

Saif Ahmed  
661925946

10/2/19  
ahmeds7

# CoCo Lab 4

1 A:

YZ \ WX	00	01	11	10
00	1	1	1	1
01	0	0	1	0
11	0	1	0	1
10	1	1	1	1

YZ \ WX	00	01	11	10
00	1	1	1	1
01	0	0	1	0
11	0	1	0	1
10	1	1	1	1

~~$$F = \bar{Y}\bar{Z} + WX\bar{Y} + Y\bar{W}X + W\bar{X}Y + YZ$$~~

$$F = \bar{Z} + \bar{W}XY + WX\bar{Y} + W\bar{X}Y$$

1 B: From expresso:  $F = \bar{Z} + \bar{W}XY + WX\bar{Y} + W\bar{X}Y$

2 A:  $D = \bar{A}BC + A\bar{B}C + AB\bar{C} + ABC$

B:

C \ AB	00	01	11	10
0	0	0	1	0
1	0	1	1	1

2 C:

C \ AB	00	01	11	10
0	0	0	1	0
1	0	1	1	1

~~Derive AB~~

$$D = BC + AC + AB$$

C \ AB	00	01	11	10
0	0	0	1	0
1	0	1	1	1

2D:

Through espresso:

$$D = BC + AC + AB$$

```
#Lab4 problem 1 part b input
```

```
.i 4
```

```
.o 1
```

```
0000 1
```

```
0001 0
```

```
0010 1
```

```
0011 0
```

```
0100 1
```

```
0101 0
```

```
0110 1
```

```
0111 1
```

```
1000 1
```

```
1001 0
```

```
1010 1
```

```
1011 1
```

```
1100 1
```

```
1101 1
```

```
1110 1
```

```
1111 0
```

#Lab4 problem 1 part b output

.i 4

.o 1

.p 4

110- 1

101- 1

011- 1

---0 1

.e

#resultant expression:  $F = Z' + W'XY + WXY' + WX'Y$

#line above added for clarity

# #lab4 problem 2 part D input

.i 3

..

.o 2

000 00

001 01

010 01

011 10

100 01

101 10

110 10

111 11

#lab4 problem 2 part D output

.i 3

.o 2

.p 7

100 01

010 01

001 01

111 01

-11 10

1-1 10

11- 10

.e

#resultant expression:  $D = BC + AB + AC$

#line above added for clarity