

Question #1 (50 points)

Inside our C program we have the following lines of code:

```
#define Bit_Zero 0x01
#define Bit_One 0x02
#define Bit_Two 0x04
#define Bit_Three 0x08
#define Bit_Four 0x10
#define Bit_Five 0x20
#define Bit_Six 0x40
```

Assuming an integer has 32 bits, what will be the contents of the following variables ?

```
int x = 0x0B;

int y = 011;

int z = x << 2;

int z1 = y & Bit_Three;

int z2 = z | Bit_Four;
```

Question #2 (50 points)

Give the binary value of the least significant 8 bits of the following values:

```
int aa = 0xC5;    // aa = [          ]

int ab = 017 + 1; // ab = [          ]

int a = x | y;    // a  = [          ]

int b = Bit_Two | Bit_Five | Bit_Seven;
        // b  = [          ]

int c = ~(z | Bit_Zero) << 1;
        // c  = [          ]

int d = !(z1 | Bit_Two);
        // d  = [          ]
```