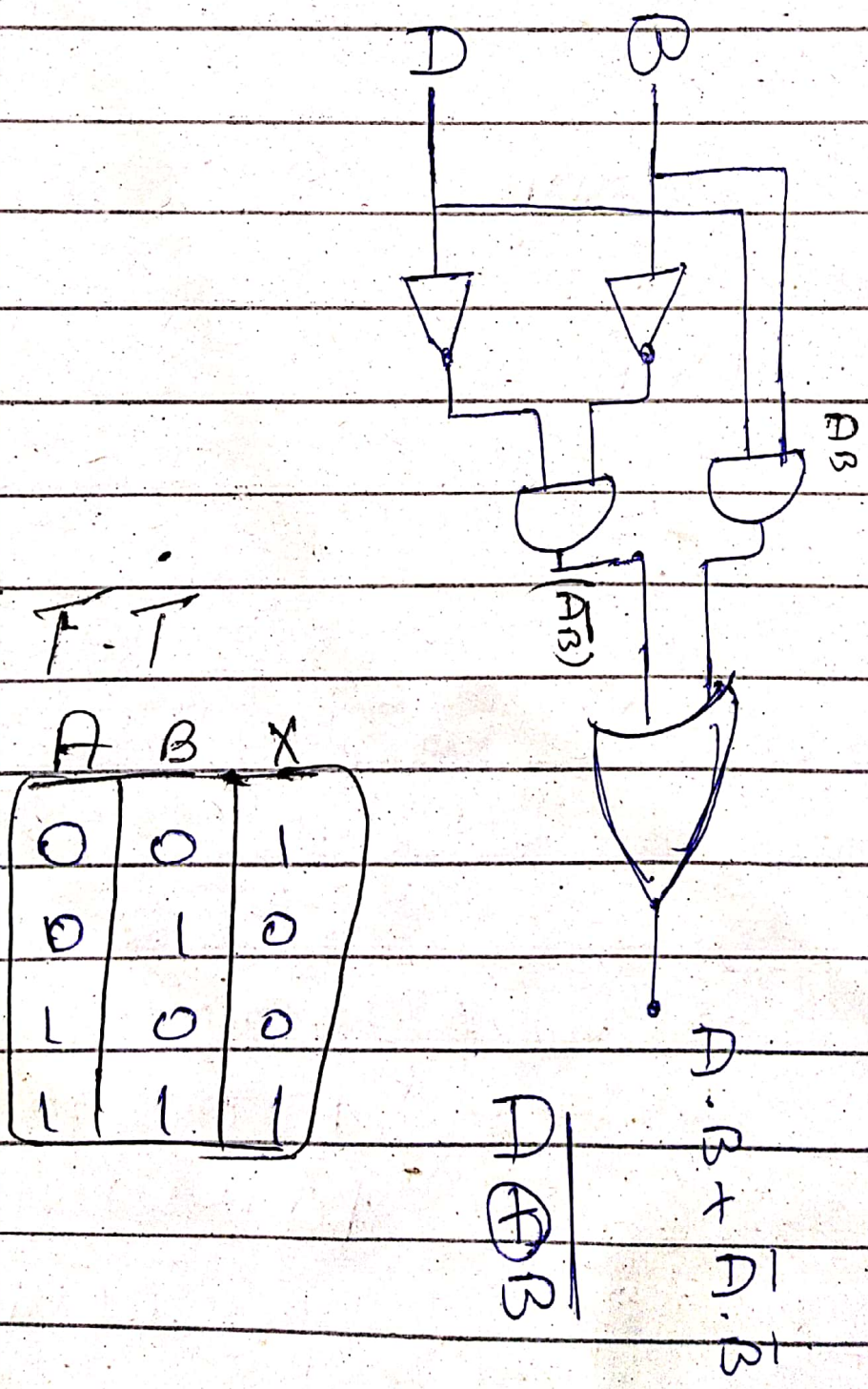
```
       1
 101 | 101
       101
         1
```

25/25 = 1

Q6.

Circuit.

X-NOR is circuit which gives output when all inputs are Same



A	B	X
0	0	1
0	1	0
1	0	0
1	1	1