1)Difference between global and local variable:
Ans:

Global variable	Local variable
It is declared outside of every block.	It is declared inside a specific block.
It can be accessed throughout the entire program.	It can be accessed only within the declared block.
The variable life time is until the entire program is executed.	The variable life time is only till the block is executed after which it is deleted.
By default, if not assigned a value, the declared variable is assigned to zero by the compiler.	By default if not assigned with a value, garbage value is assigned to the variable by compiler.

2)Scope of static variable:
Ans: If a static variable is declared as a global variable it acts as an global variable only to that file and cannot be used in any other files.

If it is declared within a specific block of code it stays in the memory even after the execution of that block.

By default, a static variable is assigned to zero.

Example:

```
#include<stdio.h>
int increment()
{
static int count;
return ++count;
}
int main()
{       int p,q;
        p=increment();
        printf("%d\t",p);
        p=increment();
        printf("%d",p);
        return 0;
}
```

```
O/P: 1         2
```

3)Stages of compilation:

Ans:

- Pre-Processing
- Compilation
- Assembly
- Linking

4)In which stage of compilation does file.s is generated:

Ans:

File.s is generated in the compilation stage, File.s is the output of compilation stage in which the human readable code is converted into assembly code for the assembler to decode.

5)C program to find whether the given number is odd or even using bitwise operators:

Ans:

```
#include<stdio.h>
int main()
{
   int num;
   printf("Enter the number to find whether it is even or odd:");
   scanf("%d",&num);
   (num & 1)? printf("The number is odd") : printf("The number is even");
   return 0;
}
```

Explanation of the code:

We know that the odd numbers in binary form ends with one and even numbers with zero, using this we are performing a bitwise and (&) with 00000001 as bit mask.

If odd, the result is one and if even, result is zero.

6)Explanation of the given code with output:

Ans:

O/P: 1

Explanation:

According to the precedence of operators in c, The equality operator (==) is given more preference than the Assignment operator (=) so in the line (x=y==z) (y==z) is executed first (5==5) which is (1) and result is assigned to x (x=1).