ECE 264

Lab 9

Warm-up 1

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## Warm-up Exercise 5:

Given the following declarations:

char AR[10]; short WW[13]; double M[100]; char \*cp; short \*sp; short \*sp2; double \*dp;

Suppose:

AR is located at address 500 WW is locates at address 2100 M is located at address 3340

Determine the following:

1. dp after executing dp = &M[5];

**M[5] = M + 5\*8**

**M[5]= 3380**

**Dp = &M[5] + 3380**

**Dp = 3380**

1. cp after executing cp = &AR[4];

**AR = 500**

**AR[4] = 500 + 4\*1**

**AR[4] = 504**

**Cp = 504**

1. dp after executing dp = M+9;

**M = 3340+9\*8**

**= 3412**

**dp= 3412**

1. Suppose we execute sp=WW; and then we execute sp = sp+5. Now determine sp

**sp=WW=2100**

**sp+5 = 2100+5\*2**

**sp+5 = 2110**

1. Determine sp – sp2

After executing sp=&WW[7]; and sp2=&WW[2]

**Sp = 2100 + 2\*7, sp2 = 2100 + 2\*2**

## 

## Sp = 2114, sp2 = 2104

## Sp – sp2 = 10

## Warm-up Exercise 6:

Consider the following declarations:

short T[3] = {6, 17, 3};

short \*sp =T;

short x;

a) x = 10 - \*sp+1;

**x = 10 – 6 + 1**

**x = 5**

b) x = 10 - \*(sp+1)

**x = 10 – 17**

**x = -7**

c) x = 10 - \*(T+2)

**x = 10 – 3**

**x = 7**

d) X = 10 - \*(&T[1])

**&T[1] = T + 1\*2**

**&T[1] = T +2**

**\*(&T[1]) = \*(T+2) = 3**

**X = 10 – 3**

**X = 7**

d) What is \*(sp+3)

**It is a junk value or as VS displayed -13108**