

CSCI1320 Quiz 8 Structures - Key

(20 points) Write code to accomplish each of the following:

1. (3 points) Define a structure called `part` containing `int` variable `partNumber` and `char` array `partName` with values that may be as long as 25 characters (including the terminating null character).

```
struct part{
    int partNumber;
    char partName[25];
};
```

2. (3 points) Define `Part` to be a synonym of the type `struct part`.

```
typedef struct part Part;
```

3. (3 points) Use `Part` to declare variable `a` to be of type `struct part` and variable `ptr` to be of type pointer to `struct part`.

```
Part a, *ptr;
```

4. (3 points) Read a part number and a part name from the keyboard into the individual members of variable `a`.

```
scanf("%d%s", &a.partNumber, a.partName);
```

5. (3 points) Assign the address of variable `a` to the pointer variable `ptr`.

```
ptr = &a;
```

6. (5 points) Print the member values of variable `a` using the variable `ptr` and the structure operator `.` to refer to the members.

```
printf("%d %s\n", (*ptr).partNumber, (*ptr).partName);
```