

1. Write the following in 2-digit hex.

(a) 0xA2 & 0x06

0x02

(b) 0xB9 >> 3

0x17

2. How many bytes are typically used to store a

(a) char? **1**

(b) int? **4**

(c) float? **4**

3. You are given the following C code in a function:

```
int num=9; float den=2; float ans1, ans2;
ans1 = num/den; ans2 = num/((int) den);
```

(a) What is the value of ans1? **4.5**

(b) What is the value of ans2? **4**

4. You are given the following C code:

```
double d; float f; int i; int *ip;
ip = &i;
scanf("%f %lf %d", -- MISSING CODE --
processData(ip, f, d);
```

(a) Finish the last half of line 2, i.e., replace -- MISSING CODE --.

&f, &d, ip); or &f, &d, &i);

(b) Give a line of C code with a correct prototype for processData().

void processData(int *a, float b, double d);

5. The code below is inside a function, so x and arr are local variables. Give the value of x after each line below, or write error/unknown.

```
int x, arr[5] = {5, 4, 3, 2, 1}; // (a) x equals err/unk
x = arr[5]; // (b) x equals err/unk
x = *arr; // (c) x equals 5
x = &arr; // (d) x equals err/unk
x = *(arr+3); // (e) x equals 2
x = *(&(arr[2]) - 2) + 4; // (f) ?? 9 or err/unk OK
x = arr[* (arr+2)]; // (g) x equals 2
```

6. Write the output of the following loop:

```
int i;
for (i = 10; i != 7; i--) printf("%d ",i); 10 9 8
```