Homework 3: Data-Variables and Constants

Q 1. TRUE/FALSE STATEMENTS

1. An identifier must begin with a letter or underscore but can contain numerals elsewhere.
2. A constant doesn't have a name.
3. A variable name can contain a hyphen except at the beginning.
4. An uninitialized variable does not necessarily have the value 0.
5. int and float are fundamental data types.
6. The size of a char is one or two bytes long.
7. A fractional number is also known as a real number.
8. The choice of the floating point type is determined by the range that is needed.
9. char data can be represented by a character enclosed within double quotes.
10. It is possible tor the float, double and long double data types to have the same range.
11. The constant 9L is the integer 9 stored as a long.
12. An array stores data of the same type.
13. The array index 12 represents the 12th element.
14. An array of type char must contain the NUL character at the end.

Q 2. FILL IN THE BLANKS

1. It is not possible to use default, char and int as variable names because they are _____ words.
2. Variable _____ makes type information available to the compiler, while the _____allocates memory for the variable.
3. The compiler determines the data type of a _____ by simple examination.
4. The _____ operator evaluates the size of a data type, variable or a constant.
5. The minimum size of an int _____ is bytes and that of a long is _____bytes.
6. C identifies a number with the _____ and _____ prefixes as octal and hexadecimal, respectively.
7. The float and double data types handle _____ and _____digits of precision, respectively.
8. The constant 'S' is stored as an _____.
9. The symbols '\c' represent an _____.
10. The array is a ____ data type.

Q 3. MULTIPLE-CHOICE QUESTIONS

1. When the compiler sees a variable of type int, it allocates

   (A) 2 bytes   (B) 4 bytes

   (C) at least 2 bytes   (D) depends on the machine.

2. The compiler uses type information of a variable to determine

   (A) the number of bytes to allocate   (B) the way the bytes are interpreted

   (C) A and B   (D) none of these.

3. A string is

   (A) derived from the char type   (B) an array of characters

   (B) not a user-defined type   (D) all of these.

4. The size of a long is

   (A) greater than or equal to an int   (B) less than or equal to an int

   (C) greater than an int   (D) none of these.

5. A signed char variable can be assigned

   (A) an integer not exceeding 255   (B) the constant '2'.

   (C) an integer between -127 and 128   (D) none of these.

6. The array int arr [20] needs

   (A) 20 bytes   (B) 20 X sizeof(int) bytes

   (C) 40 bytes   (D) 80 bytes

7. The symbols '\0 'represent the

   (A) octal value of 0   (B) the NUL character having the value 0

   (B) a single-character string   (D) none of these.