

EE 2920

Dr. Johnson

Homework 2

1 – Evaluate each of the following expressions – given:

30pts

```
int8_t a = 3;  
int8_t b = 145;  
int8_t c = 70;  
int8_t d;
```

d =

d = b +

d = a / b

d = c % b

d = c \* a

d = c >> 3

d = 3 << a

d = ~a

d = a | b - 2\*c

d = a && (b - 3\*c)

2 – Evaluate each of the following expressions – given:

30pts

```
int8_t a=9; int8_t b=5; int8_t c=4;  
uint8_t d=6; uint8_t e=10; uint8_t f=11;  
char g='b'; char h='B';  
float i = 1.414; float j = 3.14159;  
int8_t w;  
uint8_t x;  
char y;  
float z;
```

$w = a*b/c|a\&b-c\%a+b$

$x = \sim d - e\%f >> 3 << 3\%2$

$y = g/h + g*h - 144$

$z = i/j + j*5 - 2*i/.5$

### 3 – Provide the value of a,b,c after executing the following code snippets. 10pts ea

int a,b,c;

evaluate each problem individually

with a = 3, b = 2, c = 1

```
if (c == 0 || a && !b)
```

```
    if (!c)
```

```
        b = 1;
```

```
else
```

```
    a = 2;
```

with a = 0, b = 5, c = 4

```
if (c = a){
```

```
    b++;
```

```
    c--;
```

```
}
```

```
else
```

```
    --c;
```

a      b      c

with a = 4, b = 2, c = 3

```
if (c = b){
```

```
    b++;
```

```
    c--;
```

```
}
```

```
else
```

```
    --c;
```

with a = 5, b = 0, c = 5

```
if (c = a < b){
```

```
    a += 3;
```

```
    b -= 1;
```

```
}
```

```
else
```

```
    a = b++;
```