# Keywords, Identifier, Literals, Operators and Expression Assignment

**Mandatory:**

1. Choose all valid identifiers
   1. int int

Ans. Invalid

* 1. int \_numvalue

Ans. Valid

* 1. float price\_money

Ans. Valid

* 1. char name1234567890123456789012345678901234567890

Ans. Valid

* 1. char name value

Ans. Invalid

* 1. char $name

Ans. Invalid

1. What is the meaning of the following keywords, show the usage
   1. **auto**

Ans. Auto keyword is used to declare a variable that has a complicated type in a simple way. For instance we can declare a variable where the initialization expression involves templates, pointers to functions, pointers to members etc.

* 1. **extern**

Ans. Extern Keyword is used to extend the visibility of the program or variable. By Default the functions are visible throughout the program, there is no need to declare or define extern functions. Variables with extern keywords are only declared not defined

* 1. **volatile**

Ans. When a variable is declared, the qualifier "volatile" is added. It informs the compiler that the value of the variable might change at any point without the neighbouring code doing anything.

* 1. **Sizeof**

Ans. The size of its operand can be determined using the compile-time unary operator sizeof. Sizeof returns an unsigned integral type, which is often represented by the symbol size t.

* 1. **Const**

Ans. The const keyword specifies that a variable's value is constant and tells the compiler to prevent the programmer from modifying it.

1. Explain the difference between the following variables.
   1. char \*ptr = “ABC”;
   2. char arr[]=”ABC”;

Ans. char \*ptr = “ABC”; basically stores the “ABC” as a reference but the other char arr[] = “ABC”; is stroring “ABC” as the string. The Data from the string can be accessed by using index such as arr[1] = “A”.

Can you manipulate the contents of ptr? Why?

Ans. Yes the contents of ptr can be manipulated. A variable that stores the memory address of another variable is known as a pointer. The address's contents can be changed by using the pointer variable. The address can be changed using the pointer variable.

Can you manipulate the contents of arr? Why?

Ans. Yes the contents of arr can be manipulated. The contents can be manipulated by various actions which are known as Methods.

Which one of the above is a string literal?

Ans. Array is a String Literal

char arr[] = “ABC”;

1. Predict the output of the following code .

void main()

{

//set a and b both equal to 5.

int a=5, b=5;

//Print them and decrementing each time.

//Use postfix mode for a and prefix mode for b.

printf("\n%d %d",a--,--b);

printf("\n%d %d",b++,--b);

}

Ans. 5 4

3 4

1. Refer the code snippet. It fails with error. Fix it.

#include<stdio.h>

int main()

{

int i,k;

const int num;

/\* for(i = 0;i < 9;i++)

{

k = k + 1;

} \*/

num = num + k; /\* Compiler gives the error here \*/

printf("final value of k:%d\n",k);

printf("value of num:%d\n",num);

return 0;

}

Ans. The above snippet code fails because of the const keyword. It makes the int num a read only variable, This can be solved by removing the const keyword.

After removing const keyword, we get the following output

*Final value of k:0*

*Value of num:0*

6. Consider the following code snippet. Evaluate the value of f1, f2 and f3.

int main()

{

int i = 10;

int j = 3;

float f1 = i / j;

float f2 = (float ) i / j;

float f3 = (float ) (i / j);

}

Ans. f1 = 3.000000

f2 = 3.333333

f3 = 3.000000