1 Answer each of the following:
a) A pointer variable contains as its value the _____ of another variable.
b) The two values that can be used to initialize a pointer are _____ , and _____.

2 Answer each of the following. Assume that single-precision floating-point numbers are stored in 4 bytes, and that the starting address of the array NUM is at location 1002500 in memory.
a) What is the address of the fifth element of the array?
b) State two ways of accessing the fourth element

3 For each of the following, write a statement that performs the indicated task. Assume that floating-point variables number1 and number2 are defined and that number1 is initialized to 7.3.
a) Define the variable fPtr to be a pointer to an object of type float.
b) Assign the address of variable number1 to pointer variable fPtr.
c) Read a value into the object pointed to by fPtr.
d) Assign the value of the object pointed to by fPtr to variable number2.

4 Find the error in each of the following program segments. Assume

```
int *zPtr; // zPtr will reference array z
int *aPtr = NULL;
int number;
int z[5] = {1, 2, 3, 4, 5};
```

a) ++zptr;
b) number = zPtr;
c) number = *zPtr[2];
d) ++z;

5 Give the necessary declarations for making a pointer point to the third row of a 5 by 5 2D array Table of type int.

6. Explain each of the following: a)*p++ b)(*p)++ *c)*++p d)++*p

7. scores[i][j] expressed in pointer form is _____; if p points to a row in a 2D array, then expressing (*p)[n] using only pointers is _____.

Programming :
1. Write a function ***void Reverse2D(int table[][n], int m)*** that prints the 2D array backward row by row using only pointers.

2. Write a function ***void sortScores(int grades[][n], int m, int col)*** that takes a 2D array on ints and a column to sort on and modifies the array so that the specified column is sorted from low to high and associated grades are rearranged.

3. Write ***char * strstr(char * s1, char * s2)*** that returns a pointer to the first occurrence of the string s2 in s1, or NULL if s2 cannot be found.