### Problem ST-2 (3 parts)

#### Part A:
The following variables are allocated in memory beginning at address 5000. Complete the memory map below with the variable names at each word or byte in memory. Do not include the variable’s value.

```c
int A;
int B[] = {1, 2};
char C = ‘z’;
char D[] = “Hello”;
int *E;
char *F;
```

#### Part B:
Suppose the following code follows the definitions in Part A. List the values of the listed variables following execution of this code.

```c
E = B;
A = *E + E[1];
F = &(D[1]);
C = *F;
```

#### Part C:
Consider the following structure declaration.

```c
struct State {
    int Num;
    char Name[NAMELENGTH];
    int YearPop[NUMYEARS];
    float Growth;
};
```

Suppose S is a pointer to a previously allocated and initialized State object. Write proper C statements to perform the following structure accesses.

Store initial year population in integer P

Store first character of Name in character C

Set Growth to percentage growth between years 0 and 1. (Don’t worry if it’s the max.)