

# CPEN 411

## Assignment 0

### Question 1

R1 = 0x0000 0000 0000 0008  
R2 = 0x0000 0000 0004 0000  
R3 = 0x0000 0000 0004 0008  
R4 = 0x0000 0000 0400 0800

### Question 2

```
#include <stdio.h>
#define FOO(W) if (W > 4)\
                glurph = 2;\ else\
                glurph = 1;
#define BAR(X, Y) (X + Y)
int main(int argc, char **argv) {
    int glurph;
    FOO(BAR(2, 3));
    printf("%d\n", glurph);
}
```

FOO(BAR(2,3)) => FOO(5) => glurph 2

output: 2

### Question 3

Control Signal	Cycle 1	Cycle 2	Cycle 3	Cycle 4
top-mux-sel	0	0	-	1
write	0	0	0	1
writenum (3 bits)	-	-	-	001
readnum (3 bits)	010	011	-	-
loada	1	0	0	-
loadb	0	1	0	-
muxa-sel	0	0	1	-
muxb-sel	0	0	1	-
alu-op (2 bits)	-	-	00	-
loadc	0	0	1	0