## **Keywords, Identifier, Literals, Operators and Expression Assignment**

**Q1) Choose all valid identifiers**

* 1. int int
  2. int \_numvalue
  3. float price\_money
  4. char name1234567890123456789012345678901234567890
  5. char name value
  6. char $name

**Ans : (B) int \_numvalue**

**(C) float price\_money**

**(D) char name12345678 90123456789012345678901234567890**

**Q2) What is the meaning of the following keywords, show the usage**

* 1. **Auto**: Auto is a storage class/ keyword in C Programming language which is used to declare a local variable.
  2. **Extern**: ot is used **to extend the visibility of function or variable**. By default the functions are visible throughout the program, there is no need to declare or define extern functions. It just increase the redundancy.
  3. **Volatile**: volatile keyword is **a qualifier that is applied to a variable when it is declared**. It tells the compiler that the value of the variable may change at any time--without any action being taken by the code the compiler finds nearby
  4. **Sizeof**: to find the size. When sizeof() is used with the data types, it simply **returns the amount of memory allocated to that data type**. The output can be different on different machines like a 32-bit system can show different output while a 64-bit system can show different of same data types.
  5. **Const**: to define the constant value in program. The const keyword **specifies that a variable's value is constant and tells the compiler to prevent the programmer from modifying it**. In C, constant values default to external linkage, so they can appear only in source files.

**Q3) Explain the difference between the following variables.**

* 1. char \*ptr = “ABC”;
  2. char arr[]=”ABC”;

**Ans :** char \*ptr = “ABC”; is storing the “ABC” as a reference but

char arr[]=”ABC”; Is storing the “ABC” as a value of the Array. We can access those values by arr[0]=”A”,arr[1]=”B”, arr[2]=”C”.

1. **Can you manipulate the contents of ptr? Why?**

* Yes,A pointer is a variable that holds a memory address of another variable. **The pointer variable can be used to manipulate the contents of the address**. The pointer variable can be used to manipulate the address

1. **Can you manipulate the contents of arr? Why?**

* Yes,Arrays can be manipulated by using several actions known as methods.

1. **Which one of the above is a string literal?**

* Array is 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:** by removing “const” keyword from lin 4 “const int num;” we can remove the error.

1. **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