

Blake Cash  
Homework #5  
4/12/18

Question 1:

240 Bytes

Any 1-bytes are made to go up 1 due to alignment, then combining all the results gives us 20 bytes, increase to 24 to make a multiple of 8, multiply by ten to get 240

Question 2:

Structural Equivalence: All are type equivalent

Strict Name Equivalence: D not equivalent with any, A and B not equivalent with C

Loose Name Equivalence: D not equivalent with any, A and B as well as C are not equivalent with one another.

Question 3:

AllocateCell deletes q at the end of it's life, creating a dangling reference

The below revised code solves that issue

```
Cell* AllocateCell()
{
    Cell q = (Cell *) malloc (sizeof(Cell));
    return q;
}

void main()
{
    Cell *c = AllocateCell();
    c->a;
    free(c);
}
```

Question 4:  $3 \times 10 \times 8 = 240$

$7 \times 8 = 56$

$1000 + 240 + 56 = \underline{1296}$